

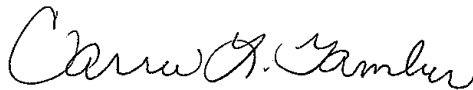
## ANALYTICAL REPORT

Job Number: 180-37750-1

Job Description: Sparrows Point Trust Offshore Investigat

For:

EA Engineering, Science, and Technology  
225 Schilling Circle  
Hunt Valley, MD 21031  
Attention: Sanita Corum



Approved for release.  
Carrie L. Gamber  
Senior Project Manager  
4/20/2015 12:55 PM

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04/20/2015  
Revision: 1

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# Table of Contents

Cover Title Page . . . . .	1
Data Summaries . . . . .	6
Report Narrative . . . . .	6
Manual Integration Summary . . . . .	8
Sample Summary . . . . .	20
Executive Summary . . . . .	21
Method Summary . . . . .	33
Method / Analyst Summary . . . . .	34
Sample Datasheets . . . . .	35
Surrogate Summary . . . . .	99
QC Data Summary . . . . .	103
Data Qualifiers . . . . .	138
QC Association Summary . . . . .	140
Lab Chronicle . . . . .	150
Reagent Traceability . . . . .	164
COAs . . . . .	260
Certification Summary . . . . .	416
Organic Sample Data . . . . .	417
GC/MS VOA . . . . .	417
Method 8260C . . . . .	417
Method 8260C QC Summary . . . . .	418
Method 8260C Sample Data . . . . .	428
Standards Data . . . . .	466
Method 8260C ICAL Data . . . . .	466
Method 8260C CCAL Data . . . . .	568
Raw QC Data . . . . .	584



# Table of Contents

Method 8260C Tune Data . . . . .	584
Method 8260C Blank Data . . . . .	593
Method 8260C LCS/LCSD Data . . . . .	601
Method 8260C MS/MSD Data . . . . .	608
Method 8260C Run Logs . . . . .	623
Method 8260C Prep Data . . . . .	626
GC/MS Semi VOA . . . . .	627
Method 8270D Low Level . . . . .	627
Method 8270D Low Level QC Summary . . . . .	628
Method 8270D Low Level Sample Data . . . . .	648
Standards Data . . . . .	758
Method 8270D Low Level ICAL Data . . . . .	758
Method 8270D Low Level CCAL Data . . . . .	885
Raw QC Data . . . . .	909
Method 8270D Low Level Tune Data . . . . .	909
Method 8270D Low Level Blank Data . . . . .	946
Method 8270D Low Level LCS/LCSD Data . . . . .	955
Method 8270D Low Level MS/MSD Data . . . . .	961
Method 8270D Low Level Run Logs . . . . .	971
Method 8270D Low Level Prep Data . . . . .	976
GC Semi VOA . . . . .	978
Method 8082A Low Level . . . . .	978
Method 8082A Low Level QC Summary . . . . .	979
Method 8082A Low Level Sample Data . . . . .	988
Standards Data . . . . .	1030
Method 8082A Low Level ICAL Data . . . . .	1030

# Table of Contents

Method 8082A Low Level CCAL Data . . . . .	1074
Raw QC Data . . . . .	1089
Method 8082A Low Level Blank Data . . . . .	1089
Method 8082A Low Level LCS/LCSD Data . . . . .	1094
Method 8082A Low Level MS/MSD Data . . . . .	1100
Method 8082A Low Level Run Logs . . . . .	1120
Method 8082A Low Level Prep Data . . . . .	1125
Inorganic Sample Data . . . . .	1129
Metals Data . . . . .	1129
Met Cover Page . . . . .	1130
Met Sample Data . . . . .	1131
Met QC Data . . . . .	1158
Met ICV/CCV . . . . .	1158
Met CRQL . . . . .	1168
Met Blanks . . . . .	1172
Met ICSA/ICSAB . . . . .	1186
Met MS/MSD/PDS . . . . .	1192
Met LCS/LCSD . . . . .	1197
Met Serial Dilution . . . . .	1201
Met MDL . . . . .	1203
Met IECF . . . . .	1213
Met Linear Ranges . . . . .	1216
Met Preparation Log . . . . .	1218
Met Analysis Run Log . . . . .	1221
Met ICP/MS Int Stds . . . . .	1239
Met Raw Data . . . . .	1243

# Table of Contents

Met Prep Data . . . . .	2053
General Chemistry Data . . . . .	2060
Gen Chem Cover Page . . . . .	2061
Gen Chem Sample Data . . . . .	2062
Gen Chem QC Data . . . . .	2080
Gen Chem ICV/CCV . . . . .	2080
Gen Chem Blanks . . . . .	2084
Gen Chem MS/MSD/PDS . . . . .	2085
Gen Chem Duplicates . . . . .	2087
Gen Chem LCS/LCSD . . . . .	2088
Gen Chem MDL . . . . .	2091
Gen Chem Preparation Log . . . . .	2101
Gen Chem Analysis Run Log . . . . .	2105
Gen Chem Raw Data . . . . .	2113
Gen Chem Prep Data . . . . .	2439
Geo Cover Page . . . . .	2453
Geo Sample Data . . . . .	2454
Geo Prep Data . . . . .	2456
Subcontracted Data . . . . .	2458
Shipping and Receiving Documents . . . . .	2459
Client Chain of Custody . . . . .	2460
Sample Receipt Checklist . . . . .	2466
Interlab Coc (where applicable) . . . . .	2468

## CASE NARRATIVE

**Client: EA Engineering, Science, and Technology**

**Project: Sparrows Point Trust Offshore Investigation**

**Report Number: 180-37750-1 REVISED**

**NOTE: This revised report reflects the updated/corrected data from TestAmerica Pittsburgh's sulfide data recall.**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 10/15/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.3° C, 1.6° C, 3.1° C, 4.6° C and 5.0° C.

### **VOLATILES**

Toluene was detected in method blank MB 180-121882/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The laboratory control sample (LCS) for batch 121881 recovered outside control limits for the following analytes: 1,2-Dichloroethane and Carbon Tetrachloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Methylene Chloride failed the recovery criteria low for the MS of sample SD-B01 (180-37750-4) in batch 180-121881. 1,2-Dichloroethane, Carbon tetrachloride and trans-1,3-Dichloropropene failed the recovery criteria high. Several analytes exceeded the RPD.

Internal standard (ISTD) response for TBA-d9 for the following sample was outside acceptance criteria: SD-B01 (180-37750-4). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

### **SEMIVOLATILES**

Several samples were diluted due to the nature of the sample matrix. As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Diethyl phthalate was detected in method blank MB 180-122598/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The laboratory control sample (LCS) 180-122598/2-A recovered outside control limits for the following analyte: Benzoic acid. These analyte was biased high and was not detected in the associated samples; therefore, the data have been reported.

Benzidine, Hexachlorocyclopentadiene and Pentachlorophenol failed the recovery criteria low for the MS/MSD of sample SD-B01 (180-37750-4) in batch 180-123272. 1,2-Diphenylhydrazine(as Azobenzene) failed the recovery criteria high.

### **PCBs**

Several samples were diluted due to the nature of the sample matrix and or abundance of target analytes. As such, surrogate recoveries are below the calibration range, and elevated reporting limits (RLs) are provided.

Surrogate DCB Decachlorobiphenyl (Surr) failed the surrogate recovery criteria for several samples. Surrogate Tetrachloro(m)-xylene recovered within QC limits. All data was reported.

### **AVS/SEM**

The following samples were diluted due to the presence of iron, which interferes with nickel and lead: SD-B02 (180-37750-5), SD-B02-FD (180-37750-6), SD-C03 (180-37750-9). Elevated reporting limits (RLs) are provided.

Copper SEM and Zinc SEM were detected in method blank MB 180-121962/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Cadmium SEM, Copper SEM and Zinc SEM failed the recovery criteria low for the MS of sample SD-B01 (180-37750-4) in batch 180-123073. Zinc SEM failed the recovery criteria low for the MSD of sample SD-B01 (180-37750-4) in batch 180-123073. Zinc SEM exceeded the RPD limit. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

#### **METALS**

Chromium, Lead and Zinc were detected in method blank MB 180-123380/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Lead failed the recovery criteria high for the MS of sample SD-B01 (180-37750-4) in batch 180-123945. For the MSD of sample SD-B01 (180-37750-4) in batch 180-123945, Beryllium and Selenium failed the recovery criteria low. Lead failed the recovery criteria high. Also, Selenium exceeded the RPD limit. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The serial dilution and post digestion spike performed for the following sample was outside of the control limits for antimony and/or zinc.: SD-B01 (180-37750-4)

#### **GENERAL CHEMISTRY**

HEM was detected in method blank MB 180-122780/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

HEM failed the recovery criteria low for the MS/MSD of sample SD-B01 (180-37750-4).

Total Organic Carbon - Duplicates exceeded the RPD limit for the MS/MSD of sample SD-B01 (180-37750-4) in batch 180-122589.

The reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

#### **GEOTECHNICAL**

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Analysis Batch Number: 98978Lab Sample ID: IC 180-98978/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/07/14 05:54 Lab File ID: 3030702.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.31	Poor chromatography	gordonk	03/07/14 08:30
Isopropyl alcohol	4.17	Peak Tail	gordonk	03/07/14 08:30

Lab Sample ID: IC 180-98978/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/07/14 06:20 Lab File ID: 3030703.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.31	Poor chromatography	gordonk	03/07/14 08:31

Lab Sample ID: IC 180-98978/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/07/14 06:45 Lab File ID: 3030704.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.31	Peak Tail	gordonk	03/07/14 08:32

Lab Sample ID: IC 180-98978/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/07/14 07:09 Lab File ID: 3030705.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.31	Peak Tail	gordonk	03/07/14 08:33
Isopropyl alcohol	4.18	Peak Tail	gordonk	03/07/14 08:33

Lab Sample ID: IC 180-98978/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/07/14 07:32 Lab File ID: 3030706.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.33	Peak Tail	gordonk	03/07/14 08:33

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Analysis Batch Number: 118826Lab Sample ID: IC 180-118826/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/22/14 11:07 Lab File ID: 30922K03.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.80	Poor chromatography	gordonk	09/22/14 11:24
Chloroethane	2.64	Poor chromatography	gordonk	09/22/14 11:24
Trichlorofluoromethane	2.99	Poor chromatography	gordonk	09/22/14 11:24
Ethyl ether	3.43	Poor chromatography	gordonk	09/22/14 11:24
Acrolein	3.59	Poor chromatography	gordonk	09/22/14 11:24
1,1-Dichloroethene	3.76	Poor chromatography	gordonk	09/22/14 11:24
Iodomethane	4.01	Poor chromatography	gordonk	09/22/14 11:24
Carbon disulfide	4.07	Poor chromatography	gordonk	09/22/14 11:24
Allyl chloride	4.35	Poor chromatography	gordonk	09/22/14 11:24
Methylene Chloride	4.54	Poor chromatography	gordonk	09/22/14 11:24
Acrylonitrile	4.92	Poor chromatography	gordonk	09/22/14 11:24
Methyl tert-butyl ether	5.01	Poor chromatography	gordonk	09/22/14 11:24
Vinyl acetate	5.67	Poor chromatography	gordonk	09/22/14 11:24
1,1,2,2-Tetrachloroethane	11.99	Poor chromatography	gordonk	09/22/14 11:24
1,2-Dibromo-3-Chloropropane	14.20	Poor chromatography	gordonk	09/22/14 11:24

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Analysis Batch Number: 118826Lab Sample ID: IC 180-118826/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/22/14 11:29 Lab File ID: 30922K04.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroethane	2.61	Poor chromatography	gordonk	09/22/14 11:29
Dichlorofluoromethane	2.92	Poor chromatography	gordonk	09/22/14 11:29
Trichlorofluoromethane	2.96	Poor chromatography	gordonk	09/22/14 11:29
Ethyl ether	3.43	Poor chromatography	gordonk	09/22/14 11:29
1,1,2-Trichloro-1,2,2-trifluoroethane	3.80	Poor chromatography	gordonk	09/22/14 11:29
Iodomethane	3.97	Poor chromatography	gordonk	09/22/14 11:29
Carbon disulfide	4.13	Poor chromatography	gordonk	09/22/14 11:29
Methylene Chloride	4.56	Poor chromatography	gordonk	09/22/14 11:29
trans-1,2-Dichloroethene	4.95	Poor chromatography	gordonk	09/22/14 11:29
1,2-Dibromo-3-Chloropropane	14.20	Poor chromatography	gordonk	09/22/14 11:29

Lab Sample ID: IC 180-118826/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/22/14 11:52 Lab File ID: 30922K05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.03	Poor chromatography	gordonk	09/22/14 11:49
Acrolein	3.60	Poor chromatography	gordonk	09/22/14 11:49
Iodomethane	4.00	Poor chromatography	gordonk	09/22/14 11:49



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Analysis Batch Number: 121881Lab Sample ID: CCVIS 180-121881/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/17/14 20:43 Lab File ID: 31017K02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.01	Poor chromatography	gordonk	10/17/14 20:40
1,1-Dichloroethene	3.77	Poor chromatography	gordonk	10/17/14 20:40
Iodomethane	4.00	Poor chromatography	gordonk	10/17/14 20:40
Carbon disulfide	4.09	Poor chromatography	gordonk	10/17/14 20:40

Lab Sample ID: LCS 180-121882/2-A Client Sample ID: \_\_\_\_\_Date Analyzed: 10/17/14 22:10 Lab File ID: 31017K05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.61	Poor chromatography	gordonk	10/17/14 22:12

Lab Sample ID: 180-37750-4 MSD Client Sample ID: SD-B01 MSDDate Analyzed: 10/17/14 22:56 Lab File ID: 31017K07.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.60	Poor chromatography	gordonk	10/18/14 10:23

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731 Analysis Batch Number: 116278Lab Sample ID: IC 180-116278/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/28/14 02:22 Lab File ID: V0828003.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	1.76	Poor chromatography	piccolino v	08/28/14 07:00
N-Nitrosodimethylamine	2.43	Poor chromatography	piccolino v	08/28/14 07:00
Pyridine	2.53	Poor chromatography	piccolino v	08/28/14 07:00
Benzoic acid	7.16	Poor chromatography	piccolino v	08/28/14 07:00
2,4-Dinitrophenol	9.13	Poor chromatography	piccolino v	08/28/14 07:00
Di-n-octyl phthalate	15.11	Poor chromatography	piccolino v	08/28/14 07:00
Benzo[k]fluoranthene	16.03	Poor chromatography	piccolino v	08/28/14 07:00
Indeno[1,2,3-cd]pyrene	18.97	Poor chromatography	piccolino v	08/28/14 07:00
Dibenz(a,h)anthracene	19.00	Poor chromatography	piccolino v	08/28/14 07:00

Lab Sample ID: IC 180-116278/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/28/14 02:52 Lab File ID: V0828004.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
N-Nitrosodimethylamine	2.42	Poor chromatography	piccolino v	08/28/14 07:01
Pyridine	2.49	Poor chromatography	piccolino v	08/28/14 07:01
Benzoic acid	7.14	Poor chromatography	piccolino v	08/28/14 07:01

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731 Analysis Batch Number: 116278Lab Sample ID: IC 180-116278/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/28/14 03:21 Lab File ID: V0828005.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.15	Poor chromatography	piccolino v	08/28/14 07:02
Pentachlorophenol	10.24	Poor chromatography	piccolino v	08/28/14 07:02

Lab Sample ID: ICIS 180-116278/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/28/14 03:50 Lab File ID: V0828006.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.17	Poor chromatography	piccolino v	08/28/14 07:04

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731 Analysis Batch Number: 122953Lab Sample ID: 180-37750-2 Client Sample ID: SD-A02Date Analyzed: 10/28/14 23:54 Lab File ID: V1028027.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	19.00	Poor chromatography	piccolino v	10/29/14 02:21
Benzo[g,h,i]perylene	19.57	Poor chromatography	piccolino v	10/29/14 02:21

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731 Analysis Batch Number: 123272Lab Sample ID: CCVIS 180-123272/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/30/14 09:16 Lab File ID: V1030003.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzyl alcohol	6.35	Poor chromatography	piccolino v	10/30/14 10:55

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732 Analysis Batch Number: 112749Lab Sample ID: IC 180-112749/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 04:52 Lab File ID: D0728003.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
N-Nitrosodimethylamine	2.11	Poor chromatography	piccolino v	07/28/14 08:19
Pyridine	2.24	Poor chromatography	piccolino v	07/28/14 08:19
Di-n-octyl phthalate	15.64	Poor chromatography	piccolino v	07/28/14 08:19
Indeno[1,2,3-cd]pyrene	19.66	Poor chromatography	piccolino v	07/28/14 08:19
Dibenz(a,h)anthracene	19.69	Poor chromatography	piccolino v	07/28/14 08:19
Benzo[g,h,i]perylene	20.34	Poor chromatography	piccolino v	07/28/14 08:19

Lab Sample ID: IC 180-112749/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 05:18 Lab File ID: D0728004.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pyridine	2.17	Poor chromatography	piccolino v	07/28/14 08:22
Indeno[1,2,3-cd]pyrene	19.65	Poor chromatography	piccolino v	07/28/14 08:22
Dibenz(a,h)anthracene	19.69	Poor chromatography	piccolino v	07/28/14 08:22
Benzo[g,h,i]perylene	20.34	Poor chromatography	piccolino v	07/28/14 08:22

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732 Analysis Batch Number: 112749Lab Sample ID: IC 180-112749/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 05:44 Lab File ID: D0728005.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	1.46	Poor chromatography	piccolino v	07/28/14 08:24
Benzoic acid	7.13	Poor chromatography	piccolino v	07/28/14 08:24
Indeno[1,2,3-cd]pyrene	19.67	Poor chromatography	piccolino v	07/28/14 08:24
Dibenz(a,h)anthracene	19.70	Poor chromatography	piccolino v	07/28/14 08:24

Lab Sample ID: ICIS 180-112749/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 06:10 Lab File ID: D0728006.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.14	Poor chromatography	piccolino v	07/28/14 08:25

Lab Sample ID: IC 180-112749/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 07:03 Lab File ID: D0728008.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[g,h,i]perylene	20.37	Poor chromatography	piccolino v	07/28/14 08:27

Lab Sample ID: IC 180-112749/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 07:29 Lab File ID: D0728009.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	19.69	Poor chromatography	piccolino v	07/28/14 08:29

## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732 Analysis Batch Number: 112749Lab Sample ID: IC 180-112749/10 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/28/14 07:56 Lab File ID: D0728010.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	19.71	Poor chromatography	piccolino v	07/28/14 08:31



## GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732 Analysis Batch Number: 123453Lab Sample ID: CCVIS 180-123453/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/31/14 11:53 Lab File ID: D1031003.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
7,12-Dimethylbenz(a)anthracene	16.49	Poor chromatography	piccolino v	10/31/14 12:20
Benzo[g,h,i]perylene	20.35	Poor chromatography	piccolino v	10/31/14 12:20

Lab Sample ID: 180-37750-9 Client Sample ID: SD-C03Date Analyzed: 10/31/14 23:14 Lab File ID: D1031030.D GC Column: Rxi-5SilMS ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	16.61	Poor chromatography	piccolino v	11/01/14 12:47
Indeno[1,2,3-cd]pyrene	19.74	Poor chromatography	piccolino v	11/01/14 12:47
Benzo[g,h,i]perylene	20.45	Poor chromatography	piccolino v	11/01/14 12:47

## SAMPLE SUMMARY

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-37750-1	SD-A01	Sediment	10/13/2014 1145	10/15/2014 0930
180-37750-2	SD-A02	Sediment	10/13/2014 1115	10/15/2014 0930
180-37750-3	SD-A03	Sediment	10/13/2014 1020	10/15/2014 0930
180-37750-4	SD-B01	Sediment	10/13/2014 1250	10/15/2014 0930
180-37750-4MS	SD-B01	Sediment	10/13/2014 1250	10/15/2014 0930
180-37750-4MSD	SD-B01	Sediment	10/13/2014 1250	10/15/2014 0930
180-37750-5	SD-B02	Sediment	10/13/2014 1210	10/15/2014 0930
180-37750-6	SD-B02-FD	Sediment	10/13/2014 1210	10/15/2014 0930
180-37750-7	SD-C01	Sediment	10/13/2014 1530	10/15/2014 0930
180-37750-8	SD-C02	Sediment	10/13/2014 1450	10/15/2014 0930
180-37750-9	SD-C03	Sediment	10/13/2014 1430	10/15/2014 0930

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-1</b>	<b>SD-A01</b>					
Fluoranthene		18	J	20	ug/Kg	8270D LL
Pyrene		14	J	20	ug/Kg	8270D LL
Naphthalene		8.7	J	20	ug/Kg	8270D LL
Bis(2-ethylhexyl) phthalate		27	J	190	ug/Kg	8270D LL
Arsenic		1.8		0.073	mg/Kg	6020A
Cadmium		0.94		0.073	mg/Kg	6020A
Chromium		46	B	0.15	mg/Kg	6020A
Lead		13	B	0.073	mg/Kg	6020A
Selenium		0.17	J	0.36	mg/Kg	6020A
Silver		0.047	J	0.073	mg/Kg	6020A
Beryllium		0.082		0.073	mg/Kg	6020A
Thallium		0.047	J	0.073	mg/Kg	6020A
Antimony		0.17		0.15	mg/Kg	6020A
Nickel		3.7		0.073	mg/Kg	6020A
Zinc		130	B	0.36	mg/Kg	6020A
Copper		8.7		0.15	mg/Kg	6020A
Mercury		0.018	J	0.024	mg/Kg	7471A
Percent Moisture		32		0.10	%	2540G
Cyanide, Total		0.12	J	0.36	mg/Kg	9014
Total Organic Carbon - Duplicates		2700		1500	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		0.92		0.18	mg/Kg	6010B
Cadmium SEM		0.0082		0.0016	umol/g	6010B
Copper SEM		7.0	B	0.91	mg/Kg	6010B
Copper SEM		0.11	B	0.014	umol/g	6010B
Lead SEM		10		0.36	mg/Kg	6010B
Lead SEM		0.049		0.0018	umol/g	6010B
Nickel SEM		1.9		1.5	mg/Kg	6010B
Nickel SEM		0.033		0.025	umol/g	6010B
Zinc SEM		130	B	3.6	mg/Kg	6010B
Zinc SEM		2.0	B	0.056	umol/g	6010B
SEM/AVS Ratio		NC		0.0010	NONE	SEM

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-2</b>	<b>SD-A02</b>					
Anthracene		73		49	ug/Kg	8270D LL
Benzo[a]anthracene		160		49	ug/Kg	8270D LL
Benzo[b]fluoranthene		310		49	ug/Kg	8270D LL
Benzo[k]fluoranthene		110		49	ug/Kg	8270D LL
Benzo[g,h,i]perylene		260		49	ug/Kg	8270D LL
Benzo[a]pyrene		210		49	ug/Kg	8270D LL
Chrysene		210		49	ug/Kg	8270D LL
Dibenz(a,h)anthracene		61		49	ug/Kg	8270D LL
Fluoranthene		410		49	ug/Kg	8270D LL
Fluorene		29	J	49	ug/Kg	8270D LL
Indeno[1,2,3-cd]pyrene		250		49	ug/Kg	8270D LL
Phenanthrene		120		49	ug/Kg	8270D LL
Pyrene		270		49	ug/Kg	8270D LL
Acenaphthylene		76		49	ug/Kg	8270D LL
Naphthalene		200		49	ug/Kg	8270D LL
Bis(2-ethylhexyl) phthalate		250	J	490	ug/Kg	8270D LL
Arsenic		17		0.14	mg/Kg	6020A
Cadmium		5.4		0.14	mg/Kg	6020A
Chromium		400	B	0.28	mg/Kg	6020A
Lead		160	B	0.14	mg/Kg	6020A
Selenium		2.0		0.70	mg/Kg	6020A
Silver		0.86		0.14	mg/Kg	6020A
Beryllium		0.72		0.14	mg/Kg	6020A
Thallium		0.40		0.14	mg/Kg	6020A
Antimony		1.5		0.28	mg/Kg	6020A
Nickel		30		0.14	mg/Kg	6020A
Zinc		980	B	0.70	mg/Kg	6020A
Copper		98		0.28	mg/Kg	6020A
Mercury		0.26		0.048	mg/Kg	7471A
Percent Moisture		66		0.10	%	2540G
Total Organic Carbon - Duplicates		42000		2900	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		3.8		0.37	mg/Kg	6010B
Cadmium SEM		0.034		0.0033	umol/g	6010B
Copper SEM		40	B	1.8	mg/Kg	6010B
Copper SEM		0.62	B	0.029	umol/g	6010B
Lead SEM		86		0.73	mg/Kg	6010B
Lead SEM		0.41		0.0035	umol/g	6010B
Nickel SEM		15		2.9	mg/Kg	6010B
Nickel SEM		0.26		0.050	umol/g	6010B
Zinc SEM		680	B	7.3	mg/Kg	6010B
Zinc SEM		10	B	0.11	umol/g	6010B
SEM/AVS Ratio		0.51		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		750		44	mg/Kg	9034
Acid Volatile Sulfides (AVS)-SEM/AVS		23		1.4	umol/g	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-3</b>	<b>SD-A03</b>					
Anthracene		79	J	300	ug/Kg	8270D LL
Fluoranthene		390		300	ug/Kg	8270D LL
Phenanthrene		180	J	300	ug/Kg	8270D LL
Pyrene		380		300	ug/Kg	8270D LL
Acenaphthylene		110	J	300	ug/Kg	8270D LL
Naphthalene		310		300	ug/Kg	8270D LL
Arsenic		26		0.23	mg/Kg	6020A
Cadmium		7.1		0.23	mg/Kg	6020A
Chromium		760	B	0.45	mg/Kg	6020A
Lead		240	B	0.23	mg/Kg	6020A
Selenium		2.8		1.1	mg/Kg	6020A
Silver		1.6		0.23	mg/Kg	6020A
Beryllium		1.0		0.23	mg/Kg	6020A
Thallium		0.55		0.23	mg/Kg	6020A
Antimony		2.5		0.45	mg/Kg	6020A
Nickel		46		0.23	mg/Kg	6020A
Zinc		1400	B	1.1	mg/Kg	6020A
Copper		160		0.45	mg/Kg	6020A
Mercury		0.36		0.070	mg/Kg	7471A
Percent Moisture		77		0.10	%	2540G
Total Organic Carbon - Duplicates		62000		4400	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		6.4		0.55	mg/Kg	6010B
Cadmium SEM		0.057		0.0049	umol/g	6010B
Copper SEM		120	B	2.8	mg/Kg	6010B
Copper SEM		1.8	B	0.043	umol/g	6010B
Lead SEM		160		1.1	mg/Kg	6010B
Lead SEM		0.79		0.0053	umol/g	6010B
Nickel SEM		29		4.4	mg/Kg	6010B
Nickel SEM		0.49		0.075	umol/g	6010B
Zinc SEM		1200	B	11	mg/Kg	6010B
Zinc SEM		18	B	0.17	umol/g	6010B
SEM/AVS Ratio		0.53		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		1300		66	mg/Kg	9034
Acid Volatile Sulfides (AVS)-SEM/AVS		41		2.1	umol/g	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-4</b>	<b>SD-B01</b>					
Toluene		1.7	J B	7.1	ug/Kg	8260C
Fluoranthene		7.7	J	19	ug/Kg	8270D LL
Naphthalene		4.1	J	19	ug/Kg	8270D LL
Pyrene		7.9	J	19	ug/Kg	8270D LL
PCB-1254		2.9	J	5.9	ug/Kg	8082A
PCB-1260		1.9	J	5.9	ug/Kg	8082A
Arsenic		1.7		0.074	mg/Kg	6020A
Cadmium		0.78		0.074	mg/Kg	6020A
Chromium		33	B	0.15	mg/Kg	6020A
Lead		9.7	B	0.074	mg/Kg	6020A
Selenium		0.12	J	0.37	mg/Kg	6020A
Silver		0.026	J	0.074	mg/Kg	6020A
Beryllium		0.053	J	0.074	mg/Kg	6020A
Thallium		0.033	J	0.074	mg/Kg	6020A
Antimony		0.12	J	0.15	mg/Kg	6020A
Nickel		2.2		0.074	mg/Kg	6020A
Zinc		99	B	0.37	mg/Kg	6020A
Copper		5.5		0.15	mg/Kg	6020A
Mercury		0.0096	J	0.022	mg/Kg	7471A
Percent Moisture		29		0.10	%	2540G
HEM		260	B	240	mg/Kg	9071B
Total Organic Carbon - Duplicates		2400		1400	mg/Kg	Lloyd Kahn
Moisture Content		36.6			%	D2216-90
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		0.0			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		92.5			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		0.2			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		3.0			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		89.3			%	D422
Sieve Size 0.375 inch - Percent Finer		100.0			% Passing	D422
Silt		5.4			%	D422
Sieve Size #4 - Percent Finer		100.0			% Passing	D422
Clay		2.1			%	D422
Sieve Size #10 - Percent Finer		99.8			% Passing	D422
Sieve Size #20 - Percent Finer		99.6			% Passing	D422
Sieve Size #40 - Percent Finer		96.8			% Passing	D422
Sieve Size #60 - Percent Finer		75.6			% Passing	D422
Sieve Size #80 - Percent Finer		52.5			% Passing	D422
Sieve Size #100 - Percent Finer		33.9			% Passing	D422
Sieve Size #200 - Percent Finer		7.5			% Passing	D422
Hydrometer Reading 1 - Percent Finer		3.8			% Passing	D422
Hydrometer Reading 2 - Percent Finer		3.0			% Passing	D422

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Hydrometer Reading 3 - Percent Finer		3.0			% Passing	D422
Hydrometer Reading 4 - Percent Finer		2.1			% Passing	D422
Hydrometer Reading 5 - Percent Finer		2.1			% Passing	D422
Hydrometer Reading 6 - Percent Finer		1.2			% Passing	D422
Hydrometer Reading 7 - Percent Finer		0.4			% Passing	D422
<b>SEM/AVS</b>						
Cadmium SEM		0.81		0.18	mg/Kg	6010B
Cadmium SEM		0.0072		0.0016	umol/g	6010B
Copper SEM		4.8	B	0.88	mg/Kg	6010B
Copper SEM		0.075	B	0.014	umol/g	6010B
Lead SEM		7.8		0.35	mg/Kg	6010B
Lead SEM		0.037		0.0017	umol/g	6010B
Nickel SEM		1.7		1.4	mg/Kg	6010B
Nickel SEM		0.029		0.024	umol/g	6010B
Zinc SEM		100	B	3.5	mg/Kg	6010B
Zinc SEM		1.6	B	0.054	umol/g	6010B
SEM/AVS Ratio		NC		0.0010	NONE	SEM

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-5</b>	<b>SD-B02</b>					
Toluene		5.1	J B	21	ug/Kg	8260C
Acenaphthylene		89	J	350	ug/Kg	8270D LL
Anthracene		110	J	350	ug/Kg	8270D LL
Benzo[a]anthracene		280	J	350	ug/Kg	8270D LL
Bis(2-ethylhexyl) phthalate		910	J	3500	ug/Kg	8270D LL
Chrysene		250	J	350	ug/Kg	8270D LL
Fluoranthene		490		350	ug/Kg	8270D LL
Naphthalene		380		350	ug/Kg	8270D LL
Phenanthrene		220	J	350	ug/Kg	8270D LL
Pyrene		490		350	ug/Kg	8270D LL
PCB-1248		78		17	ug/Kg	8082A
PCB-1260		49		17	ug/Kg	8082A
Arsenic		27		0.20	mg/Kg	6020A
Cadmium		9.2		0.20	mg/Kg	6020A
Chromium		790	B	0.39	mg/Kg	6020A
Lead		260	B	0.20	mg/Kg	6020A
Selenium		3.1		0.98	mg/Kg	6020A
Silver		1.7		0.20	mg/Kg	6020A
Beryllium		1.0		0.20	mg/Kg	6020A
Thallium		0.58		0.20	mg/Kg	6020A
Antimony		2.7		0.39	mg/Kg	6020A
Nickel		46		0.20	mg/Kg	6020A
Zinc		1600	B	0.98	mg/Kg	6020A
Copper		160		0.39	mg/Kg	6020A
Mercury		0.46		0.068	mg/Kg	7471A
Percent Moisture		76		0.10	%	2540G
HEM		12000	B	690	mg/Kg	9071B
Total Organic Carbon - Duplicates		63000		4200	mg/Kg	Lloyd Kahn
Moisture Content		228.7			%	D2216-90
Sieve Size 3 inch - Percent Finer		100.0			% Passing	D422
Gravel		0.0			%	D422
Sieve Size 2 inch - Percent Finer		100.0			% Passing	D422
Sand		22.6			%	D422
Sieve Size 1.5 inch - Percent Finer		100.0			% Passing	D422
Coarse Sand		1.1			%	D422
Sieve Size 1 inch - Percent Finer		100.0			% Passing	D422
Medium Sand		2.9			%	D422
Sieve Size 0.75 inch - Percent Finer		100.0			% Passing	D422
Fine Sand		18.6			%	D422
Sieve Size 0.375 inch - Percent Finer		100.0			% Passing	D422
Silt		73.9			%	D422
Sieve Size #4 - Percent Finer		100.0			% Passing	D422
Clay		3.5			%	D422
Sieve Size #10 - Percent Finer		98.9			% Passing	D422
Sieve Size #20 - Percent Finer		98.0			% Passing	D422
Sieve Size #40 - Percent Finer		96.0			% Passing	D422



## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Sieve Size #60 - Percent Finer		91.3			% Passing	D422
Sieve Size #80 - Percent Finer		86.6			% Passing	D422
Sieve Size #100 - Percent Finer		82.3			% Passing	D422
Sieve Size #200 - Percent Finer		77.4			% Passing	D422
Hydrometer Reading 1 - Percent Finer		75.9			% Passing	D422
Hydrometer Reading 2 - Percent Finer		19.4			% Passing	D422
Hydrometer Reading 3 - Percent Finer		7.1			% Passing	D422
Hydrometer Reading 4 - Percent Finer		5.3			% Passing	D422
Hydrometer Reading 5 - Percent Finer		3.5			% Passing	D422
Hydrometer Reading 6 - Percent Finer		1.5			% Passing	D422
Hydrometer Reading 7 - Percent Finer		1.5			% Passing	D422
<b>SEM/AVS</b>						
Cadmium SEM		8.2		0.52	mg/Kg	6010B
Cadmium SEM		0.073		0.0046	umol/g	6010B
Copper SEM		110	B	2.6	mg/Kg	6010B
Copper SEM		1.8	B	0.041	umol/g	6010B
Lead SEM		180		2.1	mg/Kg	6010B
Lead SEM		0.85		0.010	umol/g	6010B
Nickel SEM		29		8.3	mg/Kg	6010B
Nickel SEM		0.50		0.14	umol/g	6010B
Zinc SEM		1400	B	10	mg/Kg	6010B
Zinc SEM		21	B	0.16	umol/g	6010B
SEM/AVS Ratio		0.63		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		1200		62	mg/Kg	9034
Acid Volatile Sulfides (AVS)-SEM/AVS		39		1.9	umol/g	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-6</b>	<b>SD-B02-FD</b>					
Toluene		4.2	J B	18	ug/Kg	8260C
Benzo[a]anthracene		210	J	310	ug/Kg	8270D LL
Benzo[a]pyrene		380		310	ug/Kg	8270D LL
Chrysene		260	J	310	ug/Kg	8270D LL
Fluoranthene		430		310	ug/Kg	8270D LL
Naphthalene		330		310	ug/Kg	8270D LL
Pyrene		440		310	ug/Kg	8270D LL
PCB-1248		130		15	ug/Kg	8082A
PCB-1260		84		15	ug/Kg	8082A
Arsenic		24		0.17	mg/Kg	6020A
Cadmium		8.3		0.17	mg/Kg	6020A
Chromium		710	B	0.34	mg/Kg	6020A
Lead		230	B	0.17	mg/Kg	6020A
Selenium		2.6		0.84	mg/Kg	6020A
Silver		1.5		0.17	mg/Kg	6020A
Beryllium		0.94		0.17	mg/Kg	6020A
Thallium		0.52		0.17	mg/Kg	6020A
Antimony		2.5		0.34	mg/Kg	6020A
Nickel		41		0.17	mg/Kg	6020A
Zinc		1500	B	0.84	mg/Kg	6020A
Copper		140		0.34	mg/Kg	6020A
Mercury		0.36		0.060	mg/Kg	7471A
Percent Moisture		73		0.10	%	2540G
HEM		12000	B	610	mg/Kg	9071B
Total Organic Carbon - Duplicates		55000		3700	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		7.1		0.46	mg/Kg	6010B
Cadmium SEM		0.063		0.0041	umol/g	6010B
Copper SEM		96	B	2.3	mg/Kg	6010B
Copper SEM		1.5	B	0.036	umol/g	6010B
Lead SEM		150		1.8	mg/Kg	6010B
Lead SEM		0.73		0.0089	umol/g	6010B
Nickel SEM		28		7.4	mg/Kg	6010B
Nickel SEM		0.47		0.13	umol/g	6010B
Zinc SEM		1200	B	9.2	mg/Kg	6010B
Zinc SEM		19	B	0.14	umol/g	6010B
SEM/AVS Ratio		0.67		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		1000		55	mg/Kg	9034
Acid Volatile Sulfides (AVS)-SEM/AVS		32		1.7	umol/g	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-7</b>	<b>SD-C01</b>					
Toluene		1.9	J B	7.4	ug/Kg	8260C
Naphthalene		7.9	J	49	ug/Kg	8270D LL
PCB-1254		3.7	J	6.1	ug/Kg	8082A
PCB-1260		1.9	J	6.1	ug/Kg	8082A
Arsenic		1.6		0.065	mg/Kg	6020A
Cadmium		0.73		0.065	mg/Kg	6020A
Chromium		32	B	0.13	mg/Kg	6020A
Lead		11	B	0.065	mg/Kg	6020A
Selenium		0.12	J	0.32	mg/Kg	6020A
Silver		0.030	J	0.065	mg/Kg	6020A
Beryllium		0.056	J	0.065	mg/Kg	6020A
Thallium		0.034	J	0.065	mg/Kg	6020A
Antimony		0.13		0.13	mg/Kg	6020A
Nickel		2.7		0.065	mg/Kg	6020A
Zinc		98	B	0.32	mg/Kg	6020A
Copper		5.6		0.13	mg/Kg	6020A
Mercury		0.0079	J	0.023	mg/Kg	7471A
Percent Moisture		32		0.10	%	2540G
HEM		310	B	240	mg/Kg	9071B
Total Organic Carbon - Duplicates		3100		1500	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		0.65		0.18	mg/Kg	6010B
Cadmium SEM		0.0058		0.0016	umol/g	6010B
Copper SEM		4.3	B	0.92	mg/Kg	6010B
Copper SEM		0.067	B	0.015	umol/g	6010B
Lead SEM		7.3		0.37	mg/Kg	6010B
Lead SEM		0.035		0.0018	umol/g	6010B
Nickel SEM		1.6		1.5	mg/Kg	6010B
Nickel SEM		0.027		0.025	umol/g	6010B
Zinc SEM		90	B	3.7	mg/Kg	6010B
Zinc SEM		1.4	B	0.056	umol/g	6010B
SEM/AVS Ratio		NC		0.0010	NONE	SEM

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-8</b>	<b>SD-C02</b>					
Toluene		2.2	J B	8.6	ug/Kg	8260C
Anthracene		28	J	140	ug/Kg	8270D LL
Fluoranthene		110	J	140	ug/Kg	8270D LL
Naphthalene		74	J	140	ug/Kg	8270D LL
Phenanthrene		54	J	140	ug/Kg	8270D LL
Pyrene		90	J	140	ug/Kg	8270D LL
PCB-1248		26		7.2	ug/Kg	8082A
PCB-1260		21		7.2	ug/Kg	8082A
Arsenic		7.1		0.083	mg/Kg	6020A
Cadmium		3.0		0.083	mg/Kg	6020A
Chromium		130	B	0.17	mg/Kg	6020A
Lead		51	B	0.083	mg/Kg	6020A
Selenium		0.77		0.42	mg/Kg	6020A
Silver		0.23		0.083	mg/Kg	6020A
Beryllium		0.24		0.083	mg/Kg	6020A
Thallium		0.11		0.083	mg/Kg	6020A
Antimony		0.41		0.17	mg/Kg	6020A
Nickel		8.6		0.083	mg/Kg	6020A
Zinc		380	B	0.42	mg/Kg	6020A
Copper		28		0.17	mg/Kg	6020A
Mercury		0.086		0.028	mg/Kg	7471A
Percent Moisture		42		0.10	%	2540G
Cyanide, Total		0.36	J	0.42	mg/Kg	9014
HEM		1600	B	280	mg/Kg	9071B
Total Organic Carbon - Duplicates		16000		1700	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		2.9		0.22	mg/Kg	6010B
Cadmium SEM		0.025		0.0019	umol/g	6010B
Copper SEM		23	B	1.1	mg/Kg	6010B
Copper SEM		0.37	B	0.017	umol/g	6010B
Lead SEM		38		0.43	mg/Kg	6010B
Lead SEM		0.18		0.0021	umol/g	6010B
Nickel SEM		7.4		1.7	mg/Kg	6010B
Nickel SEM		0.13		0.029	umol/g	6010B
Zinc SEM		360	B	4.3	mg/Kg	6010B
Zinc SEM		5.5	B	0.066	umol/g	6010B
SEM/AVS Ratio		0.57		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		350		26	mg/Kg	9034
Acid Volatile Sulfides (AVS)-SEM/AVS		11		0.81	umol/g	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>180-37750-9</b>	<b>SD-C03</b>					
Toluene		5.7	J B	21	ug/Kg	8260C
Acenaphthylene		120	J	360	ug/Kg	8270D LL
Anthracene		140	J	360	ug/Kg	8270D LL
Benzo[a]anthracene		270	J	360	ug/Kg	8270D LL
Benzo[b]fluoranthene		690		360	ug/Kg	8270D LL
Benzo[k]fluoranthene		280	J	360	ug/Kg	8270D LL
Benzo[g,h,i]perylene		670		360	ug/Kg	8270D LL
Benzo[a]pyrene		500		360	ug/Kg	8270D LL
Chrysene		360		360	ug/Kg	8270D LL
Fluoranthene		680		360	ug/Kg	8270D LL
Indeno[1,2,3-cd]pyrene		470		360	ug/Kg	8270D LL
Naphthalene		560		360	ug/Kg	8270D LL
Phenanthrene		200	J	360	ug/Kg	8270D LL
Pyrene		690		360	ug/Kg	8270D LL
PCB-1248		140		18	ug/Kg	8082A
PCB-1260		88		18	ug/Kg	8082A
Arsenic		28		0.21	mg/Kg	6020A
Cadmium		8.5		0.21	mg/Kg	6020A
Chromium		800	B	0.43	mg/Kg	6020A
Lead		250	B	0.21	mg/Kg	6020A
Selenium		3.1		1.1	mg/Kg	6020A
Silver		1.7		0.21	mg/Kg	6020A
Beryllium		1.0		0.21	mg/Kg	6020A
Thallium		0.54		0.21	mg/Kg	6020A
Antimony		2.6		0.43	mg/Kg	6020A
Nickel		46		0.21	mg/Kg	6020A
Zinc		1500	B	1.1	mg/Kg	6020A
Copper		170		0.43	mg/Kg	6020A
Mercury		0.42		0.068	mg/Kg	7471A
Percent Moisture		77		0.10	%	2540G
Cyanide, Total		1.5		1.0	mg/Kg	9014
HEM		18000	B	710	mg/Kg	9071B
Total Organic Carbon - Duplicates		63000		4300	mg/Kg	Lloyd Kahn
<b>SEM/AVS</b>						
Cadmium SEM		7.9		0.53	mg/Kg	6010B
Cadmium SEM		0.070		0.0047	umol/g	6010B
Copper SEM		55	B	2.7	mg/Kg	6010B
Copper SEM		0.86	B	0.042	umol/g	6010B
Lead SEM		170		2.1	mg/Kg	6010B
Lead SEM		0.84		0.010	umol/g	6010B
Nickel SEM		32		8.5	mg/Kg	6010B
Nickel SEM		0.55		0.15	umol/g	6010B
Zinc SEM		1300	B	11	mg/Kg	6010B
Zinc SEM		20	B	0.16	umol/g	6010B
SEM/AVS Ratio		1.0		0.0010	NONE	SEM
Acid Volatile Sulfides (AVS)-SEM/AVS		730		64	mg/Kg	9034

## EXECUTIVE SUMMARY - Detections

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Acid Volatile Sulfides (AVS)-SEM/AVS		23		2.0	umol/g	9034

## METHOD SUMMARY

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Sediment</b>			
Volatile Organic Compounds by GC/MS	TAL PIT	SW846 8260C	
Purge and Trap	TAL PIT		SW846 5030C
Semivolatile Organic Compounds by GC/MS - Low Level	TAL PIT	SW846 8270D LL	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Polychlorinated Biphenyls (PCBs) (GC)	TAL PIT	SW846 8082A	
Automated Soxhlet Extraction (Low Level)	TAL PIT		SW846 3541
Sulfuric Acid/Permanganate Cleanup	TAL PIT		SW846 3665A
Metals (ICP)	TAL PIT	SW846 6010B	
Preparation, Acid Volatile Sulfide (AVS) and Simultaneously Extracted Metals (SE)	TAL PIT		EPA AVSSEM
Metals (ICP/MS)	TAL PIT	SW846 6020A	
Preparation, Metals	TAL PIT		SW846 3050B
Mercury (CVAA)	TAL PIT	SW846 7471A	
Preparation, Mercury	TAL PIT		SW846 7471A
Metals, Simultaneously Extracted Metals (SEM)	TAL PIT	EPA SEM	
SM 2540G	TAL PIT	SM22 2540G	
Cyanide	TAL PIT	SW846 9014	
Cyanide, Distillation	TAL PIT		SW846 9010C
Sulfide, Acid soluble and Insoluble (Titrimetric)	TAL PIT	SW846 9034	
Preparation, Acid Volatile Sulfide (AVS) and Simultaneously Extracted Metals (SE)	TAL PIT		EPA AVSSEM
HEM and SGT-HEM	TAL PIT	SW846 9071B	
Preparation, HEM and SGT-HEM	TAL PIT		SW846 9071B
Organic Carbon, Total (TOC)	TAL PIT	EPA Lloyd Kahn	
Water (Moisture) Content	TAL BUR	ASTM D2216-90	
Grain Size	TAL BUR	ASTM D422	

### Lab References:

TAL BUR = TestAmerica Burlington

TAL PIT = TestAmerica Pittsburgh

### Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Method	Analyst	Analyst ID
SW846 8260C	Gordon, Kathy L	KLG
SW846 8270D LL	Piccolino, Vincent	VVP
SW846 8082A	Oravec, John	JMO
SW846 6010B	Good, Rob	RJG
SW846 6020A	Ferguson, Caitlin N	CNF
SW846 6020A	Reinheimer, Bill	WTR
SW846 7471A	McGrath, Lauren E	LEM
EPA SEM	Miller, Mary Beth	MM1
SM22 2540G	Baikadi, Ashwin	AB1
SW846 9014	Johnson, Paul	PGJ
SW846 9034	Bucklaw, Michael E	MEB
SW846 9071B	Klingman, Neil A	NAK
EPA Lloyd Kahn	DeRubeis, James D	JDD
ASTM D2216-90	Peterson, Mark A	MAP
ASTM D422	Lavigne, Scott M	SML



# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B01

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K04.D

Dilution: 1.0

Initial Weight/Volume: 5.0007 g

Analysis Date: 10/17/2014 2148

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.69	7.1
1,1,2,2-Tetrachloroethane		ND		1.0	7.1
1,1,2-Trichloroethane		ND		1.2	7.1
1,1-Dichloroethane		ND		0.81	7.1
1,1-Dichloroethene		ND		1.2	7.1
1,2-Dichlorobenzene		ND		1.1	7.1
1,2-Dichloroethane		ND	*	0.87	7.1
1,2-Dichloropropane		ND		0.77	7.1
1,3-Dichlorobenzene		ND		0.93	7.1
1,4-Dichlorobenzene		ND		0.90	7.1
2-Chloroethyl vinyl ether		ND		1.1	14
Acrolein		ND		10	140
Acrylonitrile		ND		15	140
Benzene		ND		0.96	7.1
Bromoform		ND		0.63	7.1
Bromomethane		ND		1.0	7.1
Carbon tetrachloride		ND	*	0.63	7.1
Chlorobenzene		ND		1.1	7.1
Chloroform		ND		0.83	7.1
Chloromethane		ND		1.2	7.1
Chlorodibromomethane		ND		1.0	7.1
cis-1,3-Dichloropropene		ND		0.96	7.1
Dichlorobromomethane		ND		0.79	7.1
Ethylbenzene		ND		0.91	7.1
Methylene Chloride		ND		0.95	7.1
Tetrachloroethene		ND		0.96	7.1
Toluene		1.7	J B	1.0	7.1
trans-1,2-Dichloroethene		ND		0.84	7.1
trans-1,3-Dichloropropene		ND		0.85	7.1
Trichloroethene		ND		0.93	7.1
Vinyl chloride		ND		0.66	7.1
Chloroethane		ND		2.2	7.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		52 - 124
4-Bromofluorobenzene (Surr)	93		63 - 120
Dibromofluoromethane (Surr)	90		68 - 121
Toluene-d8 (Surr)	92		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 76.0

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K14.D

Dilution: 1.0

Initial Weight/Volume: 5.0007 g

Analysis Date: 10/18/2014 0134

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		2.0	21
1,1,2,2-Tetrachloroethane		ND		3.0	21
1,1,2-Trichloroethane		ND		3.5	21
1,1-Dichloroethane		ND		2.4	21
1,1-Dichloroethene		ND		3.5	21
1,2-Dichlorobenzene		ND		3.3	21
1,2-Dichloroethane		ND	*	2.6	21
1,2-Dichloropropane		ND		2.3	21
1,3-Dichlorobenzene		ND		2.7	21
1,4-Dichlorobenzene		ND		2.7	21
2-Chloroethyl vinyl ether		ND		3.2	42
Acrolein		ND		29	420
Acrylonitrile		ND		43	420
Benzene		ND		2.8	21
Bromoform		ND		1.8	21
Bromomethane		ND		3.1	21
Carbon tetrachloride		ND	*	1.9	21
Chlorobenzene		ND		3.2	21
Chloroform		ND		2.4	21
Chloromethane		ND		3.5	21
Chlorodibromomethane		ND		3.0	21
cis-1,3-Dichloropropene		ND		2.8	21
Dichlorobromomethane		ND		2.3	21
Ethylbenzene		ND		2.7	21
Methylene Chloride		ND		2.8	21
Tetrachloroethene		ND		2.8	21
Toluene		5.1	J B	3.0	21
trans-1,2-Dichloroethene		ND		2.5	21
trans-1,3-Dichloropropene		ND		2.5	21
Trichloroethene		ND		2.7	21
Vinyl chloride		ND		2.0	21
Chloroethane		ND		6.4	21

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		52 - 124
4-Bromofluorobenzene (Surr)	88		63 - 120
Dibromofluoromethane (Surr)	90		68 - 121
Toluene-d8 (Surr)	109		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02-FD

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K15.D

Dilution: 1.0

Initial Weight/Volume: 5.0004 g

Analysis Date: 10/18/2014 0156

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		1.8	18
1,1,2,2-Tetrachloroethane		ND		2.6	18
1,1,2-Trichloroethane		ND		3.1	18
1,1-Dichloroethane		ND		2.1	18
1,1-Dichloroethene		ND		3.1	18
1,2-Dichlorobenzene		ND		2.9	18
1,2-Dichloroethane		ND	*	2.3	18
1,2-Dichloropropane		ND		2.0	18
1,3-Dichlorobenzene		ND		2.4	18
1,4-Dichlorobenzene		ND		2.3	18
2-Chloroethyl vinyl ether		ND		2.9	37
Acrolein		ND		26	370
Acrylonitrile		ND		38	370
Benzene		ND		2.5	18
Bromoform		ND		1.6	18
Bromomethane		ND		2.7	18
Carbon tetrachloride		ND	*	1.6	18
Chlorobenzene		ND		2.8	18
Chloroform		ND		2.2	18
Chloromethane		ND		3.1	18
Chlorodibromomethane		ND		2.6	18
cis-1,3-Dichloropropene		ND		2.5	18
Dichlorobromomethane		ND		2.1	18
Ethylbenzene		ND		2.4	18
Methylene Chloride		ND		2.5	18
Tetrachloroethene		ND		2.5	18
Toluene		4.2	J B	2.7	18
trans-1,2-Dichloroethene		ND		2.2	18
trans-1,3-Dichloropropene		ND		2.2	18
Trichloroethene		ND		2.4	18
Vinyl chloride		ND		1.7	18
Chloroethane		ND		5.7	18

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		52 - 124
4-Bromofluorobenzene (Surr)	88		63 - 120
Dibromofluoromethane (Surr)	93		68 - 121
Toluene-d8 (Surr)	112		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C01

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K16.D

Dilution: 1.0

Initial Weight/Volume: 5.0006 g

Analysis Date: 10/18/2014 0219

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.72	7.4
1,1,2,2-Tetrachloroethane		ND		1.1	7.4
1,1,2-Trichloroethane		ND		1.2	7.4
1,1-Dichloroethane		ND		0.85	7.4
1,1-Dichloroethene		ND		1.3	7.4
1,2-Dichlorobenzene		ND		1.2	7.4
1,2-Dichloroethane		ND	*	0.90	7.4
1,2-Dichloropropane		ND		0.80	7.4
1,3-Dichlorobenzene		ND		0.97	7.4
1,4-Dichlorobenzene		ND		0.94	7.4
2-Chloroethyl vinyl ether		ND		1.1	15
Acrolein		ND		10	150
Acrylonitrile		ND		15	150
Benzene		ND		1.0	7.4
Bromoform		ND		0.65	7.4
Bromomethane		ND		1.1	7.4
Carbon tetrachloride		ND	*	0.66	7.4
Chlorobenzene		ND		1.1	7.4
Chloroform		ND		0.86	7.4
Chloromethane		ND		1.3	7.4
Chlorodibromomethane		ND		1.0	7.4
cis-1,3-Dichloropropene		ND		1.0	7.4
Dichlorobromomethane		ND		0.83	7.4
Ethylbenzene		ND		0.95	7.4
Methylene Chloride		ND		0.99	7.4
Tetrachloroethene		ND		1.0	7.4
Toluene		1.9	J B	1.1	7.4
trans-1,2-Dichloroethene		ND		0.88	7.4
trans-1,3-Dichloropropene		ND		0.88	7.4
Trichloroethene		ND		0.97	7.4
Vinyl chloride		ND		0.69	7.4
Chloroethane		ND		2.3	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		52 - 124
4-Bromofluorobenzene (Surr)	94		63 - 120
Dibromofluoromethane (Surr)	91		68 - 121
Toluene-d8 (Surr)	106		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C02

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K17.D

Dilution: 1.0

Initial Weight/Volume: 5.0009 g

Analysis Date: 10/18/2014 0242

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.84	8.6
1,1,2,2-Tetrachloroethane		ND		1.2	8.6
1,1,2-Trichloroethane		ND		1.4	8.6
1,1-Dichloroethane		ND		0.99	8.6
1,1-Dichloroethene		ND		1.5	8.6
1,2-Dichlorobenzene		ND		1.4	8.6
1,2-Dichloroethane		ND	*	1.1	8.6
1,2-Dichloropropane		ND		0.94	8.6
1,3-Dichlorobenzene		ND		1.1	8.6
1,4-Dichlorobenzene		ND		1.1	8.6
2-Chloroethyl vinyl ether		ND		1.3	17
Acrolein		ND		12	170
Acrylonitrile		ND		18	170
Benzene		ND		1.2	8.6
Bromoform		ND		0.76	8.6
Bromomethane		ND		1.3	8.6
Carbon tetrachloride		ND	*	0.77	8.6
Chlorobenzene		ND		1.3	8.6
Chloroform		ND		1.0	8.6
Chloromethane		ND		1.5	8.6
Chlorodibromomethane		ND		1.2	8.6
cis-1,3-Dichloropropene		ND		1.2	8.6
Dichlorobromomethane		ND		0.97	8.6
Ethylbenzene		ND		1.1	8.6
Methylene Chloride		ND		1.2	8.6
Tetrachloroethene		ND		1.2	8.6
Toluene		2.2	J B	1.3	8.6
trans-1,2-Dichloroethene		ND		1.0	8.6
trans-1,3-Dichloropropene		ND		1.0	8.6
Trichloroethene		ND		1.1	8.6
Vinyl chloride		ND		0.81	8.6
Chloroethane		ND		2.7	8.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		52 - 124
4-Bromofluorobenzene (Surr)	93		63 - 120
Dibromofluoromethane (Surr)	90		68 - 121
Toluene-d8 (Surr)	108		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C03

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 180-121881

Instrument ID: CHHP3

Prep Method: 5030C

Prep Batch: 180-121882

Lab File ID: 31017K18.D

Dilution: 1.0

Initial Weight/Volume: 5.0015 g

Analysis Date: 10/18/2014 0304

Final Weight/Volume: 5 mL

Prep Date: 10/17/2014 1939

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		2.1	21
1,1,2,2-Tetrachloroethane		ND		3.1	21
1,1,2-Trichloroethane		ND		3.6	21
1,1-Dichloroethane		ND		2.5	21
1,1-Dichloroethene		ND		3.6	21
1,2-Dichlorobenzene		ND		3.4	21
1,2-Dichloroethane		ND	*	2.6	21
1,2-Dichloropropane		ND		2.3	21
1,3-Dichlorobenzene		ND		2.8	21
1,4-Dichlorobenzene		ND		2.7	21
2-Chloroethyl vinyl ether		ND		3.3	43
Acrolein		ND		30	430
Acrylonitrile		ND		44	430
Benzene		ND		2.9	21
Bromoform		ND		1.9	21
Bromomethane		ND		3.2	21
Carbon tetrachloride		ND	*	1.9	21
Chlorobenzene		ND		3.2	21
Chloroform		ND		2.5	21
Chloromethane		ND		3.6	21
Chlorodibromomethane		ND		3.0	21
cis-1,3-Dichloropropene		ND		2.9	21
Dichlorobromomethane		ND		2.4	21
Ethylbenzene		ND		2.8	21
Methylene Chloride		ND		2.9	21
Tetrachloroethene		ND		2.9	21
Toluene		5.7	J B	3.1	21
trans-1,2-Dichloroethene		ND		2.6	21
trans-1,3-Dichloropropene		ND		2.6	21
Trichloroethene		ND		2.8	21
Vinyl chloride		ND		2.0	21
Chloroethane		ND		6.6	21

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		52 - 124
4-Bromofluorobenzene (Surr)	88		63 - 120
Dibromofluoromethane (Surr)	92		68 - 121
Toluene-d8 (Surr)	110		72 - 127

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-A01

Lab Sample ID: 180-37750-1

Date Sampled: 10/13/2014 1145

Client Matrix: Sediment

% Moisture: 31.5

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-122953	Instrument ID:	CH731
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	V1028026.D
Dilution:	4.0			Initial Weight/Volume:	30.1 g
Analysis Date:	10/28/2014 2326			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		ND		1.9	20
Benzo[a]anthracene		ND		2.4	20
Benzo[b]fluoranthene		ND		3.1	20
Benzo[k]fluoranthene		ND		3.9	20
Benzo[g,h,i]perylene		ND		1.9	20
Benzo[a]pyrene		ND		1.9	20
Chrysene		ND		2.3	20
Dibenz(a,h)anthracene		ND		2.2	20
Fluoranthene		18	J	2.1	20
Fluorene		ND		2.6	20
Indeno[1,2,3-cd]pyrene		ND		2.0	20
Phenanthrene		ND		3.1	20
Pyrene		14	J	2.0	20
Acenaphthene		ND		1.9	20
Acenaphthylene		ND		2.2	20
Naphthalene		8.7	J	1.7	20
Bis(2-ethylhexyl) phthalate		27	J	16	190
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5 (Surr)		89		27 - 110	
2-Fluorobiphenyl		80		28 - 108	
Terphenyl-d14 (Surr)		75		21 - 130	

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-A02

Lab Sample ID: 180-37750-2

Date Sampled: 10/13/2014 1115

Client Matrix: Sediment

% Moisture: 65.7

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-122953	Instrument ID:	CH731
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	V1028027.D
Dilution:	5.0			Initial Weight/Volume:	30.0 g
Analysis Date:	10/28/2014 2354			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		73		4.8	49
Benzo[a]anthracene		160		6.1	49
Benzo[b]fluoranthene		310		7.6	49
Benzo[k]fluoranthene		110		9.8	49
Benzo[g,h,i]perylene		260		4.8	49
Benzo[a]pyrene		210		4.9	49
Chrysene		210		5.8	49
Dibenz(a,h)anthracene		61		5.4	49
Fluoranthene		410		5.2	49
Fluorene		29	J	6.4	49
Indeno[1,2,3-cd]pyrene		250		5.0	49
Phenanthrene		120		7.7	49
Pyrene		270		4.9	49
Acenaphthene		ND		4.7	49
Acenaphthylene		76		5.6	49
Naphthalene		200		4.2	49
Bis(2-ethylhexyl) phthalate		250	J	39	490
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5 (Surr)		71		27 - 110	
2-Fluorobiphenyl		69		28 - 108	
Terphenyl-d14 (Surr)		57		21 - 130	



## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-A03

Lab Sample ID: 180-37750-3

Date Sampled: 10/13/2014 1020

Client Matrix: Sediment

% Moisture: 77.3

Date Received: 10/15/2014 0930

### 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method: 8270D LL	Analysis Batch: 180-123272	Instrument ID: CH731
Prep Method: 3541	Prep Batch: 180-122598	Lab File ID: V1030024.D
Dilution: 20		Initial Weight/Volume: 30.0 g
Analysis Date: 10/30/2014 1912		Final Weight/Volume: 0.5 mL
Prep Date: 10/24/2014 0310		Injection Volume: 2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Anthracene		79	J	29	300
Benzo[a]anthracene		ND		37	300
Benzo[b]fluoranthene		ND		46	300
Benzo[k]fluoranthene		ND		60	300
Benzo[g,h,i]perylene		ND		29	300
Benzo[a]pyrene		ND		29	300
Chrysene		ND		35	300
Dibenz(a,h)anthracene		ND		33	300
Fluoranthene		390		31	300
Fluorene		ND		39	300
Indeno[1,2,3-cd]pyrene		ND		30	300
Phenanthrene		180	J	47	300
Pyrene		380		30	300
Acenaphthene		ND		28	300
Acenaphthylene		110	J	34	300
Naphthalene		310		25	300
Bis(2-ethylhexyl) phthalate		ND		240	2900

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Surr)	76		27 - 110
2-Fluorobiphenyl	65		28 - 108
Terphenyl-d14 (Surr)	55		21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B01

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123272	Instrument ID:	CH731
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	V1030025.D
Dilution:	4.0			Initial Weight/Volume:	30.2 g
Analysis Date:	10/30/2014 1940			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		1.8	19
Acenaphthylene		ND		2.1	19
Anthracene		ND		1.8	19
Benzidine		ND		390	1900
Benzo[a]anthracene		ND		2.4	19
Benzo[b]fluoranthene		ND		2.9	19
Benzo[k]fluoranthene		ND		3.8	19
Benzoic acid		ND	*	39	480
Benzo[g,h,i]perylene		ND		1.9	19
Benzo[a]pyrene		ND		1.9	19
Bis(2-chloroethoxy)methane		ND		6.2	93
Bis(2-chloroethyl)ether		ND		2.5	19
Bis(2-ethylhexyl) phthalate		ND		15	190
2,2'-oxybis[1-chloropropane]		ND		2.0	19
4-Bromophenyl phenyl ether		ND		8.2	93
4-Chlorophenyl phenyl ether		ND		10	93
2-Chloronaphthalene		ND		2.0	19
Butyl benzyl phthalate		ND		13	93
Chrysene		ND		2.2	19
Dibenz(a,h)anthracene		ND		2.1	19
Di-n-butyl phthalate		ND		12	93
Di-n-octyl phthalate		ND		9.9	93
Diethyl phthalate		ND		10	93
Dimethyl phthalate		ND		10	93
3,3'-Dichlorobenzidine		ND		9.9	93
2,4-Dinitrotoluene		ND		7.6	93
2,6-Dinitrotoluene		ND		9.7	93
2-Chlorophenol		ND		7.7	93
2,4-Dichlorophenol		ND		1.9	19
2,4-Dimethylphenol		ND		15	93
2,4-Dinitrophenol		ND		110	480
2-Nitrophenol		ND		10	93
2,4,6-Trichlorophenol		ND		14	93
1,2-Diphenylhydrazine(as Azobenzene)		ND		12	93
1,2,4-Trichlorobenzene		ND		5.2	93
4-Chloro-3-methylphenol		ND		8.6	93
4-Nitrophenol		ND		34	480
4,6-Dinitro-2-methylphenol		ND		38	480
Fluoranthene		7.7	J	2.0	19
Fluorene		ND		2.5	19
Hexachlorobenzene		ND		2.0	19
Hexachlorobutadiene		ND		2.1	19
Hexachlorocyclopentadiene		ND		10	93
Hexachloroethane		ND		6.7	93
Indeno[1,2,3-cd]pyrene		ND		1.9	19
Isophorone		ND		7.1	93

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B01**

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

Analysis Method: 8270D LL

Analysis Batch: 180-123272

Instrument ID: CH731

Prep Method: 3541

Prep Batch: 180-122598

Lab File ID: V1030025.D

Dilution: 4.0

Initial Weight/Volume: 30.2 g

Analysis Date: 10/30/2014 1940

Final Weight/Volume: 0.5 mL

Prep Date: 10/24/2014 0310

Injection Volume: 2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		4.1	J	1.6	19
Nitrobenzene		ND		7.8	190
N-Nitrosodi-n-propylamine		ND		2.2	19
N-Nitrosodimethylamine		ND		8.0	93
N-Nitrosodiphenylamine		ND		8.7	93
Phenanthrene		ND		3.0	19
Pyrene		7.9	J	1.9	19
Pentachlorophenol		ND		8.4	93
Phenol		ND		2.2	19

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	61		21 - 116
2-Fluorobiphenyl	71		28 - 108
2-Fluorophenol (Surr)	76		28 - 107
Nitrobenzene-d5 (Surr)	89		27 - 110
Phenol-d5 (Surr)	68		30 - 112
Terphenyl-d14 (Surr)	83		21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 76.0

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031026.D
Dilution:	25			Initial Weight/Volume:	30.1 g
Analysis Date:	10/31/2014 2130			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		33	350
Acenaphthylene		89	J	40	350
Anthracene		110	J	34	350
Benzidine		ND		7300	35000
Benzo[a]anthracene		280	J	43	350
Benzo[b]fluoranthene		ND		54	350
Benzo[k]fluoranthene		ND		70	350
Benzoic acid		ND	*	720	8800
Benzo[g,h,i]perylene		ND		34	350
Benzo[a]pyrene		ND		35	350
Bis(2-chloroethoxy)methane		ND		110	1700
Bis(2-chloroethyl)ether		ND		46	350
Bis(2-ethylhexyl) phthalate		910	J	280	3500
2,2'-oxybis[1-chloropropane]		ND		37	350
4-Bromophenyl phenyl ether		ND		150	1700
4-Chlorophenyl phenyl ether		ND		190	1700
2-Chloronaphthalene		ND		36	350
Butyl benzyl phthalate		ND		240	1700
Chrysene		250	J	41	350
Dibenz(a,h)anthracene		ND		38	350
Di-n-butyl phthalate		ND		220	1700
Di-n-octyl phthalate		ND		180	1700
Diethyl phthalate		ND		190	1700
Dimethyl phthalate		ND		190	1700
3,3'-Dichlorobenzidine		ND		180	1700
2,4-Dinitrotoluene		ND		140	1700
2,6-Dinitrotoluene		ND		180	1700
2-Chlorophenol		ND		140	1700
2,4-Dichlorophenol		ND		35	350
2,4-Dimethylphenol		ND		270	1700
2,4-Dinitrophenol		ND		2100	8800
2-Nitrophenol		ND		190	1700
2,4,6-Trichlorophenol		ND		260	1700
1,2-Diphenylhydrazine(as Azobenzene)		ND		220	1700
1,2,4-Trichlorobenzene		ND		96	1700
4-Chloro-3-methylphenol		ND		160	1700
4-Nitrophenol		ND		630	8800
4,6-Dinitro-2-methylphenol		ND		700	8800
Fluoranthene		490		37	350
Fluorene		ND		46	350
Hexachlorobenzene		ND		37	350
Hexachlorobutadiene		ND		39	350
Hexachlorocyclopentadiene		ND		190	1700
Hexachloroethane		ND		120	1700
Indeno[1,2,3-cd]pyrene		ND		36	350
Isophorone		ND		130	1700

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 76.0

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031026.D
Dilution:	25			Initial Weight/Volume:	30.1 g
Analysis Date:	10/31/2014 2130			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		380		30	350
Nitrobenzene		ND		140	3500
N-Nitrosodi-n-propylamine		ND		41	350
N-Nitrosodimethylamine		ND		150	1700
N-Nitrosodiphenylamine		ND		160	1700
Phenanthrene		220	J	55	350
Pyrene		490		35	350
Pentachlorophenol		ND		150	1700
Phenol		ND		41	350

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	0	X D	21 - 116
2-Fluorobiphenyl	0	X D	28 - 108
2-Fluorophenol (Surr)	0	X D	28 - 107
Nitrobenzene-d5 (Surr)	0	X D	27 - 110
Phenol-d5 (Surr)	0	X D	30 - 112
Terphenyl-d14 (Surr)	0	X D	21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02-FD

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031027.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/31/2014 2156			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		30	310
Acenaphthylene		ND		35	310
Anthracene		ND		30	310
Benzidine		ND		6400	31000
Benzo[a]anthracene		210	J	39	310
Benzo[b]fluoranthene		ND		48	310
Benzo[k]fluoranthene		ND		62	310
Benzoic acid		ND	*	640	7800
Benzo[g,h,i]perylene		ND		31	310
Benzo[a]pyrene		380		31	310
Bis(2-chloroethoxy)methane		ND		100	1500
Bis(2-chloroethyl)ether		ND		41	310
Bis(2-ethylhexyl) phthalate		ND		250	3100
2,2'-oxybis[1-chloropropane]		ND		33	310
4-Bromophenyl phenyl ether		ND		130	1500
4-Chlorophenyl phenyl ether		ND		170	1500
2-Chloronaphthalene		ND		32	310
Butyl benzyl phthalate		ND		210	1500
Chrysene		260	J	37	310
Dibenz(a,h)anthracene		ND		34	310
Di-n-butyl phthalate		ND		190	1500
Di-n-octyl phthalate		ND		160	1500
Diethyl phthalate		ND		170	1500
Dimethyl phthalate		ND		170	1500
3,3'-Dichlorobenzidine		ND		160	1500
2,4-Dinitrotoluene		ND		120	1500
2,6-Dinitrotoluene		ND		160	1500
2-Chlorophenol		ND		130	1500
2,4-Dichlorophenol		ND		31	310
2,4-Dimethylphenol		ND		240	1500
2,4-Dinitrophenol		ND		1800	7800
2-Nitrophenol		ND		170	1500
2,4,6-Trichlorophenol		ND		230	1500
1,2-Diphenylhydrazine(as Azobenzene)		ND		200	1500
1,2,4-Trichlorobenzene		ND		85	1500
4-Chloro-3-methylphenol		ND		140	1500
4-Nitrophenol		ND		560	7800
4,6-Dinitro-2-methylphenol		ND		620	7800
Fluoranthene		430		33	310
Fluorene		ND		41	310
Hexachlorobenzene		ND		33	310
Hexachlorobutadiene		ND		34	310
Hexachlorocyclopentadiene		ND		170	1500
Hexachloroethane		ND		110	1500
Indeno[1,2,3-cd]pyrene		ND		32	310
Isophorone		ND		120	1500

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02-FD**

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

Analysis Method: 8270D LL

Analysis Batch: 180-123453

Instrument ID: CH732

Prep Method: 3541

Prep Batch: 180-122598

Lab File ID: D1031027.D

Dilution: 25

Initial Weight/Volume: 30.0 g

Analysis Date: 10/31/2014 2156

Final Weight/Volume: 0.5 mL

Prep Date: 10/24/2014 0310

Injection Volume: 2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		330		26	310
Nitrobenzene		ND		130	3100
N-Nitrosodi-n-propylamine		ND		36	310
N-Nitrosodimethylamine		ND		130	1500
N-Nitrosodiphenylamine		ND		140	1500
Phenanthrene		ND		49	310
Pyrene		440		31	310
Pentachlorophenol		ND		140	1500
Phenol		ND		36	310

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	0	X D	21 - 116
2-Fluorobiphenyl	0	X D	28 - 108
2-Fluorophenol (Surr)	0	X D	28 - 107
Nitrobenzene-d5 (Surr)	0	X D	27 - 110
Phenol-d5 (Surr)	0	X D	30 - 112
Terphenyl-d14 (Surr)	0	X D	21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C01

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031028.D
Dilution:	10			Initial Weight/Volume:	30.2 g
Analysis Date:	10/31/2014 2222			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		4.7	49
Acenaphthylene		ND		5.6	49
Anthracene		ND		4.8	49
Benzidine		ND		1000	4900
Benzo[a]anthracene		ND		6.1	49
Benzo[b]fluoranthene		ND		7.7	49
Benzo[k]fluoranthene		ND		9.9	49
Benzoic acid		ND	*	100	1200
Benzo[g,h,i]perylene		ND		4.9	49
Benzo[a]pyrene		ND		4.9	49
Bis(2-chloroethoxy)methane		ND		16	240
Bis(2-chloroethyl)ether		ND		6.6	49
Bis(2-ethylhexyl) phthalate		ND		39	490
2,2'-oxybis[1-chloropropane]		ND		5.3	49
4-Bromophenyl phenyl ether		ND		21	240
4-Chlorophenyl phenyl ether		ND		27	240
2-Chloronaphthalene		ND		5.1	49
Butyl benzyl phthalate		ND		33	240
Chrysene		ND		5.8	49
Dibenz(a,h)anthracene		ND		5.4	49
Di-n-butyl phthalate		ND		31	240
Di-n-octyl phthalate		ND		26	240
Diethyl phthalate		ND		27	240
Dimethyl phthalate		ND		27	240
3,3'-Dichlorobenzidine		ND		26	240
2,4-Dinitrotoluene		ND		20	240
2,6-Dinitrotoluene		ND		25	240
2-Chlorophenol		ND		20	240
2,4-Dichlorophenol		ND		4.9	49
2,4-Dimethylphenol		ND		38	240
2,4-Dinitrophenol		ND		290	1200
2-Nitrophenol		ND		27	240
2,4,6-Trichlorophenol		ND		37	240
1,2-Diphenylhydrazine(as Azobenzene)		ND		31	240
1,2,4-Trichlorobenzene		ND		14	240
4-Chloro-3-methylphenol		ND		22	240
4-Nitrophenol		ND		89	1200
4,6-Dinitro-2-methylphenol		ND		98	1200
Fluoranthene		ND		5.2	49
Fluorene		ND		6.4	49
Hexachlorobenzene		ND		5.2	49
Hexachlorobutadiene		ND		5.5	49
Hexachlorocyclopentadiene		ND		26	240
Hexachloroethane		ND		18	240
Indeno[1,2,3-cd]pyrene		ND		5.0	49
Isophorone		ND		18	240



**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C01**

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

Analysis Method: 8270D LL

Analysis Batch: 180-123453

Instrument ID: CH732

Prep Method: 3541

Prep Batch: 180-122598

Lab File ID: D1031028.D

Dilution: 10

Initial Weight/Volume: 30.2 g

Analysis Date: 10/31/2014 2222

Final Weight/Volume: 0.5 mL

Prep Date: 10/24/2014 0310

Injection Volume: 2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		7.9	J	4.2	49
Nitrobenzene		ND		20	490
N-Nitrosodi-n-propylamine		ND		5.7	49
N-Nitrosodimethylamine		ND		21	240
N-Nitrosodiphenylamine		ND		23	240
Phenanthrene		ND		7.8	49
Pyrene		ND		4.9	49
Pentachlorophenol		ND		22	240
Phenol		ND		5.8	49

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	40		21 - 116
2-Fluorobiphenyl	64		28 - 108
2-Fluorophenol (Surr)	57		28 - 107
Nitrobenzene-d5 (Surr)	71		27 - 110
Phenol-d5 (Surr)	61		30 - 112
Terphenyl-d14 (Surr)	79		21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C02

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031029.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/31/2014 2248			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		14	140
Acenaphthylene		ND		16	140
Anthracene		28	J	14	140
Benzidine		ND		3000	14000
Benzo[a]anthracene		ND		18	140
Benzo[b]fluoranthene		ND		23	140
Benzo[k]fluoranthene		ND		29	140
Benzoic acid		ND	*	300	3700
Benzo[g,h,i]perylene		ND		14	140
Benzo[a]pyrene		ND		14	140
Bis(2-chloroethoxy)methane		ND		47	710
Bis(2-chloroethyl)ether		ND		19	140
Bis(2-ethylhexyl) phthalate		ND		120	1400
2,2'-oxybis[1-chloropropane]		ND		16	140
4-Bromophenyl phenyl ether		ND		63	710
4-Chlorophenyl phenyl ether		ND		80	710
2-Chloronaphthalene		ND		15	140
Butyl benzyl phthalate		ND		98	710
Chrysene		ND		17	140
Dibenz(a,h)anthracene		ND		16	140
Di-n-butyl phthalate		ND		90	710
Di-n-octyl phthalate		ND		76	710
Diethyl phthalate		ND		79	710
Dimethyl phthalate		ND		78	710
3,3'-Dichlorobenzidine		ND		76	710
2,4-Dinitrotoluene		ND		58	710
2,6-Dinitrotoluene		ND		74	710
2-Chlorophenol		ND		59	710
2,4-Dichlorophenol		ND		14	140
2,4-Dimethylphenol		ND		110	710
2,4-Dinitrophenol		ND		860	3700
2-Nitrophenol		ND		79	710
2,4,6-Trichlorophenol		ND		110	710
1,2-Diphenylhydrazine(as Azobenzene)		ND		92	710
1,2,4-Trichlorobenzene		ND		40	710
4-Chloro-3-methylphenol		ND		66	710
4-Nitrophenol		ND		260	3700
4,6-Dinitro-2-methylphenol		ND		290	3700
Fluoranthene		110	J	15	140
Fluorene		ND		19	140
Hexachlorobenzene		ND		15	140
Hexachlorobutadiene		ND		16	140
Hexachlorocyclopentadiene		ND		78	710
Hexachloroethane		ND		52	710
Indeno[1,2,3-cd]pyrene		ND		15	140
Isophorone		ND		54	710

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C02**

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031029.D
Dilution:	25			Initial Weight/Volume:	30.0 g
Analysis Date:	10/31/2014 2248			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		74	J	12	140
Nitrobenzene		ND		60	1400
N-Nitrosodi-n-propylamine		ND		17	140
N-Nitrosodimethylamine		ND		62	710
N-Nitrosodiphenylamine		ND		67	710
Phenanthrene		54	J	23	140
Pyrene		90	J	15	140
Pentachlorophenol		ND		64	710
Phenol		ND		17	140

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	0	X D	21 - 116
2-Fluorobiphenyl	0	X D	28 - 108
2-Fluorophenol (Surr)	0	X D	28 - 107
Nitrobenzene-d5 (Surr)	0	X D	27 - 110
Phenol-d5 (Surr)	0	X D	30 - 112
Terphenyl-d14 (Surr)	0	X D	21 - 130

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-C03

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

## 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031030.D
Dilution:	25			Initial Weight/Volume:	30.2 g
Analysis Date:	10/31/2014 2314			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		34	360
Acenaphthylene		120	J	41	360
Anthracene		140	J	35	360
Benzidine		ND		7400	36000
Benzo[a]anthracene		270	J	44	360
Benzo[b]fluoranthene		690		56	360
Benzo[k]fluoranthene		280	J	72	360
Benzoic acid		ND	*	740	9000
Benzo[g,h,i]perylene		670		35	360
Benzo[a]pyrene		500		35	360
Bis(2-chloroethoxy)methane		ND		120	1800
Bis(2-chloroethyl)ether		ND		48	360
Bis(2-ethylhexyl) phthalate		ND		290	3500
2,2'-oxybis[1-chloropropane]		ND		38	360
4-Bromophenyl phenyl ether		ND		150	1800
4-Chlorophenyl phenyl ether		ND		200	1800
2-Chloronaphthalene		ND		37	360
Butyl benzyl phthalate		ND		240	1800
Chrysene		360		42	360
Dibenz(a,h)anthracene		ND		39	360
Di-n-butyl phthalate		ND		220	1800
Di-n-octyl phthalate		ND		190	1800
Diethyl phthalate		ND		190	1800
Dimethyl phthalate		ND		190	1800
3,3'-Dichlorobenzidine		ND		190	1800
2,4-Dinitrotoluene		ND		140	1800
2,6-Dinitrotoluene		ND		180	1800
2-Chlorophenol		ND		150	1800
2,4-Dichlorophenol		ND		36	360
2,4-Dimethylphenol		ND		280	1800
2,4-Dinitrophenol		ND		2100	9000
2-Nitrophenol		ND		200	1800
2,4,6-Trichlorophenol		ND		270	1800
1,2-Diphenylhydrazine(as Azobenzene)		ND		230	1800
1,2,4-Trichlorobenzene		ND		98	1800
4-Chloro-3-methylphenol		ND		160	1800
4-Nitrophenol		ND		650	9000
4,6-Dinitro-2-methylphenol		ND		710	9000
Fluoranthene		680		38	360
Fluorene		ND		47	360
Hexachlorobenzene		ND		38	360
Hexachlorobutadiene		ND		40	360
Hexachlorocyclopentadiene		ND		190	1800
Hexachloroethane		ND		130	1800
Indeno[1,2,3-cd]pyrene		470		37	360
Isophorone		ND		130	1800

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C03**

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

**8270D LL Semivolatile Organic Compounds by GC/MS - Low Level**

Analysis Method:	8270D LL	Analysis Batch:	180-123453	Instrument ID:	CH732
Prep Method:	3541	Prep Batch:	180-122598	Lab File ID:	D1031030.D
Dilution:	25			Initial Weight/Volume:	30.2 g
Analysis Date:	10/31/2014 2314			Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		560		31	360
Nitrobenzene		ND		150	3500
N-Nitrosodi-n-propylamine		ND		42	360
N-Nitrosodimethylamine		ND		150	1800
N-Nitrosodiphenylamine		ND		160	1800
Phenanthrene		200	J	56	360
Pyrene		690		36	360
Pentachlorophenol		ND		160	1800
Phenol		ND		42	360

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	0	X D	21 - 116
2-Fluorobiphenyl	0	X D	28 - 108
2-Fluorophenol (Surr)	0	X D	28 - 107
Nitrobenzene-d5 (Surr)	0	X D	27 - 110
Phenol-d5 (Surr)	0	X D	30 - 112
Terphenyl-d14 (Surr)	0	X D	21 - 130

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B01**

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.0 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1130

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.88	5.9
PCB-1221		ND		1.1	5.9
PCB-1232		ND		1.0	5.9
PCB-1242		ND		0.96	5.9
PCB-1248		ND		0.56	5.9
PCB-1254		2.9	J	0.84	5.9
PCB-1260		1.9	J	0.84	5.9

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	98		20 - 150
Tetrachloro-m-xylene (Surr)	77		30 - 150

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02**

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 76.0

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.0 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1228

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.6	17
PCB-1221		ND		3.3	17
PCB-1232		ND		3.0	17
PCB-1242		ND		2.8	17
PCB-1248		78		1.6	17
PCB-1254		ND		2.5	17
PCB-1260		49		2.5	17

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	204	X	20 - 150
Tetrachloro-m-xylene (Surr)	80		30 - 150

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02-FD**

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.0 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1247

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.3	15
PCB-1221		ND		2.9	15
PCB-1232		ND		2.6	15
PCB-1242		ND		2.5	15
PCB-1248		130		1.5	15
PCB-1254		ND		2.2	15
PCB-1260		84		2.2	15

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	332	X	20 - 150
Tetrachloro-m-xylene (Surr)	79		30 - 150



**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-C01

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.1 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1306

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.91	6.1
PCB-1221		ND		1.2	6.1
PCB-1232		ND		1.0	6.1
PCB-1242		ND		1.0	6.1
PCB-1248		ND		0.58	6.1
PCB-1254		3.7	J	0.87	6.1
PCB-1260		1.9	J	0.87	6.1

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	115		20 - 150
Tetrachloro-m-xylene (Surr)	71		30 - 150

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C02**

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.1 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1325

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		1.1	7.2
PCB-1221		ND		1.4	7.2
PCB-1232		ND		1.2	7.2
PCB-1242		ND		1.2	7.2
PCB-1248		26		0.68	7.2
PCB-1254		ND		1.0	7.2
PCB-1260		21		1.0	7.2

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	207	X	20 - 150
Tetrachloro-m-xylene (Surr)	90		30 - 150

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C03**

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

**8082A Polychlorinated Biphenyls (PCBs) (GC)**

Analysis Method: 8082A

Analysis Batch: 180-123252

Instrument ID: CHGC16

Prep Method: 3541

Prep Batch: 180-122691

Initial Weight/Volume: 30.1 g

Dilution: 10

Final Weight/Volume: 1.0 mL

Analysis Date: 10/30/2014 1344

Injection Volume: 1 uL

Prep Date: 10/25/2014 0315

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		2.6	18
PCB-1221		ND		3.4	18
PCB-1232		ND		3.0	18
PCB-1242		ND		2.9	18
PCB-1248		140		1.7	18
PCB-1254		ND		2.5	18
PCB-1260		88		2.5	18

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	260	X	20 - 150
Tetrachloro-m-xylene (Surr)	69		30 - 150

## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-A01

Lab Sample ID: 180-37750-1

Client Matrix: Sediment

% Moisture: 31.5

Date Sampled: 10/13/2014 1145

Date Received: 10/15/2014 0930

### 6010B Metals (ICP)-SEM/AVS

Analysis Method: 6010B	Analysis Batch: 180-123073	Instrument ID: C
Prep Method: AVSSEM	Prep Batch: 180-121962	Lab File ID: C41028B.asc
Dilution: 1.0		Initial Weight/Volume: 10.04 g
Analysis Date: 10/28/2014 1827		Final Weight/Volume: 250 mL
Prep Date: 10/19/2014 1429		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		0.92		0.0060	0.18
Copper SEM		7.0	B	0.082	0.91
Lead SEM		10		0.072	0.36
Nickel SEM		1.9		0.042	1.5
Zinc SEM		130	B	0.27	3.6

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.0082		0.000053	0.0016
Copper SEM		0.11	B	0.0013	0.014
Lead SEM		0.049		0.00035	0.0018
Nickel SEM		0.033		0.00071	0.025
Zinc SEM		2.0	B	0.0041	0.056

### 6020A Metals (ICP/MS)

Analysis Method: 6020A	Analysis Batch: 180-123945	Instrument ID: M
Prep Method: 3050B	Prep Batch: 180-123380	Lab File ID: M41104A.xml
Dilution: 1.0		Initial Weight/Volume: 00002.01 g
Analysis Date: 11/04/2014 1710		Final Weight/Volume: 100 mL
Prep Date: 10/30/2014 1425		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.94		0.0051	0.073
Chromium		46	B	0.0044	0.15
Lead		13	B	0.0028	0.073
Selenium		0.17	J	0.036	0.36
Silver		0.047	J	0.0028	0.073
Beryllium		0.082		0.0054	0.073
Thallium		0.047	J	0.0015	0.073
Antimony		0.17		0.0019	0.15
Nickel		3.7		0.0082	0.073
Zinc		130	B	0.047	0.36
Copper		8.7		0.024	0.15

Analysis Method: 6020A	Analysis Batch: 180-124210	Instrument ID: X
Prep Method: 3050B	Prep Batch: 180-123380	Lab File ID: X41105A.xml
Dilution: 1.0		Initial Weight/Volume: 00002.01 g
Analysis Date: 11/05/2014 2122		Final Weight/Volume: 100 mL
Prep Date: 10/30/2014 1425		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.8		0.013	0.073

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-A01**

Lab Sample ID: 180-37750-1

Date Sampled: 10/13/2014 1145

Client Matrix: Sediment

% Moisture: 31.5

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method:	7471A	Analysis Batch:	180-123289	Instrument ID:	K
Prep Method:	7471A	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0			Initial Weight/Volume:	00001.20 g
Analysis Date:	10/29/2014 1406			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	J	0.0080	0.024

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method:	SEM	Analysis Batch:	180-123344	Instrument ID:	NOEQUIP
	N/A		N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	10/30/2014 1112			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		NC		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-A02

Lab Sample ID: 180-37750-2

Date Sampled: 10/13/2014 1115

Client Matrix: Sediment

% Moisture: 65.7

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	9.95 g
Analysis Date:	10/28/2014 1832			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		3.8		0.012	0.37
Copper SEM		40	B	0.16	1.8
Lead SEM		86		0.15	0.73
Nickel SEM		15		0.084	2.9
Zinc SEM		680	B	0.54	7.3

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.034		0.00011	0.0033
Copper SEM		0.62	B	0.0026	0.029
Lead SEM		0.41		0.00070	0.0035
Nickel SEM		0.26		0.0014	0.050
Zinc SEM		10	B	0.0083	0.11

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.07 g
Analysis Date:	11/04/2014 1714			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		5.4		0.0099	0.14
Chromium		400	B	0.0086	0.28
Lead		160	B	0.0054	0.14
Selenium		2.0		0.071	0.70
Silver		0.86		0.0055	0.14
Beryllium		0.72		0.011	0.14
Thallium		0.40		0.0028	0.14
Antimony		1.5		0.0037	0.28
Nickel		30		0.016	0.14
Zinc		980	B	0.091	0.70
Copper		98		0.046	0.28

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.07 g
Analysis Date:	11/05/2014 2127			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		17		0.025	0.14

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-A02

Lab Sample ID: 180-37750-2

Date Sampled: 10/13/2014 1115

Client Matrix: Sediment

% Moisture: 65.7

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method: 7471A

Analysis Batch: 180-123289

Instrument ID: K

Prep Method: 7471A

Prep Batch: 180-123183

Lab File ID: R41029B.CSV

Dilution: 1.0

Initial Weight/Volume: 00001.20 g

Analysis Date: 10/29/2014 1408

Final Weight/Volume: 100 mL

Prep Date: 10/29/2014 1052

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.26		0.016	0.048

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method: SEM

Analysis Batch: 180-123344

Instrument ID: NOEQUIP

N/A

N/A

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/30/2014 1112

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		0.51		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-A03**

Lab Sample ID: 180-37750-3

Date Sampled: 10/13/2014 1020

Client Matrix: Sediment

% Moisture: 77.3

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.01 g
Analysis Date:	10/28/2014 1837			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		6.4		0.018	0.55
Copper SEM		120	B	0.25	2.8
Lead SEM		160		0.22	1.1
Nickel SEM		29		0.13	4.4
Zinc SEM		1200	B	0.82	11

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.057		0.00016	0.0049
Copper SEM		1.8	B	0.0039	0.043
Lead SEM		0.79		0.0011	0.0053
Nickel SEM		0.49		0.0022	0.075
Zinc SEM		18	B	0.012	0.17

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00001.96 g
Analysis Date:	11/04/2014 1718			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		7.1		0.016	0.23
Chromium		760	B	0.014	0.45
Lead		240	B	0.0086	0.23
Selenium		2.8		0.11	1.1
Silver		1.6		0.0088	0.23
Beryllium		1.0		0.017	0.23
Thallium		0.55		0.0045	0.23
Antimony		2.5		0.0059	0.45
Nickel		46		0.025	0.23
Zinc		1400	B	0.15	1.1
Copper		160		0.074	0.45

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00001.96 g
Analysis Date:	11/05/2014 2132			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		26		0.041	0.23



**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-A03**

Lab Sample ID: 180-37750-3

Date Sampled: 10/13/2014 1020

Client Matrix: Sediment

% Moisture: 77.3

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method: 7471A

Analysis Batch: 180-123289

Instrument ID: K

Prep Method: 7471A

Prep Batch: 180-123183

Lab File ID: R41029B.CSV

Dilution: 1.0

Initial Weight/Volume: 00001.24 g

Analysis Date: 10/29/2014 1410

Final Weight/Volume: 100 mL

Prep Date: 10/29/2014 1052

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.36		0.023	0.070

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method: SEM

Analysis Batch: 180-123344

Instrument ID: NOEQUIP

N/A

N/A

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/30/2014 1112

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		0.53		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B01**

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.01 g
Analysis Date:	10/28/2014 1842			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		0.81		0.0058	0.18
Copper SEM		4.8	B	0.079	0.88
Lead SEM		7.8		0.070	0.35
Nickel SEM		1.7		0.041	1.4
Zinc SEM		100	B	0.26	3.5

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.0072		0.000052	0.0016
Copper SEM		0.075	B	0.0012	0.014
Lead SEM		0.037		0.00034	0.0017
Nickel SEM		0.029		0.00069	0.024
Zinc SEM		1.6	B	0.0040	0.054

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00001.92 g
Analysis Date:	11/04/2014 1721			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.78		0.0052	0.074
Chromium		33	B	0.0045	0.15
Lead		9.7	B	0.0028	0.074
Selenium		0.12	J	0.037	0.37
Silver		0.026	J	0.0029	0.074
Beryllium		0.053	J	0.0055	0.074
Thallium		0.033	J	0.0015	0.074
Antimony		0.12	J	0.0019	0.15
Nickel		2.2		0.0083	0.074
Zinc		99	B	0.048	0.37
Copper		5.5		0.024	0.15

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00001.92 g
Analysis Date:	11/05/2014 2207			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.7		0.013	0.074

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B01**

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

% Moisture: 29.3

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method: 7471A

Analysis Batch: 180-123289

Instrument ID: K

Prep Method: 7471A

Prep Batch: 180-123183

Lab File ID: R41029B.CSV

Dilution: 1.0

Initial Weight/Volume: 00001.25 g

Analysis Date: 10/29/2014 1411

Final Weight/Volume: 100 mL

Prep Date: 10/29/2014 1052

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0096	J	0.0074	0.022

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method: SEM

Analysis Batch: 180-123344

Instrument ID: NOEQUIP

N/A

N/A

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/30/2014 1112

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		NC		0.0010	0.0010

# Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Client Matrix: Sediment

% Moisture: 76.0

Date Sampled: 10/13/2014 1210

Date Received: 10/15/2014 0930

## 6010B Metals (ICP)-SEM/AVS

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	10/28/2014 1902			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		8.2		0.017	0.52
Copper SEM		110	B	0.23	2.6
Zinc SEM		1400	B	0.77	10

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.073		0.00015	0.0046
Copper SEM		1.8	B	0.0037	0.041
Zinc SEM		21	B	0.012	0.16

Analysis Method:	6010B	Analysis Batch:	180-123209	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41029A2.asc
Dilution:	2.0			Initial Weight/Volume:	10.00 g
Analysis Date:	10/29/2014 1309			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead SEM		180		0.41	2.1
Nickel SEM		29		0.24	8.3

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Lead SEM		0.85		0.0020	0.010
Nickel SEM		0.50		0.0041	0.14

## 6020A Metals (ICP/MS)

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.13 g
Analysis Date:	11/04/2014 1748			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		9.2		0.014	0.20
Chromium		790	B	0.012	0.39
Lead		260	B	0.0074	0.20
Selenium		3.1		0.098	0.98
Silver		1.7		0.0076	0.20
Beryllium		1.0		0.015	0.20
Thallium		0.58		0.0039	0.20
Antimony		2.7		0.0051	0.39
Nickel		46		0.022	0.20
Zinc		1600	B	0.13	0.98
Copper		160		0.065	0.39

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02**

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 76.0

Date Received: 10/15/2014 0930

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.13 g
Analysis Date:	11/05/2014 2137			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		27		0.035	0.20

**7471A Mercury (CVAA)**

Analysis Method:	7471A	Analysis Batch:	180-123289	Instrument ID:	K
Prep Method:	7471A	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0			Initial Weight/Volume:	00001.22 g
Analysis Date:	10/29/2014 1421			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.46		0.022	0.068

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method:	SEM	Analysis Batch:	180-123344	Instrument ID:	NOEQUIP
	N/A		N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	10/30/2014 1112			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		0.63		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-B02-FD

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	10/28/2014 1917			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		7.1		0.015	0.46
Copper SEM		96	B	0.21	2.3
Zinc SEM		1200	B	0.68	9.2

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.063		0.00013	0.0041
Copper SEM		1.5	B	0.0033	0.036
Zinc SEM		19	B	0.010	0.14

Analysis Method:	6010B	Analysis Batch:	180-123209	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41029A2.asc
Dilution:	2.0			Initial Weight/Volume:	10.00 g
Analysis Date:	10/29/2014 1314			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead SEM		150		0.36	1.8
Nickel SEM		28		0.21	7.4

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Lead SEM		0.73		0.0018	0.0089
Nickel SEM		0.47		0.0036	0.13

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.20 g
Analysis Date:	11/04/2014 1752			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		8.3		0.012	0.17
Chromium		710	B	0.010	0.34
Lead		230	B	0.0064	0.17
Selenium		2.6		0.084	0.84
Silver		1.5		0.0065	0.17
Beryllium		0.94		0.013	0.17
Thallium		0.52		0.0034	0.17
Antimony		2.5		0.0044	0.34
Nickel		41		0.019	0.17
Zinc		1500	B	0.11	0.84
Copper		140		0.055	0.34

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02-FD**

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

% Moisture: 72.9

Date Received: 10/15/2014 0930

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.20 g
Analysis Date:	11/05/2014 2157			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		24		0.030	0.17

**7471A Mercury (CVAA)**

Analysis Method:	7471A	Analysis Batch:	180-123289	Instrument ID:	K
Prep Method:	7471A	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0			Initial Weight/Volume:	00001.21 g
Analysis Date:	10/29/2014 1422			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.36		0.020	0.060

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method:	SEM	Analysis Batch:	180-123344	Instrument ID:	NOEQUIP
	N/A		N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	10/30/2014 1112			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		0.67		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C01**

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	9.98 g
Analysis Date:	10/28/2014 1922			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		0.65		0.0061	0.18
Copper SEM		4.3	B	0.083	0.92
Lead SEM		7.3		0.073	0.37
Nickel SEM		1.6		0.042	1.5
Zinc SEM		90	B	0.27	3.7

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.0058		0.000054	0.0016
Copper SEM		0.067	B	0.0013	0.015
Lead SEM		0.035		0.00035	0.0018
Nickel SEM		0.027		0.00072	0.025
Zinc SEM		1.4	B	0.0042	0.056

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.27 g
Analysis Date:	11/04/2014 1755			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.73		0.0045	0.065
Chromium		32	B	0.0040	0.13
Lead		11	B	0.0025	0.065
Selenium		0.12	J	0.033	0.32
Silver		0.030	J	0.0025	0.065
Beryllium		0.056	J	0.0049	0.065
Thallium		0.034	J	0.0013	0.065
Antimony		0.13		0.0017	0.13
Nickel		2.7		0.0073	0.065
Zinc		98	B	0.042	0.32
Copper		5.6		0.021	0.13

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.27 g
Analysis Date:	11/05/2014 2202			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.6		0.012	0.065



**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C01**

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

% Moisture: 32.2

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method: 7471A

Analysis Batch: 180-123289

Instrument ID: K

Prep Method: 7471A

Prep Batch: 180-123183

Lab File ID: R41029B.CSV

Dilution: 1.0

Initial Weight/Volume: 00001.28 g

Analysis Date: 10/29/2014 1424

Final Weight/Volume: 100 mL

Prep Date: 10/29/2014 1052

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0079	J	0.0075	0.023

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method: SEM

Analysis Batch: 180-123344

Instrument ID: NOEQUIP

N/A

N/A

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/30/2014 1112

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		NC		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C02**

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.02 g
Analysis Date:	10/28/2014 1927			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		2.9		0.0071	0.22
Copper SEM		23	B	0.097	1.1
Lead SEM		38		0.085	0.43
Nickel SEM		7.4		0.049	1.7
Zinc SEM		360	B	0.32	4.3

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.025		0.000063	0.0019
Copper SEM		0.37	B	0.0015	0.017
Lead SEM		0.18		0.00041	0.0021
Nickel SEM		0.13		0.00084	0.029
Zinc SEM		5.5	B	0.0049	0.066

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.07 g
Analysis Date:	11/04/2014 1759			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		3.0		0.0058	0.083
Chromium		130	B	0.0051	0.17
Lead		51	B	0.0032	0.083
Selenium		0.77		0.042	0.42
Silver		0.23		0.0033	0.083
Beryllium		0.24		0.0063	0.083
Thallium		0.11		0.0017	0.083
Antimony		0.41		0.0022	0.17
Nickel		8.6		0.0094	0.083
Zinc		380	B	0.054	0.42
Copper		28		0.028	0.17

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.07 g
Analysis Date:	11/05/2014 2232			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		7.1		0.015	0.083

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C02**

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

% Moisture: 42.1

Date Received: 10/15/2014 0930

**7471A Mercury (CVAA)**

Analysis Method: 7471A

Analysis Batch: 180-123289

Instrument ID: K

Prep Method: 7471A

Prep Batch: 180-123183

Lab File ID: R41029B.CSV

Dilution: 1.0

Initial Weight/Volume: 00001.23 g

Analysis Date: 10/29/2014 1426

Final Weight/Volume: 100 mL

Prep Date: 10/29/2014 1052

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.086		0.0092	0.028

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method: SEM

Analysis Batch: 180-123344

Instrument ID: NOEQUIP

N/A

N/A

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/30/2014 1112

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		0.57		0.0010	0.0010

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C03**

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

**6010B Metals (ICP)-SEM/AVS**

Analysis Method:	6010B	Analysis Batch:	180-123073	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0			Initial Weight/Volume:	10.05 g
Analysis Date:	10/28/2014 1932			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium SEM		7.9		0.017	0.53
Copper SEM		55	B	0.24	2.7
Zinc SEM		1300	B	0.79	11

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Cadmium SEM		0.070		0.00016	0.0047
Copper SEM		0.86	B	0.0038	0.042
Zinc SEM		20	B	0.012	0.16

Analysis Method:	6010B	Analysis Batch:	180-123209	Instrument ID:	C
Prep Method:	AVSSEM	Prep Batch:	180-121962	Lab File ID:	C41029A2.asc
Dilution:	2.0			Initial Weight/Volume:	10.05 g
Analysis Date:	10/29/2014 1319			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead SEM		170		0.42	2.1
Nickel SEM		32		0.24	8.5

Analyte	DryWt Corrected: Y	Result (umol/g)	Qualifier	MDL	RL
Lead SEM		0.84		0.0020	0.010
Nickel SEM		0.55		0.0042	0.15

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-123945	Instrument ID:	M
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.01 g
Analysis Date:	11/04/2014 1802			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		8.5		0.015	0.21
Chromium		800	B	0.013	0.43
Lead		250	B	0.0081	0.21
Selenium		3.1		0.11	1.1
Silver		1.7		0.0083	0.21
Beryllium		1.0		0.016	0.21
Thallium		0.54		0.0043	0.21
Antimony		2.6		0.0055	0.43
Nickel		46		0.024	0.21
Zinc		1500	B	0.14	1.1
Copper		170		0.070	0.43

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-C03**

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

% Moisture: 76.6

Date Received: 10/15/2014 0930

**6020A Metals (ICP/MS)**

Analysis Method:	6020A	Analysis Batch:	180-124210	Instrument ID:	X
Prep Method:	3050B	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0			Initial Weight/Volume:	00002.01 g
Analysis Date:	11/05/2014 2237			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		28		0.039	0.21

**7471A Mercury (CVAA)**

Analysis Method:	7471A	Analysis Batch:	180-123289	Instrument ID:	K
Prep Method:	7471A	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0			Initial Weight/Volume:	00001.24 g
Analysis Date:	10/29/2014 1428			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.42		0.023	0.068

**SEM Metals, Simultaneously Extracted Metals (SEM)-SEM/AVS**

Analysis Method:	SEM	Analysis Batch:	180-123344	Instrument ID:	NOEQUIP
	N/A		N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	10/30/2014 1114			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (NONE)	Qualifier	MDL	RL
SEM/AVS Ratio		1.0		0.0010	0.0010

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-A01

Lab Sample ID: 180-37750-1

Date Sampled: 10/13/2014 1145

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	32		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	0.12	J	mg/Kg	0.12	0.36	1.0	9014
	Analysis Batch: 180-122911	Analysis Date: 10/27/2014 1529					DryWt Corrected: Y
	Prep Batch: 180-122877	Prep Date: 10/27/2014 1240					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		mg/Kg	4.4	22	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		umol/g	0.14	0.68	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Total Organic Carbon - Duplicates	2700		mg/Kg	130	1500	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1417					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-A02

Lab Sample ID: 180-37750-2

Date Sampled: 10/13/2014 1115

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	66		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.24	0.73	1.0	9014
	Analysis Batch: 180-122641	Analysis Date: 10/24/2014 1123					DryWt Corrected: Y
	Prep Batch: 180-122578	Prep Date: 10/24/2014 0730					
Acid Volatile Sulfides (AVS) -SEM/AVS	750		mg/Kg	8.8	44	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	23		umol/g	0.27	1.4	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Total Organic Carbon - Duplicates	42000		mg/Kg	260	2900	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1432					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

General Chemistry

Client Sample ID: SD-A03

Lab Sample ID: 180-37750-3

Date Sampled: 10/13/2014 1020

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	77		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.36	1.1	1.0	9014
	Analysis Batch: 180-122641	Analysis Date: 10/24/2014 1125					DryWt Corrected: Y
	Prep Batch: 180-122578	Prep Date: 10/24/2014 0730					
Acid Volatile Sulfides (AVS) -SEM/AVS	1300		mg/Kg	13	66	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	41		umol/g	0.41	2.1	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Total Organic Carbon - Duplicates	62000		mg/Kg	390	4400	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1448					DryWt Corrected: Y



Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-B01

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	29		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.12	0.35	1.0	9014
	Analysis Batch: 180-122911	Analysis Date: 10/27/2014 1531					DryWt Corrected: Y
	Prep Batch: 180-122877	Prep Date: 10/27/2014 1240					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		mg/Kg	4.2	21	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		umol/g	0.13	0.66	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	260	B	mg/Kg	33	240	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	2400		mg/Kg	130	1400	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1633					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	76		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.33	1.0	1.0	9014
	Analysis Batch: 180-122641	Analysis Date: 10/24/2014 1126					DryWt Corrected: Y
	Prep Batch: 180-122578	Prep Date: 10/24/2014 0730					
Acid Volatile Sulfides (AVS) -SEM/AVS	1200		mg/Kg	12	62	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	39		umol/g	0.39	1.9	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	12000	B	mg/Kg	96	690	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	63000		mg/Kg	370	4200	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1504					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-B02-FD

Lab Sample ID: 180-37750-6

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	73		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.31	0.95	1.0	9014
	Analysis Batch: 180-122641	Analysis Date: 10/24/2014 1128					DryWt Corrected: Y
	Prep Batch: 180-122578	Prep Date: 10/24/2014 0730					
Acid Volatile Sulfides (AVS) -SEM/AVS	1000		mg/Kg	11	55	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	32		umol/g	0.34	1.7	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	12000	B	mg/Kg	85	610	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	55000		mg/Kg	330	3700	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1520					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-C01

Lab Sample ID: 180-37750-7

Date Sampled: 10/13/2014 1530

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	32		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	ND		mg/Kg	0.12	0.37	1.0	9014
	Analysis Batch: 180-122641	Analysis Date: 10/24/2014 1130					DryWt Corrected: Y
	Prep Batch: 180-122578	Prep Date: 10/24/2014 0730					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		mg/Kg	4.4	22	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	ND		umol/g	0.14	0.69	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	310	B	mg/Kg	34	240	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	3100		mg/Kg	130	1500	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1536					DryWt Corrected: Y

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## General Chemistry

Client Sample ID: SD-C02

Lab Sample ID: 180-37750-8

Date Sampled: 10/13/2014 1450

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	42		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	0.36	J	mg/Kg	0.14	0.42	1.0	9014
	Analysis Batch: 180-122911	Analysis Date: 10/27/2014 1538					DryWt Corrected: Y
	Prep Batch: 180-122877	Prep Date: 10/27/2014 1240					
Acid Volatile Sulfides (AVS) -SEM/AVS	350		mg/Kg	5.2	26	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	11		umol/g	0.16	0.81	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	1600	B	mg/Kg	39	280	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	16000		mg/Kg	150	1700	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1602					DryWt Corrected: Y

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

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**General Chemistry****Client Sample ID: SD-C03**

Lab Sample ID: 180-37750-9

Date Sampled: 10/13/2014 1430

Client Matrix: Sediment

Date Received: 10/15/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	77		%	0.10	0.10	1.0	2540G
	Analysis Batch: 180-121749	Analysis Date: 10/16/2014 1701					DryWt Corrected: N
Cyanide, Total	1.5		mg/Kg	0.34	1.0	1.0	9014
	Analysis Batch: 180-122911	Analysis Date: 10/27/2014 1544					DryWt Corrected: Y
	Prep Batch: 180-122877	Prep Date: 10/27/2014 1240					
Acid Volatile Sulfides (AVS) -SEM/AVS	730		mg/Kg	13	64	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
Acid Volatile Sulfides (AVS) -SEM/AVS	23		umol/g	0.40	2.0	1.0	9034
	Analysis Batch: 180-122072	Analysis Date: 10/20/2014 1411					DryWt Corrected: Y
	Prep Batch: 180-121963	Prep Date: 10/19/2014 1432					
HEM	18000	B	mg/Kg	99	710	1.0	9071B
	Analysis Batch: 180-122993	Analysis Date: 10/27/2014 0623					DryWt Corrected: Y
	Prep Batch: 180-122780	Prep Date: 10/27/2014 0623					
Total Organic Carbon - Duplicates	63000		mg/Kg	380	4300	1.0	Lloyd Kahn
	Analysis Batch: 180-122589	Analysis Date: 10/23/2014 1618					DryWt Corrected: Y

## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-B01

Lab Sample ID: 180-37750-4

Client Matrix: Sediment

Date Sampled: 10/13/2014 1250

Date Received: 10/15/2014 0930

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### D2216-90 Water (Moisture) Content

Analysis Method: D2216-90

N/A

Analysis Batch: 200-79574

Prep Batch: N/A

Instrument ID: NOEQUIP

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/29/2014 2222

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Moisture Content		36.6			

---

## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-B02

Lab Sample ID: 180-37750-5

Client Matrix: Sediment

Date Sampled: 10/13/2014 1210

Date Received: 10/15/2014 0930

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### D2216-90 Water (Moisture) Content

Analysis Method: D2216-90

N/A

Analysis Batch: 200-79574

Prep Batch: N/A

Instrument ID: NOEQUIP

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume:

Analysis Date: 10/29/2014 2222

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Moisture Content		228.7			

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**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B01**

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

Date Received: 10/15/2014 0930

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**D422 Grain Size**

Analysis Method: D422

Analysis Batch: 200-79737

Instrument ID: D422\_import

N/A

Prep Batch: N/A

Lab File ID: 180-37750-A-4.txt

Dilution: 1.0

Initial Weight/Volume: 257.63 g

Analysis Date: 10/29/2014 2232

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.8			
Sieve Size #20 - Percent Finer		99.6			
Sieve Size #40 - Percent Finer		96.8			
Sieve Size #60 - Percent Finer		75.6			
Sieve Size #80 - Percent Finer		52.5			
Sieve Size #100 - Percent Finer		33.9			
Sieve Size #200 - Percent Finer		7.5			
Hydrometer Reading 1 - Percent Finer		3.8			
Hydrometer Reading 2 - Percent Finer		3.0			
Hydrometer Reading 3 - Percent Finer		3.0			
Hydrometer Reading 4 - Percent Finer		2.1			
Hydrometer Reading 5 - Percent Finer		2.1			
Hydrometer Reading 6 - Percent Finer		1.2			
Hydrometer Reading 7 - Percent Finer		0.4			

## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-B01

Lab Sample ID: 180-37750-4

Date Sampled: 10/13/2014 1250

Client Matrix: Sediment

Date Received: 10/15/2014 0930

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### D422 Grain Size

Analysis Method: D422

Analysis Batch: 200-79737

Instrument ID: D422\_import

N/A

Prep Batch: N/A

Lab File ID: 180-37750-A-4.txt

Dilution: 1.0

Initial Weight/Volume: 257.63 g

Analysis Date: 10/29/2014 2232

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		92.5			
Coarse Sand		0.2			
Medium Sand		3.0			
Fine Sand		89.3			
Silt		5.4			
Clay		2.1			

**Analytical Data**

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID: SD-B02**

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

Date Received: 10/15/2014 0930

**D422 Grain Size**

Analysis Method:	D422	Analysis Batch:	200-79737	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	180-37750-A-5.txt
Dilution:	1.0			Initial Weight/Volume:	149.5 g
Analysis Date:	10/29/2014 2234			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.9			
Sieve Size #20 - Percent Finer		98.0			
Sieve Size #40 - Percent Finer		96.0			
Sieve Size #60 - Percent Finer		91.3			
Sieve Size #80 - Percent Finer		86.6			
Sieve Size #100 - Percent Finer		82.3			
Sieve Size #200 - Percent Finer		77.4			
Hydrometer Reading 1 - Percent Finer		75.9			
Hydrometer Reading 2 - Percent Finer		19.4			
Hydrometer Reading 3 - Percent Finer		7.1			
Hydrometer Reading 4 - Percent Finer		5.3			
Hydrometer Reading 5 - Percent Finer		3.5			
Hydrometer Reading 6 - Percent Finer		1.5			
Hydrometer Reading 7 - Percent Finer		1.5			

## Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Client Sample ID:** SD-B02

Lab Sample ID: 180-37750-5

Date Sampled: 10/13/2014 1210

Client Matrix: Sediment

Date Received: 10/15/2014 0930

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### D422 Grain Size

Analysis Method: D422

Analysis Batch: 200-79737

Instrument ID: D422\_import

N/A

Prep Batch: N/A

Lab File ID: 180-37750-A-5.txt

Dilution: 1.0

Initial Weight/Volume: 149.5 g

Analysis Date: 10/29/2014 2234

Final Weight/Volume:

Prep Date: N/A

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		22.6			
Coarse Sand		1.1			
Medium Sand		2.9			
Fine Sand		18.6			
Silt		73.9			
Clay		3.5			

# Particle Size of Soils by ASTM D422

Sample ID: SD-B01  
Lab ID: 180-37750-A-4

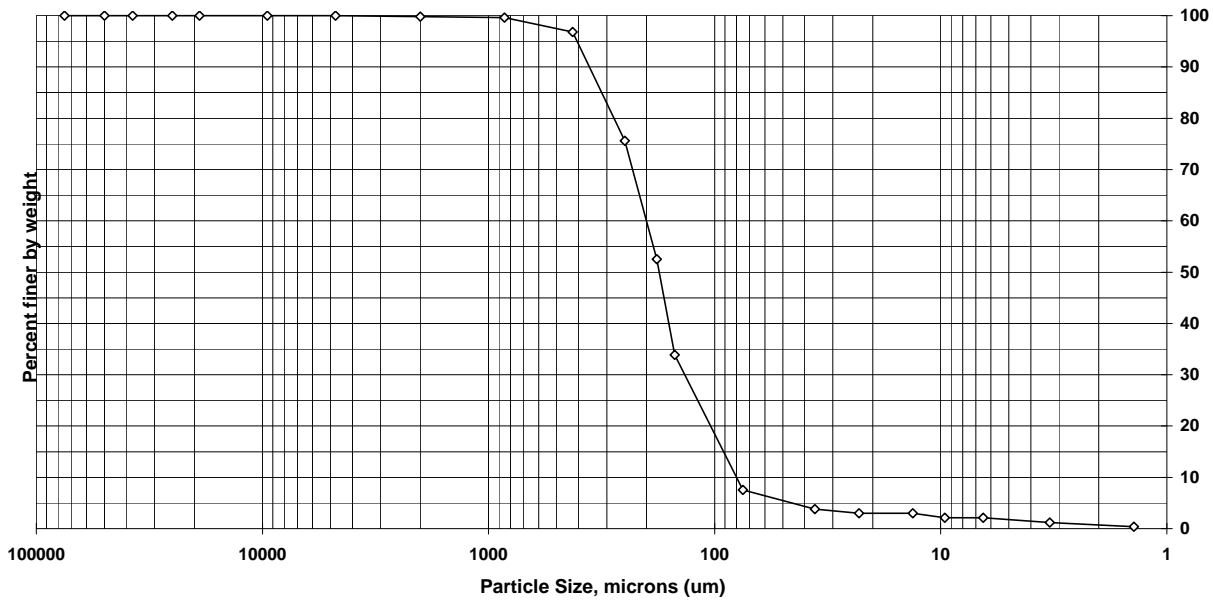
Percent Solids: 73.2%  
Specific Gravity: 2.650

Date Received: 10/15/2014  
Start Date: 10/29/2014  
End Date: 11/1/2014

Shape (> #10): na

Non-soil material: plant,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	99.6	0.2
#40	425	96.8	2.8
#60	250	75.6	21.2
#80	180	52.5	23.1
#100	150	33.9	18.6
#200	75	7.5	26.4
Hyd1	36	3.8	3.7
Hyd2	23	3.0	0.8
Hyd3	13.3	3.0	0.0
Hyd4	9.6	2.1	0.8
Hyd5	6.5	2.1	0.0
Hyd6	3.3	1.2	0.9
Hyd7	1.4	0.4	0.8

Soil Classification	Percent of sample
Gravel	0.0
Sand	92.5
Coarse Sand	0.2
Medium Sand	3.0
Fine Sand	89.3
Silt	5.4
Clay	2.1

# Particle Size of Soils by ASTM D422

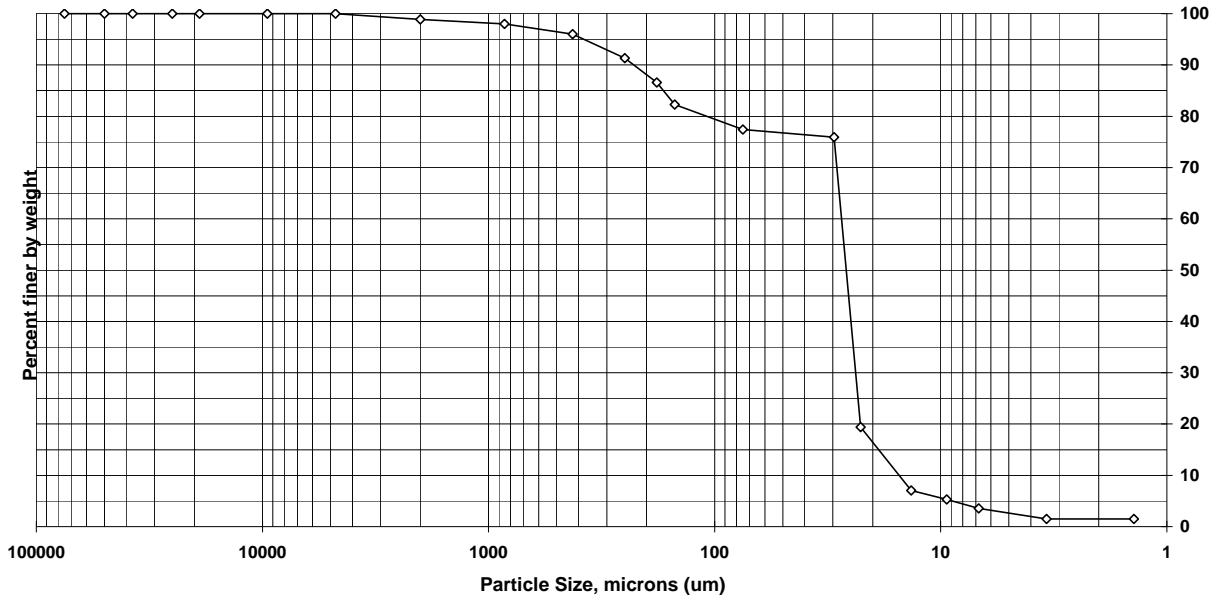
Sample ID: SD-B02  
Lab ID: 180-37750-A-5

Percent Solids: 30.4%  
Specific Gravity: 2.650

Date Received: 10/15/2014  
Start Date: 10/29/2014  
End Date: 11/1/2014

Shape (> #10): na

Non-soil material: plant,shell  
Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.9	1.1
#20	850	98.0	0.9
#40	425	96.0	2.0
#60	250	91.3	4.7
#80	180	86.6	4.7
#100	150	82.3	4.3
#200	75	77.4	4.9
Hyd1	29.6	75.9	1.5
Hyd2	22.6	19.4	56.5
Hyd3	13.5	7.1	12.3
Hyd4	9.4	5.3	1.8
Hyd5	6.8	3.5	1.8
Hyd6	3.4	1.5	2.1
Hyd7	1.4	1.5	0.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	22.6
Coarse Sand	1.1
Medium Sand	2.9
Fine Sand	18.6
Silt	73.9
Clay	3.5

# TestAmerica Burlington

## Sediment Grain Size - D422

Client	
Client Sample ID	SD-B01
Lab Sample ID	180-37750-A-4

Date Received	10/15/2014
Start Date	10/29/2014 22:32
End Date	11/01/2014 10:46

### Dry Weight Determination

Tin Weight	4.06 g
Wet Sample + Tin	224.19 g
Dry Sample + Tin	165.26 g
% Moisture	26.77 %

Non-soil material:	plant,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	10/29/2014 22:33
Date/Time out of oven	10/30/2014 16:38

### Sample Weights

	Tare (g)	Pan+Sample (g)	Sample (g)
Sample Weight (Wet)	50.48	308.11	257.63
Sample Weight (Oven Dried)			189

### Hydrometer Data

Serial Number	705151
Calib. Date (mm/dd/yyyy)	03/12/2013
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007833333
Default Soil Gravity	2.6500

### Sample Split (oven dried)

	Tare (g)	Pan+Sample (g)	Sample (g)
Sample >=#10			0.36
Sample <#10			189
% Passing #10			73.4

### Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer	Classification	Sub Class
3 inch	75000			0.00 g	100.0	Gravel	
2 inch	50000			0.00 g	100.0	Gravel	
1.5 inch	37500			0.00 g	100.0	Gravel	
1 inch	25000			0.00 g	100.0	Gravel	
3/4 inch	19000			0.00 g	100.0	Gravel	
3/8 inch	9500			0.00 g	100.0	Gravel	
#4	4750			0.00 g	100.0	Gravel	
#10	2000	462.86	463.22	0.36 g	99.8	Sand	Coarse
#20	850	380.72	381.05	0.33 g	99.6	Sand	Medium
#40	425	367.34	372.64	5.30 g	96.8	Sand	Medium
#60	250	349.10	389.10	40.00 g	75.6	Sand	Fine
#80	180	331.70	375.34	43.64 g	52.5	Sand	Fine
#100	150	331.02	366.21	35.19 g	33.9	Sand	Fine
#200	75	331.06	380.88	49.82 g	7.5	Sand	Fine
				0.00 g	7.5		

### Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	189
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### Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0090	20.0	36	3.82	Silt	
5	5	1.0080	20.0	23	2.97	Silt	
15	15	1.0080	20.0	13.3	2.97	Silt	
30	29	1.0070	20.0	9.6	2.12	Silt	
60	63	1.0070	20.0	6.5	2.12	Silt	
250	250	1.0060	19.5	3.3	1.2	Clay	
1440	1434	1.0050	19.5	1.4	0.354	Clay	

# TestAmerica Burlington

## Sediment Grain Size - D422

Client	
Client Sample ID	SD-B02
Lab Sample ID	180-37750-A-5

Date Received	10/15/2014
Start Date	10/29/2014 22:34
End Date	11/01/2014 11:04

### Dry Weight Determination

Tin Weight	4.07 g
Wet Sample + Tin	123.79 g
Dry Sample + Tin	40.49 g
% Moisture	69.58 %

Non-soil material:	plant,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	10/29/2014 22:36
Date/Time out of oven	10/30/2014 16:39

### Sample Weights

	Tare (g)	Pan+Sample (g)	Sample (g)
Sample Weight (Wet)	50.47	199.97	149.5
Sample Weight (Oven Dried)			45.5

### Hydrometer Data

Serial Number	705151
Calib. Date (mm/dd/yyyy)	03/12/2013
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.007833333
Default Soil Gravity	2.6500

### Sample Split (oven dried)

	Tare (g)	Pan+Sample (g)	Sample (g)
Sample >=#10			0.51
Sample <#10			45
% Passing #10			30.1

### Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer	Classification	Sub Class
3 inch	75000			0.00 g	100.0	Gravel	
2 inch	50000			0.00 g	100.0	Gravel	
1.5 inch	37500			0.00 g	100.0	Gravel	
1 inch	25000			0.00 g	100.0	Gravel	
3/4 inch	19000			0.00 g	100.0	Gravel	
3/8 inch	9500			0.00 g	100.0	Gravel	
#4	4750			0.00 g	100.0	Gravel	
#10	2000	462.86	463.37	0.51 g	98.9	Sand	Coarse
#20	850	380.72	381.13	0.41 g	98.0	Sand	Medium
#40	425	367.34	368.25	0.91 g	96.0	Sand	Medium
#60	250	349.10	351.22	2.12 g	91.3	Sand	Fine
#80	180	331.70	333.86	2.16 g	86.6	Sand	Fine
#100	150	331.02	332.98	1.96 g	82.3	Sand	Fine
#200	75	331.06	333.29	2.23 g	77.4	Sand	Fine
				0.00 g	77.4		

### Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	45.5
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### Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0260	20.0	29.6	75.9	Silt	
5	5	1.0100	20.0	22.6	19.4	Silt	
15	15	1.0065	20.0	13.5	7.06	Silt	
30	31	1.0060	20.0	9.4	5.29	Silt	
60	60	1.0055	20.0	6.8	3.53	Silt	
250	240	1.0050	19.5	3.4	1.47	Clay	
1440	1424	1.0050	19.5	1.4	1.47	Clay	



Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Surrogate Recovery Report****8260C Volatile Organic Compounds by GC/MS****Client Matrix: Sediment**

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
180-37750-4	SD-B01	90	109	92	93
180-37750-5	SD-B02	90	103	109	88
180-37750-6	SD-B02-FD	93	108	112	88
180-37750-7	SD-C01	91	104	106	94
180-37750-8	SD-C02	90	108	108	93
180-37750-9	SD-C03	92	103	110	88
MB 180-121882/1-A		89	112	93	92
LCS 180-121882/2-A		93	116	94	100
180-37750-4 MS	SD-B01 MS	93	120	100	100
180-37750-4 MSD	SD-B01 MSD	91	115	96	97

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	68-121
DCA = 1,2-Dichloroethane-d4 (Surr)	52-124
TOL = Toluene-d8 (Surr)	72-127
BFB = 4-Bromofluorobenzene (Surr)	63-120

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Surrogate Recovery Report****8270D LL Semivolatile Organic Compounds by GC/MS - Low Level****Client Matrix: Sediment**

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
180-37750-4	SD-B01	76	68	89	71	61	83
180-37750-5	SD-B02	0X D	0X D	0X D	0X D	0X D	0X D
180-37750-6	SD-B02-FD	0X D	0X D	0X D	0X D	0X D	0X D
180-37750-7	SD-C01	57	61	71	64	40	79
180-37750-8	SD-C02	0X D	0X D	0X D	0X D	0X D	0X D
180-37750-9	SD-C03	0X D	0X D	0X D	0X D	0X D	0X D
MB 180-122598/1-A		82	73	83	71	70	75
LCS 180-122598/2-A		77	72	82	70	83	72
180-37750-4 MS	SD-B01 MS	79	73	92	75	98	83
180-37750-4 MSD	SD-B01 MSD	76	71	92	77	101	74

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	28-107
PHL = Phenol-d5 (Surr)	30-112
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TBP = 2,4,6-Tribromophenol (Surr)	21-116
TPH = Terphenyl-d14 (Surr)	21-130

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## Surrogate Recovery Report

### 8270D LL Semivolatile Organic Compounds by GC/MS - Low Level

#### Client Matrix: Sediment

Lab Sample ID	Client Sample ID	NBZ %Rec	FBP %Rec	TPH %Rec
180-37750-1	SD-A01	89	80	75
180-37750-2	SD-A02	71	69	57
180-37750-3	SD-A03	76	65	55

Surrogate	Acceptance Limits
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## Surrogate Recovery Report

### 8082A Polychlorinated Biphenyls (PCBs) (GC)

#### Client Matrix: Sediment

Lab Sample ID	Client Sample ID	TCX2 %Rec	DCB2 %Rec
180-37750-4	SD-B01	77	98
180-37750-5	SD-B02	80	204X
180-37750-6	SD-B02-FD	79	332X
180-37750-7	SD-C01	71	115
180-37750-8	SD-C02	90	207X
180-37750-9	SD-C03	69	260X
MB 180-122691/1-C		85	97
LCS 180-122691/2-C		70	96
180-37750-4 MS	SD-B01 MS	76	92
180-37750-4 MSD	SD-B01 MSD	75	95

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene (Surr)	30-150
DCB = DCB Decachlorobiphenyl (Surr)	20-150

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-121882

### Method: 8260C Preparation: 5030C

Lab Sample ID: MB 180-121882/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/17/2014 2125  
Prep Date: 10/17/2014 1939  
Leach Date: N/A

Analysis Batch: 180-121881  
Prep Batch: 180-121882  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CHHP3  
Lab File ID: 31017K03.D  
Initial Weight/Volume: 5.00 g  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.49	5.0
1,1,2,2-Tetrachloroethane	ND		0.72	5.0
1,1,2-Trichloroethane	ND		0.83	5.0
1,1-Dichloroethane	ND		0.58	5.0
1,1-Dichloroethene	ND		0.85	5.0
1,2-Dichlorobenzene	ND		0.80	5.0
1,2-Dichloroethane	ND		0.61	5.0
1,2-Dichloropropane	ND		0.54	5.0
1,3-Dichlorobenzene	ND		0.66	5.0
1,4-Dichlorobenzene	ND		0.64	5.0
2-Chloroethyl vinyl ether	ND		0.77	10
Acrolein	ND		7.0	100
Acrylonitrile	ND		10	100
Benzene	ND		0.68	5.0
Bromoform	ND		0.44	5.0
Bromomethane	ND		0.74	5.0
Carbon tetrachloride	ND		0.45	5.0
Chlorobenzene	ND		0.76	5.0
Chloroform	ND		0.58	5.0
Chloromethane	ND		0.85	5.0
Chlorodibromomethane	ND		0.71	5.0
cis-1,3-Dichloropropene	ND		0.68	5.0
Dichlorobromomethane	ND		0.56	5.0
Ethylbenzene	ND		0.64	5.0
Methylene Chloride	ND		0.67	5.0
Tetrachloroethene	ND		0.68	5.0
Toluene	1.22	J	0.73	5.0
trans-1,2-Dichloroethene	ND		0.60	5.0
trans-1,3-Dichloropropene	ND		0.60	5.0
Trichloroethene	ND		0.66	5.0
Vinyl chloride	ND		0.47	5.0
Chloroethane	ND		1.5	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	52 - 124
4-Bromofluorobenzene (Surr)	92	63 - 120
Dibromofluoromethane (Surr)	89	68 - 121
Toluene-d8 (Surr)	93	72 - 127

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Lab Control Sample - Batch: 180-121882

Method: 8260C

Preparation: 5030C

Lab Sample ID: LCS 180-121882/2-A  
 Client Matrix: Sediment  
 Dilution: 1.0  
 Analysis Date: 10/17/2014 2210  
 Prep Date: 10/17/2014 1939  
 Leach Date: N/A

Analysis Batch: 180-121881  
 Prep Batch: 180-121882  
 Leach Batch: N/A  
 Units: ug/Kg

Instrument ID: CHHP3  
 Lab File ID: 31017K05.D  
 Initial Weight/Volume: 5.00 g  
 Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	40.0	46.5	116	67 - 126	
1,1,2,2-Tetrachloroethane	40.0	46.9	117	60 - 139	
1,1,2-Trichloroethane	40.0	45.0	113	70 - 128	
1,1-Dichloroethane	40.0	44.2	111	66 - 124	
1,1-Dichloroethene	40.0	41.4	104	59 - 129	
1,2-Dichlorobenzene	40.0	41.6	104	71 - 124	
1,2-Dichloroethane	40.0	52.3	131	61 - 127	*
1,2-Dichloropropane	40.0	42.9	107	72 - 122	
1,3-Dichlorobenzene	40.0	40.5	101	75 - 118	
1,4-Dichlorobenzene	40.0	40.8	102	77 - 116	
Benzene	40.0	42.8	107	77 - 120	
Bromoform	40.0	45.0	113	53 - 140	
Bromomethane	40.0	58.3	146	25 - 150	
Carbon tetrachloride	40.0	49.5	124	69 - 122	*
Chlorobenzene	40.0	44.3	111	79 - 120	
Chloroform	40.0	45.7	114	72 - 120	
Chloromethane	40.0	34.5	86	44 - 131	
Chlorodibromomethane	40.0	47.8	119	70 - 132	
cis-1,3-Dichloropropene	40.0	47.3	118	73 - 120	
Dichlorobromomethane	40.0	47.5	119	70 - 125	
Ethylbenzene	40.0	43.7	109	78 - 125	
Methylene Chloride	40.0	43.0	108	58 - 127	
Tetrachloroethene	40.0	42.6	106	78 - 129	
Toluene	40.0	45.9	115	78 - 124	
trans-1,2-Dichloroethene	40.0	40.0	100	77 - 121	
trans-1,3-Dichloropropene	40.0	50.7	127	74 - 129	
Trichloroethene	40.0	40.1	100	76 - 119	
Vinyl chloride	40.0	35.0	88	63 - 124	
Chloroethane	40.0	45.4	113	22 - 150	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	52 - 124
4-Bromofluorobenzene (Surr)	100	63 - 120
Dibromofluoromethane (Surr)	93	68 - 121
Toluene-d8 (Surr)	94	72 - 127

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-121882**

**Method: 8260C  
Preparation: 5030C**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-121881	Instrument ID:	CHHP3
Client Matrix:	Sediment	Prep Batch:	180-121882	Lab File ID:	31017K06.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.0010 g
Analysis Date:	10/17/2014 2233			Final Weight/Volume:	5 mL
Prep Date:	10/17/2014 1939				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-121881	Instrument ID:	CHHP3
Client Matrix:	Sediment	Prep Batch:	180-121882	Lab File ID:	31017K07.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.0015 g
Analysis Date:	10/17/2014 2256			Final Weight/Volume:	5 mL
Prep Date:	10/17/2014 1939				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,1,1-Trichloroethane	123	100	67 - 126	20	31		
1,1,2,2-Tetrachloroethane	117	89	60 - 139	27	24		F2
1,1,2-Trichloroethane	111	92	70 - 128	19	22		
1,1-Dichloroethane	120	99	66 - 124	19	23		
1,1-Dichloroethene	107	86	59 - 129	22	25		
1,2-Dichlorobenzene	109	88	71 - 124	21	22		
1,2-Dichloroethane	137	113	61 - 127	19	23	F1	
1,2-Dichloropropane	114	94	72 - 122	19	20		
1,3-Dichlorobenzene	107	86	75 - 118	22	20		F2
1,4-Dichlorobenzene	107	87	77 - 116	20	20		
Benzene	110	93	77 - 120	17	20		
Bromoform	110	93	53 - 140	17	23		
Bromomethane	146	122	25 - 150	18	40		
Carbon tetrachloride	127	108	69 - 122	16	22	F1	
Chlorobenzene	114	89	79 - 120	24	20		F2
Chloroform	119	105	72 - 120	13	25		
Chloromethane	96	78	44 - 131	21	27		
Chlorodibromomethane	120	95	70 - 132	23	20		F2
cis-1,3-Dichloropropene	119	100	73 - 120	17	20		
Dichlorobromomethane	125	103	70 - 125	20	21		
Ethylbenzene	114	88	78 - 125	26	21		F2
Methylene Chloride	55	93	58 - 127	51	28	F1	F2
Tetrachloroethene	106	86	78 - 129	21	20		F2
Toluene	115	97	78 - 124	16	21		
trans-1,2-Dichloroethene	107	84	77 - 121	24	20		F2
trans-1,3-Dichloropropene	131	105	74 - 129	22	20	F1	F2
Trichloroethene	97	83	76 - 119	16	21		
Vinyl chloride	97	80	63 - 124	19	27		
Chloroethane	111	90	22 - 150	21	40		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
1,2-Dichloroethane-d4 (Surr)	120		115	52 - 124			
4-Bromofluorobenzene (Surr)	100		97	63 - 120			
Dibromofluoromethane (Surr)	93		91	68 - 121			

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	100	96	72 - 127

### Matrix Spike/

**Matrix Spike Duplicate Recovery Report - Batch: 180-121882**

**Method: 8260C**

**Preparation: 5030C**

MS Lab Sample ID: 180-37750-4      Units: ug/Kg  
 Client Matrix: Sediment  
 Dilution: 1.0  
 Analysis Date: 10/17/2014 2233  
 Prep Date: 10/17/2014 1939  
 Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
 Client Matrix: Sediment  
 Dilution: 1.0  
 Analysis Date: 10/17/2014 2256  
 Prep Date: 10/17/2014 1939  
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1,1-Trichloroethane	ND	56.6	56.6	69.5	56.6
1,1,2,2-Tetrachloroethane	ND	56.6	56.6	66.3	50.3 F2
1,1,2-Trichloroethane	ND	56.6	56.6	62.9	51.8
1,1-Dichloroethane	ND	56.6	56.6	67.8	56.1
1,1-Dichloroethene	ND	56.6	56.6	60.5	48.4
1,2-Dichlorobenzene	ND	56.6	56.6	61.6	49.8
1,2-Dichloroethane	ND	56.6	56.6	77.8 F1	64.1
1,2-Dichloropropane	ND	56.6	56.6	64.6	53.3
1,3-Dichlorobenzene	ND	56.6	56.6	60.6	48.6 F2
1,4-Dichlorobenzene	ND	56.6	56.6	60.5	49.4
Benzene	ND	56.6	56.6	62.2	52.7
Bromoform	ND	56.6	56.6	62.4	52.8
Bromomethane	ND	56.6	56.6	82.5	68.9
Carbon tetrachloride	ND	56.6	56.6	71.6 F1	61.3
Chlorobenzene	ND	56.6	56.6	64.6	50.6 F2
Chloroform	ND	56.6	56.6	67.6	59.3
Chloromethane	ND	56.6	56.6	54.6	44.3
Chlorodibromomethane	ND	56.6	56.6	67.7	53.9 F2
cis-1,3-Dichloropropene	ND	56.6	56.6	67.4	56.6
Dichlorobromomethane	ND	56.6	56.6	70.9	58.1
Ethylbenzene	ND	56.6	56.6	64.7	49.9 F2
Methylene Chloride	ND	56.6	56.6	31.3 F1	52.6 F2
Tetrachloroethene	ND	56.6	56.6	60.0	48.8 F2
Toluene	1.7 J	56.6	56.6	66.6	56.6
trans-1,2-Dichloroethene	ND	56.6	56.6	60.4	47.4 F2
trans-1,3-Dichloropropene	ND	56.6	56.6	74.0 F1	59.3 F2
Trichloroethene	ND	56.6	56.6	55.0	47.0
Vinyl chloride	ND	56.6	56.6	54.6	45.0
Chloroethane	ND	56.6	56.6	62.9	51.0



# Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

## Method Blank - Batch: 180-122598

## Method: 8270D LL

## Preparation: 3541

Lab Sample ID: MB 180-122598/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1321  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-122953  
Prep Batch: 180-122598  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CH731  
Lab File ID: V1028005.D  
Initial Weight/Volume: 30.0 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

Analyte	Result	Qual	MDL	RL
Anthracene	ND		0.33	3.4
Benzidine	ND		70	340
Benzo[a]anthracene	ND		0.42	3.4
Benzo[b]fluoranthene	ND		0.52	3.4
Benzo[k]fluoranthene	ND		0.67	3.4
Benzoic acid	ND		6.9	85
Benzo[g,h,i]perylene	ND		0.33	3.4
Benzo[a]pyrene	ND		0.33	3.4
Bis(2-chloroethoxy)methane	ND		1.1	17
Bis(2-chloroethyl)ether	ND		0.45	3.4
2,2'-oxybis[1-chloropropane]	ND		0.36	3.4
Acenaphthene	ND		0.32	3.4
4-Bromophenyl phenyl ether	ND		1.5	17
Acenaphthylene	ND		0.38	3.4
4-Chlorophenyl phenyl ether	ND		1.9	17
2-Chloronaphthalene	ND		0.35	3.4
Butyl benzyl phthalate	ND		2.3	17
Chrysene	ND		0.40	3.4
Bis(2-ethylhexyl) phthalate	ND		2.7	33
Dibenz(a,h)anthracene	ND		0.37	3.4
Di-n-butyl phthalate	ND		2.1	17
Di-n-octyl phthalate	ND		1.8	17
Diethyl phthalate	1.94	J	1.8	17
Dimethyl phthalate	ND		1.8	17
3,3'-Dichlorobenzidine	ND		1.8	17
2,4-Dinitrotoluene	ND		1.3	17
2,6-Dinitrotoluene	ND		1.7	17
2-Chlorophenol	ND		1.4	17
2,4-Dichlorophenol	ND		0.33	3.4
2,4-Dimethylphenol	ND		2.6	17
2,4-Dinitrophenol	ND		20	85
2-Nitrophenol	ND		1.8	17
2,4,6-Trichlorophenol	ND		2.5	17
1,2-Diphenylhydrazine(as Azobenzene)	ND		2.1	17
1,2,4-Trichlorobenzene	ND		0.92	17
4-Chloro-3-methylphenol	ND		1.5	17
4-Nitrophenol	ND		6.1	85
4,6-Dinitro-2-methylphenol	ND		6.7	85
Fluoranthene	ND		0.36	3.4
Fluorene	ND		0.44	3.4
Hexachlorobenzene	ND		0.36	3.4
Hexachlorobutadiene	ND		0.37	3.4
Hexachlorocyclopentadiene	ND		1.8	17
Hexachloroethane	ND		1.2	17
Indeno[1,2,3-cd]pyrene	ND		0.34	3.4

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122598

### Method: 8270D LL Preparation: 3541

Lab Sample ID: MB 180-122598/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1321  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-122953  
Prep Batch: 180-122598  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CH731  
Lab File ID: V1028005.D  
Initial Weight/Volume: 30.0 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

Analyte	Result	Qual	MDL	RL
Isophorone	ND		1.3	17
Naphthalene	ND		0.29	3.4
Nitrobenzene	ND		1.4	33
N-Nitrosodi-n-propylamine	ND		0.39	3.4
N-Nitrosodimethylamine	ND		1.4	17
N-Nitrosodiphenylamine	ND		1.5	17
Phenanthrene	ND		0.53	3.4
Pyrene	ND		0.34	3.4
Pentachlorophenol	ND		1.5	17
Phenol	ND		0.39	3.4

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70	21 - 116
2-Fluorobiphenyl	71	28 - 108
2-Fluorophenol (Surr)	82	28 - 107
Nitrobenzene-d5 (Surr)	83	27 - 110
Phenol-d5 (Surr)	73	30 - 112
Terphenyl-d14 (Surr)	75	21 - 130

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Lab Control Sample - Batch: 180-122598

Method: 8270D LL

Preparation: 3541

Lab Sample ID: LCS 180-122598/2-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1418  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-122953  
Prep Batch: 180-122598  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CH731  
Lab File ID: V1028007.D  
Initial Weight/Volume: 30.0 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Anthracene	333	229	69	43 - 111	J
Benidine	333	80.2	24	10 - 150	
Benzo[a]anthracene	333	221	66	45 - 110	
Benzo[b]fluoranthene	333	200	60	37 - 108	
Benzo[k]fluoranthene	333	212	64	39 - 115	
Benzoic acid	333	324	97	10 - 93	*
Benzo[g,h,i]perylene	333	197	59	35 - 127	
Benzo[a]pyrene	333	212	63	42 - 114	
Bis(2-chloroethoxy)methane	333	223	67	42 - 103	
Bis(2-chloroethyl)ether	333	207	62	40 - 100	
2,2'-oxybis[1-chloropropane]	333	194	58	37 - 105	
Acenaphthene	333	239	72	42 - 104	
4-Bromophenyl phenyl ether	333	253	76	43 - 111	
Acenaphthylene	333	228	68	43 - 117	
4-Chlorophenyl phenyl ether	333	238	71	42 - 111	
2-Chloronaphthalene	333	213	64	40 - 104	
Butyl benzyl phthalate	333	250	75	40 - 117	
Chrysene	333	213	64	44 - 108	
Bis(2-ethylhexyl) phthalate	333	253	76	41 - 121	
Dibenz(a,h)anthracene	333	204	61	34 - 131	
Di-n-butyl phthalate	333	266	80	44 - 120	
Di-n-octyl phthalate	333	255	76	35 - 129	
Diethyl phthalate	333	283	85	44 - 113	
Dimethyl phthalate	333	252	76	44 - 111	
3,3'-Dichlorobenzidine	333	220	66	24 - 113	
2,4-Dinitrotoluene	333	252	76	48 - 118	
2,6-Dinitrotoluene	333	238	71	47 - 119	
2-Chlorophenol	333	219	66	40 - 105	
2,4-Dichlorophenol	333	206	62	44 - 110	
2,4-Dimethylphenol	333	233	70	39 - 106	
2,4-Dinitrophenol	667	516	77	19 - 140	
2-Nitrophenol	333	249	75	45 - 112	
2,4,6-Trichlorophenol	333	271	81	43 - 111	
1,2-Diphenylhydrazine(as Azobenzene)	333	271	81	29 - 110	
1,2,4-Trichlorobenzene	333	233	70	41 - 105	
4-Chloro-3-methylphenol	333	236	71	43 - 110	
4-Nitrophenol	667	792	119	27 - 131	
4,6-Dinitro-2-methylphenol	667	528	79	28 - 130	
Fluoranthene	333	245	74	40 - 118	
Fluorene	333	247	74	43 - 110	
Hexachlorobenzene	333	264	79	42 - 110	
Hexachlorobutadiene	333	258	78	40 - 114	
Hexachlorocyclopentadiene	333	262	79	10 - 150	
Hexachloroethane	333	224	67	40 - 102	
Indeno[1,2,3-cd]pyrene	333	197	59	34 - 130	
Isophorone	333	264	79	39 - 114	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Lab Control Sample - Batch: 180-122598

Method: 8270D LL

Preparation: 3541

Lab Sample ID:	LCS 180-122598/2-A	Analysis Batch:	180-122953	Instrument ID:	CH731
Client Matrix:	Sediment	Prep Batch:	180-122598	Lab File ID:	V1028007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/28/2014 1418	Units:	ug/Kg	Final Weight/Volume:	0.5 mL
Prep Date:	10/24/2014 0310			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Naphthalene	333	217	65	42 - 104	
Nitrobenzene	333	263	79	40 - 109	
N-Nitrosodi-n-propylamine	333	255	77	42 - 108	
N-Nitrosodimethylamine	333	303	91	33 - 116	
N-Nitrosodiphenylamine	333	227	68	41 - 110	
Phenanthrene	333	225	67	41 - 107	
Pyrene	333	206	62	39 - 113	
Pentachlorophenol	667	526	79	18 - 125	
Phenol	333	220	66	39 - 105	
Surrogate	% Rec		Acceptance Limits		
2,4,6-Tribromophenol (Surr)	83		21 - 116		
2-Fluorobiphenyl	70		28 - 108		
2-Fluorophenol (Surr)	77		28 - 107		
Nitrobenzene-d5 (Surr)	82		27 - 110		
Phenol-d5 (Surr)	72		30 - 112		
Terphenyl-d14 (Surr)	72		21 - 130		

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122598**

**Method: 8270D LL  
Preparation: 3541**

MS Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2008  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-123272  
Prep Batch: 180-122598  
Leach Batch: N/A

Instrument ID: CH731  
Lab File ID: V1030026.D  
Initial Weight/Volume: 30.1 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2037  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-123272  
Prep Batch: 180-122598  
Leach Batch: N/A

Instrument ID: CH731  
Lab File ID: V1030027.D  
Initial Weight/Volume: 30.0 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Acenaphthene	68	72	42 - 104	7	34		
Acenaphthylene	69	74	43 - 117	8	36		
Anthracene	71	75	43 - 111	5	35		
Benzidine	0	0	10 - 150	NC	30	F1	F1
Benzo[a]anthracene	79	75	45 - 110	5	31		
Benzo[b]fluoranthene	63	60	37 - 108	4	28		
Benzo[k]fluoranthene	65	63	39 - 115	2	42		
Benzoic acid	48	50	10 - 93	5	36	J	J
Benzo[g,h,i]perylene	95	89	35 - 127	7	21		
Benzo[a]pyrene	70	67	42 - 114	4	31		
Bis(2-chloroethoxy)methane	71	72	42 - 103	1	35		
Bis(2-chloroethyl)ether	62	69	40 - 100	10	33		
Bis(2-ethylhexyl) phthalate	99	96	41 - 121	2	31		
2,2'-oxybis[1-chloropropane]	60	64	37 - 105	7	31		
4-Bromophenyl phenyl ether	97	103	43 - 111	7	20		
4-Chlorophenyl phenyl ether	71	74	42 - 111	5	37		
2-Chloronaphthalene	64	68	40 - 104	6	34		
Butyl benzyl phthalate	100	93	40 - 117	6	34		
Chrysene	73	70	44 - 108	4	31		
Dibenz(a,h)anthracene	85	83	34 - 131	1	32		
Di-n-butyl phthalate	78	84	44 - 120	7	34		
Di-n-octyl phthalate	90	84	35 - 129	7	33		
Diethyl phthalate	87	95	44 - 113	9	32		
Dimethyl phthalate	81	87	44 - 111	8	34		
3,3'-Dichlorobenzidine	71	65	24 - 113	8	30		
2,4-Dinitrotoluene	81	86	48 - 118	6	33		
2,6-Dinitrotoluene	81	85	47 - 119	5	30		
2-Chlorophenol	63	68	40 - 105	7	37		
2,4-Dichlorophenol	67	69	44 - 110	3	27		
2,4-Dimethylphenol	75	84	39 - 106	12	42		
2,4-Dinitrophenol	24	26	19 - 140	10	43	J	J
2-Nitrophenol	70	75	45 - 112	7	30		
2,4,6-Trichlorophenol	76	80	43 - 111	6	36		

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122598**

**Method: 8270D LL  
Preparation: 3541**

MS Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2008  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-123272  
Prep Batch: 180-122598  
Leach Batch: N/A

Instrument ID: CH731  
Lab File ID: V1030026.D  
Initial Weight/Volume: 30.1 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2037  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analysis Batch: 180-123272  
Prep Batch: 180-122598  
Leach Batch: N/A

Instrument ID: CH731  
Lab File ID: V1030027.D  
Initial Weight/Volume: 30.0 g  
Final Weight/Volume: 0.5 mL  
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,2-Diphenylhydrazine(as Azobenzene)	130	139	29 - 110	7	33	F1	F1
1,2,4-Trichlorobenzene	65	72	41 - 105	11	36		
4-Chloro-3-methylphenol	74	82	43 - 110	11	31		
4-Nitrophenol	117	118	27 - 131	1	33		
4,6-Dinitro-2-methylphenol	79	88	28 - 130	11	35		
Fluoranthene	64	66	40 - 118	4	23		
Fluorene	71	76	43 - 110	6	37		
Hexachlorobenzene	89	99	42 - 110	11	29		
Hexachlorobutadiene	74	81	40 - 114	10	25		
Hexachlorocyclopentadiene	4	4	10 - 150	3	33	J F1	J F1
Hexachloroethane	52	52	40 - 102	1	34		
Indeno[1,2,3-cd]pyrene	90	84	34 - 130	7	30		
Isophorone	85	91	39 - 114	8	33		
Naphthalene	62	67	42 - 104	8	25		
Nitrobenzene	84	88	40 - 109	5	31		
N-Nitrosodi-n-propylamine	81	82	42 - 108	2	32		
N-Nitrosodimethylamine	90	94	33 - 116	5	30		
N-Nitrosodiphenylamine	99	109	41 - 110	10	32		
Phenanthrene	72	77	41 - 107	7	20		
Pyrene	72	72	39 - 113	1	28		
Pentachlorophenol	13	16	18 - 125	23	34	F1	F1
Phenol	67	71	39 - 105	7	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	98	101	21 - 116
2-Fluorobiphenyl	75	77	28 - 108
2-Fluorophenol (Surr)	79	76	28 - 107
Nitrobenzene-d5 (Surr)	92	92	27 - 110
Phenol-d5 (Surr)	73	71	30 - 112
Terphenyl-d14 (Surr)	83	74	21 - 130

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-122598

Method: 8270D LL  
Preparation: 3541

MS Lab Sample ID: 180-37750-4 Units: ug/Kg  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2008  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2037  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	ND	470	472	320	342
Acenaphthylene	ND	470	472	322	348
Anthracene	ND	470	472	334	352
Benzydine	ND	470	472	ND	ND
Benzo[a]anthracene	ND	470	472	372	355
Benzo[b]fluoranthene	ND	470	472	294	282
Benzo[k]fluoranthene	ND	470	472	305	299
Benzoic acid	ND	470	472	224	236
Benzo[g,h,i]perylene	ND	470	472	448	419
Benzo[a]pyrene	ND	470	472	331	317
Bis(2-chloroethoxy)methane	ND	470	472	333	337
Bis(2-chloroethyl)ether	ND	470	472	293	323
Bis(2-ethylhexyl) phthalate	ND	470	472	464	455
2,2'-oxybis[1-chloropropane]	ND	470	472	283	303
4-Bromophenyl phenyl ether	ND	470	472	455	487
4-Chlorophenyl phenyl ether	ND	470	472	334	351
2-Chloronaphthalene	ND	470	472	303	323
Butyl benzyl phthalate	ND	470	472	468	440
Chrysene	ND	470	472	343	330
Dibenz(a,h)anthracene	ND	470	472	399	394
Di-n-butyl phthalate	ND	470	472	369	395
Di-n-octyl phthalate	ND	470	472	423	396
Diethyl phthalate	ND	470	472	409	446
Dimethyl phthalate	ND	470	472	379	412
3,3'-Dichlorobenzidine	ND	470	472	333	306
2,4-Dinitrotoluene	ND	470	472	383	406
2,6-Dinitrotoluene	ND	470	472	380	399
2-Chlorophenol	ND	470	472	298	321
2,4-Dichlorophenol	ND	470	472	316	326
2,4-Dimethylphenol	ND	470	472	352	397
2,4-Dinitrophenol	ND	940	944	222	247
2-Nitrophenol	ND	470	472	331	356
2,4,6-Trichlorophenol	ND	470	472	355	379
1,2-Diphenylhydrazine(as Azobenzene)	ND	470	472	611	654
1,2,4-Trichlorobenzene	ND	470	472	306	341
4-Chloro-3-methylphenol	ND	470	472	349	389
4-Nitrophenol	ND	940	944	1100	1110
4,6-Dinitro-2-methylphenol	ND	940	944	744	830
Fluoranthene	7.7	470	472	307	319
Fluorene	ND	470	472	336	356
Hexachlorobenzene	ND	470	472	419	467
Hexachlorobutadiene	ND	470	472	346	382
Hexachlorocyclopentadiene	ND	470	472	17.4	18.0

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122598**

**Method: 8270D LL  
Preparation: 3541**

MS Lab Sample ID: 180-37750-4 Units: ug/Kg  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2008  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 4.0  
Analysis Date: 10/30/2014 2037  
Prep Date: 10/24/2014 0310  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Hexachloroethane	ND	470	472	245	247
Indeno[1,2,3-cd]pyrene	ND	470	472	424	394
Isophorone	ND	470	472	399	430
Naphthalene	4.1 J	470	472	298	321
Nitrobenzene	ND	470	472	393	413
N-Nitrosodi-n-propylamine	ND	470	472	380	389
N-Nitrosodimethylamine	ND	470	472	421	442
N-Nitrosodiphenylamine	ND	470	472	465	516
Phenanthrene	ND	470	472	340	365
Pyrene	7.9 J	470	472	349	346
Pentachlorophenol	ND	940	944	119 F1	150 F1
Phenol	ND	470	472	313	335



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122691

### Method: 8082A Preparation: 3541

Lab Sample ID:	MB 180-122691/1-C	Analysis Batch:	180-123252	Instrument ID:	CHGC16
Client Matrix:	Sediment	Prep Batch:	180-122691	Lab File ID:	103014015.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/30/2014 1111	Units:	ug/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	10/25/2014 0315			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.062	0.42
PCB-1221	ND		0.080	0.42
PCB-1232	ND		0.071	0.42
PCB-1242	ND		0.068	0.42
PCB-1248	ND		0.039	0.42
PCB-1254	ND		0.059	0.42
PCB-1260	ND		0.059	0.42

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	97	20 - 150
Tetrachloro-m-xylene (Surr)	85	30 - 150

### Lab Control Sample - Batch: 180-122691

### Method: 8082A Preparation: 3541

Lab Sample ID:	LCS 180-122691/2-C	Analysis Batch:	180-123252	Instrument ID:	CHGC16
Client Matrix:	Sediment	Prep Batch:	180-122691	Lab File ID:	103014031.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/30/2014 1619	Units:	ug/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	10/25/2014 0315			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	33.3	25.8	77	50 - 120	
PCB-1260	33.3	29.8	89	50 - 120	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl (Surr)	96	20 - 150
Tetrachloro-m-xylene (Surr)	70	30 - 150

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-122691

Method: 8082A  
Preparation: 3541

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-123252	Instrument ID:	CHGC16
Client Matrix:	Sediment	Prep Batch:	180-122691	Lab File ID:	103014017.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/30/2014 1149			Final Weight/Volume:	1.0 mL
Prep Date:	10/25/2014 0315			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-123252	Instrument ID:	CHGC16
Client Matrix:	Sediment	Prep Batch:	180-122691	Lab File ID:	103014018.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	10/30/2014 1209			Final Weight/Volume:	1.0 mL
Prep Date:	10/25/2014 0315			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
PCB-1016	75	76	50 - 120	1	30		
PCB-1260	71	75	50 - 120	4	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl (Surr)	92		95	20 - 150			
Tetrachloro-m-xylene (Surr)	76		75	30 - 150			

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-122691

Method: 8082A  
Preparation: 3541

MS Lab Sample ID:	180-37750-4	Units:	ug/Kg	MSD Lab Sample ID:	180-37750-4
Client Matrix:	Sediment			Client Matrix:	Sediment
Dilution:	10			Dilution:	10
Analysis Date:	10/30/2014 1149			Analysis Date:	10/30/2014 1209
Prep Date:	10/25/2014 0315			Prep Date:	10/25/2014 0315
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
PCB-1016	ND	47.2	46.9	35.4	35.7
PCB-1260	1.9 J	47.2	46.9	35.6	36.9

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-121962

Lab Sample ID: MB 180-121962/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1816  
Prep Date: 10/19/2014 1429  
Leach Date: N/A

Analysis Batch: 180-123073  
Prep Batch: 180-121962  
Leach Batch: N/A  
Units: mg/Kg

### Method: 6010B Preparation: AVSSEM SEM/AVS

Instrument ID: C  
Lab File ID: C41028B.asc  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 250 mL

Analyte	Result	Qual	MDL	RL
Cadmium SEM	ND		0.0041	0.13
Copper SEM	0.123	J	0.056	0.63
Lead SEM	ND		0.050	0.25
Nickel SEM	ND		0.029	1.0
Zinc SEM	0.856	J	0.18	2.5

### Method Blank - Batch: 180-121962

Lab Sample ID: MB 180-121962/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1816  
Prep Date: 10/19/2014 1429  
Leach Date: N/A

Analysis Batch: 180-123073  
Prep Batch: 180-121962  
Leach Batch: N/A  
Units: umol/g

### Method: 6010B Preparation: AVSSEM SEM/AVS

Instrument ID: C  
Lab File ID: C41028B.asc  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 250 mL

Analyte	Result	Qual	MDL	RL
Cadmium SEM	ND		0.000036	0.0011
Copper SEM	0.00193	J	0.00088	0.0098
Lead SEM	ND		0.00024	0.0012
Nickel SEM	ND		0.00049	0.017
Zinc SEM	0.0131	J	0.0028	0.038

### Lab Control Sample - Batch: 180-121962

Lab Sample ID: LCS 180-121962/2-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/28/2014 1822  
Prep Date: 10/19/2014 1429  
Leach Date: N/A

Analysis Batch: 180-123073  
Prep Batch: 180-121962  
Leach Batch: N/A  
Units: mg/Kg

### Method: 6010B Preparation: AVSSEM SEM/AVS

Instrument ID: C  
Lab File ID: C41028B.asc  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 250 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium SEM	1.25	1.28	102	80 - 120	
Copper SEM	6.25	6.21	99	80 - 120	
Lead SEM	12.5	11.9	95	80 - 120	
Nickel SEM	12.5	11.9	95	80 - 120	
Zinc SEM	12.5	13.6	109	80 - 120	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-121962**

**Method: 6010B  
Preparation: AVSSEM  
SEM/AVS**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-123073	Instrument ID:	C
Client Matrix:	Sediment	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.94 g
Analysis Date:	10/28/2014 1852			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-123073	Instrument ID:	C
Client Matrix:	Sediment	Prep Batch:	180-121962	Lab File ID:	C41028B.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.96 g
Analysis Date:	10/28/2014 1857			Final Weight/Volume:	250 mL
Prep Date:	10/19/2014 1429				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cadmium SEM	74	90	75 - 125	12	20	F1	
Copper SEM	72	83	75 - 125	9	20	F1	
Lead SEM	75	89	75 - 125	11	20		
Nickel SEM	92	92	75 - 125	0	20		
Zinc SEM	-178	12	75 - 125	37	20	4	4 F2

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-121962**

**Method: 6010B  
Preparation: AVSSEM  
SEM/AVS**

MS Lab Sample ID:	180-37750-4	Units:	mg/Kg	MSD Lab Sample ID:	180-37750-4
Client Matrix:	Sediment			Client Matrix:	Sediment
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/28/2014 1852			Analysis Date:	10/28/2014 1857
Prep Date:	10/19/2014 1429			Prep Date:	10/19/2014 1429
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS		MSD	
				Result/Qual		Result/Qual	
Cadmium SEM	0.81	1.78	1.78	2.13	F1	2.41	
Copper SEM	4.8	8.90	8.88	11.1	F1	12.1	
Lead SEM	7.8	17.8	17.8	21.1		23.5	
Nickel SEM	1.7	17.8	17.8	18.1		18.1	
Zinc SEM	100	17.8	17.8	73.2	4	107	4 F2

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Serial Dilution - Batch: 180-121962

Method: 6010B

Preparation: AVSSEM

SEM/AVS

Lab Sample ID: 180-37750-4

Analysis Batch: 180-123073

Instrument ID: C

Client Matrix: Sediment

Prep Batch: 180-121962

Lab File ID: C41028B.asc

Dilution: 5.0

Leach Batch: N/A

Initial Weight/Volume: 10.01 g

Analysis Date: 10/28/2014 1847

Units: mg/Kg

Final Weight/Volume: 250 mL

Prep Date: 10/19/2014 1429

Leach Date: N/A

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Cadmium SEM	0.81	0.792	2.8	10	J
Copper SEM	4.8	5.07	6.3	10	
Lead SEM	7.8	7.61	1.8	10	
Nickel SEM	1.7	1.59	NC	10	J
Zinc SEM	100	103	1.2	10	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-123380

### Method: 6020A Preparation: 3050B

Lab Sample ID:	MB 180-123380/1-A	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.00 g
Analysis Date:	11/04/2014 1626	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cadmium	ND		0.0035	0.050
Chromium	0.0184	J	0.0031	0.10
Lead	0.00440	J	0.0019	0.050
Selenium	ND		0.025	0.25
Silver	ND		0.0020	0.050
Beryllium	ND		0.0038	0.050
Thallium	ND		0.0010	0.050
Antimony	ND		0.0013	0.10
Nickel	ND		0.0057	0.050
Zinc	0.247	J	0.032	0.25
Copper	ND		0.017	0.10

### Method Blank - Batch: 180-123380

### Method: 6020A Preparation: 3050B

Lab Sample ID:	MB 180-123380/1-A	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.00 g
Analysis Date:	11/05/2014 2013	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.0091	0.050

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Lab Control Sample - Batch: 180-123380

Method: 6020A  
Preparation: 3050B

Lab Sample ID:	LCS 180-123380/2-A	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.01 g
Analysis Date:	11/04/2014 1629	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	2.49	2.26	91	80 - 120	
Chromium	9.95	10.2	102	80 - 120	
Lead	0.995	1.15	115	80 - 120	
Selenium	0.498	0.461	93	80 - 120	
Silver	2.49	2.39	96	80 - 120	
Beryllium	2.49	2.17	87	80 - 120	
Thallium	2.49	2.85	114	80 - 120	
Antimony	24.9	22.6	91	80 - 120	
Nickel	24.9	25.0	101	80 - 120	
Zinc	24.9	22.3	90	80 - 120	
Copper	12.4	12.3	99	80 - 120	

### Lab Control Sample - Batch: 180-123380

Method: 6020A  
Preparation: 3050B

Lab Sample ID:	LCS 180-123380/2-A	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.01 g
Analysis Date:	11/05/2014 2018	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.99	1.79	90	80 - 120	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Post Digestion Spike - Batch: 180-123380

**Method: 6020A**  
**Preparation: 3050B**

Lab Sample ID:	180-37750-4	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.92 g
Analysis Date:	11/04/2014 1745	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.78	3.69	4.21	93	75 - 125	
Chromium	33	14.7	45.1	84	75 - 125	
Lead	9.7	1.47	11.1	99	75 - 125	
Selenium	0.12 J	0.737	0.800	93	75 - 125	
Silver	0.026 J	3.69	3.82	103	75 - 125	
Beryllium	0.053 J	3.69	3.05	81	75 - 125	
Thallium	0.033 J	3.69	4.26	115	75 - 125	
Antimony	0.12 J	36.9	35.3	95	75 - 125	
Nickel	2.2	36.9	36.5	93	75 - 125	
Zinc	99	36.9	125	71	75 - 125	W
Copper	5.5	18.4	22.0	90	75 - 125	

### Post Digestion Spike - Batch: 180-123380

**Method: 6020A**  
**Preparation: 3050B**

Lab Sample ID:	180-37750-4	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.92 g
Analysis Date:	11/05/2014 2227	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.7	2.95	4.99	113	75 - 125	



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-123380**

**Method: 6020A  
Preparation: 3050B**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.02 g
Analysis Date:	11/04/2014 1738			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.07 g
Analysis Date:	11/04/2014 1741			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cadmium	88	90	75 - 125	1	20		
Chromium	117	104	75 - 125	5	20		
Lead	278	279	75 - 125	1	20	4	4
Selenium	82	65	75 - 125	21	20		F1 F2
Silver	90	90	75 - 125	3	20		
Beryllium	75	74	75 - 125	3	20		F1
Thallium	108	106	75 - 125	4	20		
Antimony	81	79	75 - 125	5	20		
Nickel	88	84	75 - 125	6	20		
Zinc	104	98	75 - 125	2	20		
Copper	88	86	75 - 125	4	20		

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-123380**

**Method: 6020A  
Preparation: 3050B**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.02 g
Analysis Date:	11/05/2014 2217			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00002.07 g
Analysis Date:	11/05/2014 2222			Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	114	105	75 - 125	7	20		

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-123380**

**Method: 6020A  
Preparation: 3050B**

MS Lab Sample ID: 180-37750-4 Units: mg/Kg  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 11/04/2014 1738  
Prep Date: 10/30/2014 1425  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 11/04/2014 1741  
Prep Date: 10/30/2014 1425  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Cadmium	0.78	3.50	3.42	3.88	3.85
Chromium	33	14.0	13.7	49.2	47.0
Lead	9.7	1.40	1.37	13.6 4	13.5 4
Selenium	0.12 J	0.701	0.684	0.694	0.561 F1 F2
Silver	0.026 J	3.50	3.42	3.20	3.11
Beryllium	0.053 J	3.50	3.42	2.68	2.58 F1
Thallium	0.033 J	3.50	3.42	3.83	3.67
Antimony	0.12 J	35.0	34.2	28.5	27.2
Nickel	2.2	35.0	34.2	33.0	30.9
Zinc	99	35.0	34.2	135	133
Copper	5.5	17.5	17.1	21.0	20.3

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-123380**

**Method: 6020A  
Preparation: 3050B**

MS Lab Sample ID: 180-37750-4 Units: mg/Kg  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 11/05/2014 2217  
Prep Date: 10/30/2014 1425  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 11/05/2014 2222  
Prep Date: 10/30/2014 1425  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	1.7	2.80	2.74	4.85	4.52

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Serial Dilution - Batch: 180-123380

**Method: 6020A**  
**Preparation: 3050B**

Lab Sample ID:	180-37750-4	Analysis Batch:	180-123945	Instrument ID:	M
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	M41104A.xml
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.92 g
Analysis Date:	11/04/2014 1725	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Cadmium	0.78	0.802	2.6	10	
Chromium	33	31.8	2.9	10	
Lead	9.7	8.83	8.7	10	
Selenium	0.12 J	ND	NC	10	
Silver	0.026 J	ND	NC	10	
Beryllium	0.053 J	0.0542	NC	10	J
Thallium	0.033 J	0.0291	NC	10	J
Antimony	0.12 J	0.0973	21	10	J V
Nickel	2.2	2.28	1.7	10	
Zinc	99	111	12	10	V
Copper	5.5	5.52	0.15	10	

### Serial Dilution - Batch: 180-123380

**Method: 6020A**  
**Preparation: 3050B**

Lab Sample ID:	180-37750-4	Analysis Batch:	180-124210	Instrument ID:	X
Client Matrix:	Sediment	Prep Batch:	180-123380	Lab File ID:	X41105A.xml
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.92 g
Analysis Date:	11/05/2014 2212	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/30/2014 1425				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Arsenic	1.7	1.60	3.2	10	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-123183

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID:	MB 180-123183/1-A	Analysis Batch:	180-123289	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.20 g
Analysis Date:	10/29/2014 1402	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0055	0.017

### Lab Control Sample - Batch: 180-123183

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID:	LCS 180-123183/2-A	Analysis Batch:	180-123289	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.20 g
Analysis Date:	10/29/2014 1404	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.208	0.216	104	80 - 120	

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-123183

**Method: 7471A**  
**Preparation: 7471A**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-123289	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.26 g
Analysis Date:	10/29/2014 1413			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-123289	Instrument ID:	K
Client Matrix:	Sediment	Prep Batch:	180-123183	Lab File ID:	R41029B.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	00001.27 g
Analysis Date:	10/29/2014 1415			Final Weight/Volume:	100 mL
Prep Date:	10/29/2014 1052				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	108	106	75 - 125	2	20		

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-123183**

**Method: 7471A  
Preparation: 7471A**

MS Lab Sample ID: 180-37750-4 Units: mg/Kg  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/29/2014 1413  
Prep Date: 10/29/2014 1052  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/29/2014 1415  
Prep Date: 10/29/2014 1052  
Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.0096	J	0.112	0.111	0.131	0.128

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Duplicate - Batch: 180-121749

**Method: 2540G**  
**Preparation: N/A**

Lab Sample ID:	180-37750-4	Analysis Batch:	180-121749	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/16/2014 1701	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	29	29	1	20	

### Duplicate - Batch: 180-121749

**Method: 2540G**  
**Preparation: N/A**

Lab Sample ID:	180-37750-8	Analysis Batch:	180-121749	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/16/2014 1701	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	42	37	13	20	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122578

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	MB 180-122578/4-A	Analysis Batch:	180-122641	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122578	Lab File ID:	102414CNA.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.00 g
Analysis Date:	10/24/2014 1034	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/24/2014 0730				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.082	0.25

### Low Level Control Sample - Batch: 180-122578

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	LLCS 180-122578/1-A	Analysis Batch:	180-122641	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122578	Lab File ID:	102414CNA.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/24/2014 1027	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/24/2014 0730				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.0500	0.0480	96	90 - 110	

### High Level Control Sample - Batch: 180-122578

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	HLCS 180-122578/2-A	Analysis Batch:	180-122641	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122578	Lab File ID:	102414CNA.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/24/2014 1029	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/24/2014 0730				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.250	0.244	97	90 - 110	

### Lab Control Sample - Batch: 180-122578

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	LCS 180-122578/3-A	Analysis Batch:	180-122641	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122578	Lab File ID:	102414CNA.csv
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	10/24/2014 1031	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/24/2014 0730				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	64.5	70.1	109	38 - 162	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122877

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	MB 180-122877/4-A	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.00 g
Analysis Date:	10/27/2014 1525	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.082	0.25

### Low Level Control Sample - Batch: 180-122877

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	LLCS 180-122877/1-A	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/27/2014 1518	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.0500	0.0471	94	90 - 110	

### High Level Control Sample - Batch: 180-122877

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	HLCS 180-122877/2-A	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/27/2014 1520	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.250	0.249	100	90 - 110	

### Lab Control Sample - Batch: 180-122877

**Method: 9014**  
**Preparation: 9010C**

Lab Sample ID:	LCS 180-122877/3-A	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	10/27/2014 1523	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	64.5	76.9	119	38 - 162	



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122877**

**Method: 9014  
Preparation: 9010C**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.98 g
Analysis Date:	10/27/2014 1533			Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-122911	Instrument ID:	SEAL2
Client Matrix:	Sediment	Prep Batch:	180-122877	Lab File ID:	102714CNB.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.05 g
Analysis Date:	10/27/2014 1536			Final Weight/Volume:	50 mL
Prep Date:	10/27/2014 1240				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cyanide, Total	103	102	75 - 125	5	20		

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122877**

**Method: 9014  
Preparation: 9010C**

MS Lab Sample ID:	180-37750-4	Units:	mg/Kg	MSD Lab Sample ID:	180-37750-4
Client Matrix:	Sediment			Client Matrix:	Sediment
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/27/2014 1533			Analysis Date:	10/27/2014 1536
Prep Date:	10/27/2014 1240			Prep Date:	10/27/2014 1240
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Cyanide, Total	ND	7.15	6.90	7.39	7.06

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-121963

Lab Sample ID: MB 180-121963/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/20/2014 1411  
Prep Date: 10/19/2014 1432  
Leach Date: N/A

Analysis Batch: 180-122072  
Prep Batch: 180-121963  
Leach Batch: N/A  
Units: mg/Kg

### Method: 9034 Preparation: AVSSEM SEM/AVS

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Acid Volatile Sulfides (AVS)-SEM/AVS	ND		3.0	15

### Method Blank - Batch: 180-121963

Lab Sample ID: MB 180-121963/1-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/20/2014 1411  
Prep Date: 10/19/2014 1432  
Leach Date: N/A

Analysis Batch: 180-122072  
Prep Batch: 180-121963  
Leach Batch: N/A  
Units: umol/g

### Method: 9034 Preparation: AVSSEM SEM/AVS

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Acid Volatile Sulfides (AVS)-SEM/AVS	ND		0.094	0.47

### Lab Control Sample - Batch: 180-121963

Lab Sample ID: LCS 180-121963/2-A  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/20/2014 1411  
Prep Date: 10/19/2014 1432  
Leach Date: N/A

Analysis Batch: 180-122072  
Prep Batch: 180-121963  
Leach Batch: N/A  
Units: mg/Kg

### Method: 9034 Preparation: AVSSEM SEM/AVS

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 10.00 g  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acid Volatile Sulfides (AVS)-SEM/AVS	96.1	94.8	99	85 - 115	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-121963**

**Method: 9034  
Preparation: AVSSEM  
SEM/AVS**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-122072	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-121963	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.94 g
Analysis Date:	10/20/2014 1411			Final Weight/Volume:	50 mL
Prep Date:	10/19/2014 1432				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-122072	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-121963	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.96 g
Analysis Date:	10/20/2014 1411			Final Weight/Volume:	50 mL
Prep Date:	10/19/2014 1432				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Acid Volatile Sulfides (AVS)-SEM/AVS	95	93	75 - 125	2	20		

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-121963**

**Method: 9034  
Preparation: AVSSEM  
SEM/AVS**

MS Lab Sample ID:	180-37750-4	Units:	mg/Kg	MSD Lab Sample ID:	180-37750-4
Client Matrix:	Sediment			Client Matrix:	Sediment
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/20/2014 1411			Analysis Date:	10/20/2014 1411
Prep Date:	10/19/2014 1432			Prep Date:	10/19/2014 1432
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acid Volatile Sulfides (AVS)-SEM/AVS	ND	137	137	130	127

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122780

**Method: 9071B**  
**Preparation: 9071B**

Lab Sample ID:	MB 180-122780/1-A	Analysis Batch:	180-122993	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-122780	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/27/2014 0623	Units:	mg/Kg	Final Weight/Volume:	30.0 g
Prep Date:	10/27/2014 0623				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
HEM	26.7	J	23	170

### Lab Control Sample - Batch: 180-122780

**Method: 9071B**  
**Preparation: 9071B**

Lab Sample ID:	LCS 180-122780/2-A	Analysis Batch:	180-122993	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-122780	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	10/27/2014 0623	Units:	mg/Kg	Final Weight/Volume:	30.0 g
Prep Date:	10/27/2014 0623				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HEM	1330	1180	89	78 - 114	

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-122780

**Method: 9071B**  
**Preparation: 9071B**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-122993	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-122780	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	10/27/2014 0623			Final Weight/Volume:	30.0 g
Prep Date:	10/27/2014 0623				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-122993	Instrument ID:	No Equipment Assigned
Client Matrix:	Sediment	Prep Batch:	180-122780	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	10/27/2014 0623			Final Weight/Volume:	30.0 g
Prep Date:	10/27/2014 0623				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
HEM	68	70	78 - 114	3	18	F1	F1

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122780**

**Method: 9071B  
Preparation: 9071B**

MS Lab Sample ID: 180-37750-4 Units: mg/Kg  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/27/2014 0623  
Prep Date: 10/27/2014 0623  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/27/2014 0623  
Prep Date: 10/27/2014 0623  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
HEM	260	1870	1870	1530 F1	1570 F1

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Method Blank - Batch: 180-122589

**Method: Lloyd Kahn**  
**Preparation: N/A**

Lab Sample ID:	MB 180-122589/3	Analysis Batch:	180-122589	Instrument ID:	FLASHEA
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	102314ax.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/23/2014 1033	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon - Duplicates	ND		89	1000

### Lab Control Sample - Batch: 180-122589

**Method: Lloyd Kahn**  
**Preparation: N/A**

Lab Sample ID:	LCS 180-122589/4	Analysis Batch:	180-122589	Instrument ID:	FLASHEA
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	102314ax.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	11.15 mg
Analysis Date:	10/23/2014 1044	Units:	mg/Kg	Final Weight/Volume:	11.15 mg
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon - Duplicates	35000	33600	96	75 - 125	

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 180-122589

**Method: Lloyd Kahn**  
**Preparation: N/A**

MS Lab Sample ID:	180-37750-4	Analysis Batch:	180-122589	Instrument ID:	FLASHEA
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	102314ax.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20.65 mg
Analysis Date:	10/23/2014 1649			Final Weight/Volume:	20.65 mg
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	180-37750-4	Analysis Batch:	180-122589	Instrument ID:	FLASHEA
Client Matrix:	Sediment	Prep Batch:	N/A	Lab File ID:	102314ax.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20.8 mg
Analysis Date:	10/23/2014 1705			Final Weight/Volume:	20.8 mg
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Total Organic Carbon - Duplicates	79	102	75 - 125	26	20		F2

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 180-122589**

**Method: Lloyd Kahn  
Preparation: N/A**

MS Lab Sample ID: 180-37750-4 Units: mg/Kg  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/23/2014 1649  
Prep Date: N/A  
Leach Date: N/A

MSD Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/23/2014 1705  
Prep Date: N/A  
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
Total Organic Carbon - Duplicates	2400	24500	25200	21800	28300	F2

**Duplicate - Batch: 180-122589**

**Method: Lloyd Kahn  
Preparation: N/A**

Lab Sample ID: 180-37750-4  
Client Matrix: Sediment  
Dilution: 1.0  
Analysis Date: 10/23/2014 1721  
Prep Date: N/A  
Leach Date: N/A

Analysis Batch: 180-122589  
Prep Batch: N/A  
Leach Batch: N/A  
Units: mg/Kg

Instrument ID: FLASHEA  
Lab File ID: 102314ax.txt  
Initial Weight/Volume: 20.25 mg  
Final Weight/Volume: 20.25 mg

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Organic Carbon - Duplicates	2400	2430	0.6	20	

## DATA REPORTING QUALIFIERS

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Section	Qualifier	Description
GC/MS VOA	B	Compound was found in the blank and sample.
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
GC Semi VOA	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits



## DATA REPORTING QUALIFIERS

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Lab Section	Qualifier	Description
Metals	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	F1	MS and/or MSD Recovery exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	F2	MS/MSD RPD exceeds control limits
	W	PS: Post-digestion spike was outside control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	V	Serial Dilution exceeds the control limits
General Chemistry	B	Compound was found in the blank and sample.
	F1	MS and/or MSD Recovery exceeds the control limits
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:180-121881</b>					
LCS 180-121882/2-A	Lab Control Sample	T	Sediment	8260C	180-121882
MB 180-121882/1-A	Method Blank	T	Sediment	8260C	180-121882
180-37750-4	SD-B01	T	Sediment	8260C	180-121882
180-37750-4MS	Matrix Spike	T	Sediment	8260C	180-121882
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	8260C	180-121882
180-37750-5	SD-B02	T	Sediment	8260C	180-121882
180-37750-6	SD-B02-FD	T	Sediment	8260C	180-121882
180-37750-7	SD-C01	T	Sediment	8260C	180-121882
180-37750-8	SD-C02	T	Sediment	8260C	180-121882
180-37750-9	SD-C03	T	Sediment	8260C	180-121882
<b>Prep Batch: 180-121882</b>					
LCS 180-121882/2-A	Lab Control Sample	T	Sediment	5030C	
MB 180-121882/1-A	Method Blank	T	Sediment	5030C	
180-37750-4	SD-B01	T	Sediment	5030C	
180-37750-4MS	Matrix Spike	T	Sediment	5030C	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	5030C	
180-37750-5	SD-B02	T	Sediment	5030C	
180-37750-6	SD-B02-FD	T	Sediment	5030C	
180-37750-7	SD-C01	T	Sediment	5030C	
180-37750-8	SD-C02	T	Sediment	5030C	
180-37750-9	SD-C03	T	Sediment	5030C	

#### Report Basis

T = Total

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 180-122598</b>					
LCS 180-122598/2-A	Lab Control Sample	T	Sediment	3541	
MB 180-122598/1-A	Method Blank	T	Sediment	3541	
180-37750-1	SD-A01	T	Sediment	3541	
180-37750-2	SD-A02	T	Sediment	3541	
180-37750-3	SD-A03	T	Sediment	3541	
180-37750-4	SD-B01	T	Sediment	3541	
180-37750-4MS	Matrix Spike	T	Sediment	3541	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	3541	
180-37750-5	SD-B02	T	Sediment	3541	
180-37750-6	SD-B02-FD	T	Sediment	3541	
180-37750-7	SD-C01	T	Sediment	3541	
180-37750-8	SD-C02	T	Sediment	3541	
180-37750-9	SD-C03	T	Sediment	3541	
<b>Analysis Batch:180-122953</b>					
LCS 180-122598/2-A	Lab Control Sample	T	Sediment	8270D LL	180-122598
MB 180-122598/1-A	Method Blank	T	Sediment	8270D LL	180-122598
180-37750-1	SD-A01	T	Sediment	8270D LL	180-122598
180-37750-2	SD-A02	T	Sediment	8270D LL	180-122598
<b>Analysis Batch:180-123272</b>					
180-37750-3	SD-A03	T	Sediment	8270D LL	180-122598
180-37750-4	SD-B01	T	Sediment	8270D LL	180-122598
180-37750-4MS	Matrix Spike	T	Sediment	8270D LL	180-122598
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	8270D LL	180-122598
<b>Analysis Batch:180-123453</b>					
180-37750-5	SD-B02	T	Sediment	8270D LL	180-122598
180-37750-6	SD-B02-FD	T	Sediment	8270D LL	180-122598
180-37750-7	SD-C01	T	Sediment	8270D LL	180-122598
180-37750-8	SD-C02	T	Sediment	8270D LL	180-122598
180-37750-9	SD-C03	T	Sediment	8270D LL	180-122598

#### Report Basis

T = Total

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC Semi VOA</b>					
<b>Prep Batch: 180-122691</b>					
LCS 180-122691/2-C	Lab Control Sample	T	Sediment	3541	
MB 180-122691/1-C	Method Blank	T	Sediment	3541	
180-37750-4	SD-B01	T	Sediment	3541	
180-37750-4MS	Matrix Spike	T	Sediment	3541	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	3541	
180-37750-5	SD-B02	T	Sediment	3541	
180-37750-6	SD-B02-FD	T	Sediment	3541	
180-37750-7	SD-C01	T	Sediment	3541	
180-37750-8	SD-C02	T	Sediment	3541	
180-37750-9	SD-C03	T	Sediment	3541	
<b>Analysis Batch:180-123252</b>					
LCS 180-122691/2-C	Lab Control Sample	T	Sediment	8082A	180-122691
MB 180-122691/1-C	Method Blank	T	Sediment	8082A	180-122691
180-37750-4	SD-B01	T	Sediment	8082A	180-122691
180-37750-4MS	Matrix Spike	T	Sediment	8082A	180-122691
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	8082A	180-122691
180-37750-5	SD-B02	T	Sediment	8082A	180-122691
180-37750-6	SD-B02-FD	T	Sediment	8082A	180-122691
180-37750-7	SD-C01	T	Sediment	8082A	180-122691
180-37750-8	SD-C02	T	Sediment	8082A	180-122691
180-37750-9	SD-C03	T	Sediment	8082A	180-122691

#### Report Basis

T = Total

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 180-121962</b>					
LCS 180-121962/2-A	Lab Control Sample	V	Sediment	AVSSEM	
MB 180-121962/1-A	Method Blank	V	Sediment	AVSSEM	
180-37750-1	SD-A01	V	Sediment	AVSSEM	
180-37750-2	SD-A02	V	Sediment	AVSSEM	
180-37750-3	SD-A03	V	Sediment	AVSSEM	
180-37750-4	SD-B01	V	Sediment	AVSSEM	
180-37750-4MS	Matrix Spike	V	Sediment	AVSSEM	
180-37750-4MSD	Matrix Spike Duplicate	V	Sediment	AVSSEM	
180-37750-5	SD-B02	V	Sediment	AVSSEM	
180-37750-6	SD-B02-FD	V	Sediment	AVSSEM	
180-37750-7	SD-C01	V	Sediment	AVSSEM	
180-37750-8	SD-C02	V	Sediment	AVSSEM	
180-37750-9	SD-C03	V	Sediment	AVSSEM	
<b>Analysis Batch:180-123073</b>					
LCS 180-121962/2-A	Lab Control Sample	V	Sediment	6010B	180-121962
MB 180-121962/1-A	Method Blank	V	Sediment	6010B	180-121962
180-37750-1	SD-A01	V	Sediment	6010B	180-121962
180-37750-2	SD-A02	V	Sediment	6010B	180-121962
180-37750-3	SD-A03	V	Sediment	6010B	180-121962
180-37750-4	SD-B01	V	Sediment	6010B	180-121962
180-37750-4MS	Matrix Spike	V	Sediment	6010B	180-121962
180-37750-4MSD	Matrix Spike Duplicate	V	Sediment	6010B	180-121962
180-37750-5	SD-B02	V	Sediment	6010B	180-121962
180-37750-6	SD-B02-FD	V	Sediment	6010B	180-121962
180-37750-7	SD-C01	V	Sediment	6010B	180-121962
180-37750-8	SD-C02	V	Sediment	6010B	180-121962
180-37750-9	SD-C03	V	Sediment	6010B	180-121962
<b>Prep Batch: 180-123183</b>					
LCS 180-123183/2-A	Lab Control Sample	T	Sediment	7471A	
MB 180-123183/1-A	Method Blank	T	Sediment	7471A	
180-37750-1	SD-A01	T	Sediment	7471A	
180-37750-2	SD-A02	T	Sediment	7471A	
180-37750-3	SD-A03	T	Sediment	7471A	
180-37750-4	SD-B01	T	Sediment	7471A	
180-37750-4MS	Matrix Spike	T	Sediment	7471A	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	7471A	
180-37750-5	SD-B02	T	Sediment	7471A	
180-37750-6	SD-B02-FD	T	Sediment	7471A	
180-37750-7	SD-C01	T	Sediment	7471A	
180-37750-8	SD-C02	T	Sediment	7471A	
180-37750-9	SD-C03	T	Sediment	7471A	

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Analysis Batch:180-123209</b>					
180-37750-5	SD-B02	V	Sediment	6010B	180-121962
180-37750-6	SD-B02-FD	V	Sediment	6010B	180-121962
180-37750-9	SD-C03	V	Sediment	6010B	180-121962
<b>Analysis Batch:180-123289</b>					
LCS 180-123183/2-A	Lab Control Sample	T	Sediment	7471A	180-123183
MB 180-123183/1-A	Method Blank	T	Sediment	7471A	180-123183
180-37750-1	SD-A01	T	Sediment	7471A	180-123183
180-37750-2	SD-A02	T	Sediment	7471A	180-123183
180-37750-3	SD-A03	T	Sediment	7471A	180-123183
180-37750-4	SD-B01	T	Sediment	7471A	180-123183
180-37750-4MS	Matrix Spike	T	Sediment	7471A	180-123183
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	7471A	180-123183
180-37750-5	SD-B02	T	Sediment	7471A	180-123183
180-37750-6	SD-B02-FD	T	Sediment	7471A	180-123183
180-37750-7	SD-C01	T	Sediment	7471A	180-123183
180-37750-8	SD-C02	T	Sediment	7471A	180-123183
180-37750-9	SD-C03	T	Sediment	7471A	180-123183
<b>Analysis Batch:180-123344</b>					
180-37750-1	SD-A01	V	Sediment	SEM	
180-37750-2	SD-A02	V	Sediment	SEM	
180-37750-3	SD-A03	V	Sediment	SEM	
180-37750-4	SD-B01	V	Sediment	SEM	
180-37750-5	SD-B02	V	Sediment	SEM	
180-37750-6	SD-B02-FD	V	Sediment	SEM	
180-37750-7	SD-C01	V	Sediment	SEM	
180-37750-8	SD-C02	V	Sediment	SEM	
180-37750-9	SD-C03	V	Sediment	SEM	
<b>Prep Batch: 180-123380</b>					
LCS 180-123380/2-A	Lab Control Sample	T	Sediment	3050B	
MB 180-123380/1-A	Method Blank	T	Sediment	3050B	
180-37750-1	SD-A01	T	Sediment	3050B	
180-37750-2	SD-A02	T	Sediment	3050B	
180-37750-3	SD-A03	T	Sediment	3050B	
180-37750-4	SD-B01	T	Sediment	3050B	
180-37750-4MS	Matrix Spike	T	Sediment	3050B	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	3050B	
180-37750-5	SD-B02	T	Sediment	3050B	
180-37750-6	SD-B02-FD	T	Sediment	3050B	
180-37750-7	SD-C01	T	Sediment	3050B	
180-37750-8	SD-C02	T	Sediment	3050B	
180-37750-9	SD-C03	T	Sediment	3050B	

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## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Analysis Batch:180-123945</b>					
LCS 180-123380/2-A	Lab Control Sample	T	Sediment	6020A	180-123380
MB 180-123380/1-A	Method Blank	T	Sediment	6020A	180-123380
180-37750-1	SD-A01	T	Sediment	6020A	180-123380
180-37750-2	SD-A02	T	Sediment	6020A	180-123380
180-37750-3	SD-A03	T	Sediment	6020A	180-123380
180-37750-4	SD-B01	T	Sediment	6020A	180-123380
180-37750-4MS	Matrix Spike	T	Sediment	6020A	180-123380
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	6020A	180-123380
180-37750-5	SD-B02	T	Sediment	6020A	180-123380
180-37750-6	SD-B02-FD	T	Sediment	6020A	180-123380
180-37750-7	SD-C01	T	Sediment	6020A	180-123380
180-37750-8	SD-C02	T	Sediment	6020A	180-123380
180-37750-9	SD-C03	T	Sediment	6020A	180-123380
<b>Analysis Batch:180-124210</b>					
LCS 180-123380/2-A	Lab Control Sample	T	Sediment	6020A	180-123380
MB 180-123380/1-A	Method Blank	T	Sediment	6020A	180-123380
180-37750-1	SD-A01	T	Sediment	6020A	180-123380
180-37750-2	SD-A02	T	Sediment	6020A	180-123380
180-37750-3	SD-A03	T	Sediment	6020A	180-123380
180-37750-4	SD-B01	T	Sediment	6020A	180-123380
180-37750-4MS	Matrix Spike	T	Sediment	6020A	180-123380
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	6020A	180-123380
180-37750-5	SD-B02	T	Sediment	6020A	180-123380
180-37750-6	SD-B02-FD	T	Sediment	6020A	180-123380
180-37750-7	SD-C01	T	Sediment	6020A	180-123380
180-37750-8	SD-C02	T	Sediment	6020A	180-123380
180-37750-9	SD-C03	T	Sediment	6020A	180-123380

#### Report Basis

V = SEM/AVS

T = Total

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:180-121749</b>					
180-37750-1	SD-A01	T	Sediment	2540G	
180-37750-2	SD-A02	T	Sediment	2540G	
180-37750-3	SD-A03	T	Sediment	2540G	
180-37750-4	SD-B01	T	Sediment	2540G	
180-37750-4DU	Duplicate	T	Sediment	2540G	
180-37750-5	SD-B02	T	Sediment	2540G	
180-37750-6	SD-B02-FD	T	Sediment	2540G	
180-37750-7	SD-C01	T	Sediment	2540G	
180-37750-8	SD-C02	T	Sediment	2540G	
180-37750-8DU	Duplicate	T	Sediment	2540G	
180-37750-9	SD-C03	T	Sediment	2540G	
<b>Prep Batch: 180-121963</b>					
LCS 180-121963/2-A	Lab Control Sample	V	Sediment	AVSSEM	
MB 180-121963/1-A	Method Blank	V	Sediment	AVSSEM	
180-37750-1	SD-A01	V	Sediment	AVSSEM	
180-37750-2	SD-A02	V	Sediment	AVSSEM	
180-37750-3	SD-A03	V	Sediment	AVSSEM	
180-37750-4	SD-B01	V	Sediment	AVSSEM	
180-37750-4MS	Matrix Spike	V	Sediment	AVSSEM	
180-37750-4MSD	Matrix Spike Duplicate	V	Sediment	AVSSEM	
180-37750-5	SD-B02	V	Sediment	AVSSEM	
180-37750-6	SD-B02-FD	V	Sediment	AVSSEM	
180-37750-7	SD-C01	V	Sediment	AVSSEM	
180-37750-8	SD-C02	V	Sediment	AVSSEM	
180-37750-9	SD-C03	V	Sediment	AVSSEM	
<b>Analysis Batch:180-122072</b>					
LCS 180-121963/2-A	Lab Control Sample	V	Sediment	9034	180-121963
MB 180-121963/1-A	Method Blank	V	Sediment	9034	180-121963
180-37750-1	SD-A01	V	Sediment	9034	180-121963
180-37750-2	SD-A02	V	Sediment	9034	180-121963
180-37750-3	SD-A03	V	Sediment	9034	180-121963
180-37750-4	SD-B01	V	Sediment	9034	180-121963
180-37750-4MS	Matrix Spike	V	Sediment	9034	180-121963
180-37750-4MSD	Matrix Spike Duplicate	V	Sediment	9034	180-121963
180-37750-5	SD-B02	V	Sediment	9034	180-121963
180-37750-6	SD-B02-FD	V	Sediment	9034	180-121963
180-37750-7	SD-C01	V	Sediment	9034	180-121963
180-37750-8	SD-C02	V	Sediment	9034	180-121963
180-37750-9	SD-C03	V	Sediment	9034	180-121963



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Prep Batch: 180-122578</b>					
HLCS 180-122578/2-A	High Level Control Sample	T	Sediment	9010C	
LCS 180-122578/3-A	Lab Control Sample	T	Sediment	9010C	
LLCS 180-122578/1-A	Low Level Control Sample	T	Sediment	9010C	
MB 180-122578/4-A	Method Blank	T	Sediment	9010C	
180-37750-2	SD-A02	T	Sediment	9010C	
180-37750-3	SD-A03	T	Sediment	9010C	
180-37750-5	SD-B02	T	Sediment	9010C	
180-37750-6	SD-B02-FD	T	Sediment	9010C	
180-37750-7	SD-C01	T	Sediment	9010C	
<b>Analysis Batch:180-122589</b>					
LCS 180-122589/4	Lab Control Sample	T	Sediment	Lloyd Kahn	
MB 180-122589/3	Method Blank	T	Sediment	Lloyd Kahn	
180-37750-1	SD-A01	T	Sediment	Lloyd Kahn	
180-37750-2	SD-A02	T	Sediment	Lloyd Kahn	
180-37750-3	SD-A03	T	Sediment	Lloyd Kahn	
180-37750-4	SD-B01	T	Sediment	Lloyd Kahn	
180-37750-4DU	Duplicate	T	Sediment	Lloyd Kahn	
180-37750-4MS	Matrix Spike	T	Sediment	Lloyd Kahn	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	Lloyd Kahn	
180-37750-5	SD-B02	T	Sediment	Lloyd Kahn	
180-37750-6	SD-B02-FD	T	Sediment	Lloyd Kahn	
180-37750-7	SD-C01	T	Sediment	Lloyd Kahn	
180-37750-8	SD-C02	T	Sediment	Lloyd Kahn	
180-37750-9	SD-C03	T	Sediment	Lloyd Kahn	
<b>Analysis Batch:180-122641</b>					
HLCS 180-122578/2-A	High Level Control Sample	T	Sediment	9014	180-122578
LCS 180-122578/3-A	Lab Control Sample	T	Sediment	9014	180-122578
LLCS 180-122578/1-A	Low Level Control Sample	T	Sediment	9014	180-122578
MB 180-122578/4-A	Method Blank	T	Sediment	9014	180-122578
180-37750-2	SD-A02	T	Sediment	9014	180-122578
180-37750-3	SD-A03	T	Sediment	9014	180-122578
180-37750-5	SD-B02	T	Sediment	9014	180-122578
180-37750-6	SD-B02-FD	T	Sediment	9014	180-122578
180-37750-7	SD-C01	T	Sediment	9014	180-122578

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Prep Batch: 180-122780</b>					
LCS 180-122780/2-A	Lab Control Sample	T	Sediment	9071B	
MB 180-122780/1-A	Method Blank	T	Sediment	9071B	
180-37750-4	SD-B01	T	Sediment	9071B	
180-37750-4MS	Matrix Spike	T	Sediment	9071B	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	9071B	
180-37750-5	SD-B02	T	Sediment	9071B	
180-37750-6	SD-B02-FD	T	Sediment	9071B	
180-37750-7	SD-C01	T	Sediment	9071B	
180-37750-8	SD-C02	T	Sediment	9071B	
180-37750-9	SD-C03	T	Sediment	9071B	
<b>Prep Batch: 180-122877</b>					
HLCS 180-122877/2-A	High Level Control Sample	T	Sediment	9010C	
LCS 180-122877/3-A	Lab Control Sample	T	Sediment	9010C	
LLCS 180-122877/1-A	Low Level Control Sample	T	Sediment	9010C	
MB 180-122877/4-A	Method Blank	T	Sediment	9010C	
180-37750-1	SD-A01	T	Sediment	9010C	
180-37750-4	SD-B01	T	Sediment	9010C	
180-37750-4MS	Matrix Spike	T	Sediment	9010C	
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	9010C	
180-37750-8	SD-C02	T	Sediment	9010C	
180-37750-9	SD-C03	T	Sediment	9010C	
<b>Analysis Batch:180-122911</b>					
HLCS 180-122877/2-A	High Level Control Sample	T	Sediment	9014	180-122877
LCS 180-122877/3-A	Lab Control Sample	T	Sediment	9014	180-122877
LLCS 180-122877/1-A	Low Level Control Sample	T	Sediment	9014	180-122877
MB 180-122877/4-A	Method Blank	T	Sediment	9014	180-122877
180-37750-1	SD-A01	T	Sediment	9014	180-122877
180-37750-4	SD-B01	T	Sediment	9014	180-122877
180-37750-4MS	Matrix Spike	T	Sediment	9014	180-122877
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	9014	180-122877
180-37750-8	SD-C02	T	Sediment	9014	180-122877
180-37750-9	SD-C03	T	Sediment	9014	180-122877

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:180-122993</b>					
LCS 180-122780/2-A	Lab Control Sample	T	Sediment	9071B	180-122780
MB 180-122780/1-A	Method Blank	T	Sediment	9071B	180-122780
180-37750-4	SD-B01	T	Sediment	9071B	180-122780
180-37750-4MS	Matrix Spike	T	Sediment	9071B	180-122780
180-37750-4MSD	Matrix Spike Duplicate	T	Sediment	9071B	180-122780
180-37750-5	SD-B02	T	Sediment	9071B	180-122780
180-37750-6	SD-B02-FD	T	Sediment	9071B	180-122780
180-37750-7	SD-C01	T	Sediment	9071B	180-122780
180-37750-8	SD-C02	T	Sediment	9071B	180-122780
180-37750-9	SD-C03	T	Sediment	9071B	180-122780

#### Report Basis

V = SEM/AVS

T = Total

### Geotechnical

<b>Analysis Batch:200-79574</b>					
180-37750-4	SD-B01	T	Sediment	D2216-90	
180-37750-5	SD-B02	T	Sediment	D2216-90	
<b>Analysis Batch:200-79737</b>					
180-37750-4	SD-B01	T	Sediment	D422	
180-37750-5	SD-B02	T	Sediment	D422	

#### Report Basis

T = Total

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-1

Client ID: SD-A01

Sample Date/Time: 10/13/2014 11:45

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3541	180-37750-A-1-A		180-122953	180-122598	10/24/2014 03:10	4	TAL PIT	KLG
A:8270D LL	180-37750-A-1-A		180-122953	180-122598	10/28/2014 23:26	4	TAL PIT	VVP
P:AVSSEM	180-37750-B-1-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-1-A		180-123073	180-121962	10/28/2014 18:27	1	TAL PIT	RJG
P:3050B	180-37750-B-1-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-1-E		180-123945	180-123380	11/04/2014 17:10	1	TAL PIT	CNF
P:3050B	180-37750-B-1-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-1-E		180-124210	180-123380	11/05/2014 21:22	1	TAL PIT	WTR
P:7471A	180-37750-B-1-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-1-D		180-123289	180-123183	10/29/2014 14:06	1	TAL PIT	LEM
A:SEM	180-37750-A-1		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-1		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-1-C		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-B-1-C		180-122911	180-122877	10/27/2014 15:29	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-1-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-1-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
A:Lloyd Kahn	180-37750-B-1		180-122589		10/23/2014 14:17	1	TAL PIT	JDD

Lab ID: 180-37750-2

Client ID: SD-A02

Sample Date/Time: 10/13/2014 11:15

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3541	180-37750-A-2-A		180-122953	180-122598	10/24/2014 03:10	5	TAL PIT	KLG
A:8270D LL	180-37750-A-2-A		180-122953	180-122598	10/28/2014 23:54	5	TAL PIT	VVP
P:AVSSEM	180-37750-B-2-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-2-A		180-123073	180-121962	10/28/2014 18:32	1	TAL PIT	RJG
P:3050B	180-37750-B-2-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-2-E		180-123945	180-123380	11/04/2014 17:14	1	TAL PIT	CNF
P:3050B	180-37750-B-2-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-2-E		180-124210	180-123380	11/05/2014 21:27	1	TAL PIT	WTR
P:7471A	180-37750-B-2-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-2-D		180-123289	180-123183	10/29/2014 14:08	1	TAL PIT	LEM
A:SEM	180-37750-A-2		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-2		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-2-C		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	180-37750-B-2-C		180-122641	180-122578	10/24/2014 11:23	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-2-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-2-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
A:Lloyd Kahn	180-37750-B-2		180-122589		10/23/2014 14:32	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-3

Client ID: SD-A03

Sample Date/Time: 10/13/2014 10:20

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3541	180-37750-A-3-A		180-123272	180-122598	10/24/2014 03:10	20	TAL PIT	KLK
A:8270D LL	180-37750-A-3-A		180-123272	180-122598	10/30/2014 19:12	20	TAL PIT	VVP
P:AVSSEM	180-37750-B-3-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-3-A		180-123073	180-121962	10/28/2014 18:37	1	TAL PIT	RJG
P:3050B	180-37750-B-3-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-3-E		180-123945	180-123380	11/04/2014 17:18	1	TAL PIT	CNF
P:3050B	180-37750-B-3-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-3-E		180-124210	180-123380	11/05/2014 21:32	1	TAL PIT	WTR
P:7471A	180-37750-B-3-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-3-D		180-123289	180-123183	10/29/2014 14:10	1	TAL PIT	LEM
A:SEM	180-37750-A-3		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-3		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-3-C		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	180-37750-B-3-C		180-122641	180-122578	10/24/2014 11:25	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-3-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-3-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
A:Lloyd Kahn	180-37750-B-3		180-122589		10/23/2014 14:48	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-4

Client ID: SD-B01

Sample Date/Time: 10/13/2014 12:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-4-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-4-A		180-121881	180-121882	10/17/2014 21:48	1	TAL PIT	KLG
P:3541	180-37750-C-4-D		180-123272	180-122598	10/24/2014 03:10	4	TAL PIT	KLG
A:8270D LL	180-37750-C-4-D		180-123272	180-122598	10/30/2014 19:40	4	TAL PIT	VVP
P:3541	180-37750-C-4-H		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-C-4-H		180-123252	180-122691	10/30/2014 11:30	10	TAL PIT	JMO
P:AVSSEM	180-37750-D-4-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-D-4-A		180-123073	180-121962	10/28/2014 18:42	1	TAL PIT	RJG
P:3050B	180-37750-D-4-G		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-4-G		180-123945	180-123380	11/04/2014 17:21	1	TAL PIT	CNF
P:3050B	180-37750-D-4-G		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-4-G		180-124210	180-123380	11/05/2014 22:07	1	TAL PIT	WTR
P:7471A	180-37750-D-4-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-D-4-D		180-123289	180-123183	10/29/2014 14:11	1	TAL PIT	LEM
A:SEM	180-37750-A-4		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-C-4		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-D-4-C		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-D-4-C		180-122911	180-122877	10/27/2014 15:31	1	TAL PIT	PGJ
P:AVSSEM	180-37750-D-4-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-D-4-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-C-4-F		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-C-4-F		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-C-4		180-122589		10/23/2014 16:33	1	TAL PIT	JDD
A:D2216-90	180-37750-A-4		200-79574		10/29/2014 22:22	1	TAL BUR	MAP
A:D422	180-37750-A-4		200-79737		10/29/2014 22:32	1	TAL BUR	SML

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-4

Client ID: SD-B01

Sample Date/Time: 10/13/2014 12:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-4-B MS		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-4-B MS		180-121881	180-121882	10/17/2014 22:33	1	TAL PIT	KLG
P:3541	180-37750-A-4-A MS		180-123272	180-122598	10/24/2014 03:10	4	TAL PIT	KLG
A:8270D LL	180-37750-A-4-A MS		180-123272	180-122598	10/30/2014 20:08	4	TAL PIT	VVP
P:3541	180-37750-A-4-I MS		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-4-I MS		180-123252	180-122691	10/30/2014 11:49	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-4-A MS		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-4-A MS		180-123073	180-121962	10/28/2014 18:52	1	TAL PIT	RJG
P:3050B	180-37750-B-4-G MS		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-4-G MS		180-123945	180-123380	11/04/2014 17:38	1	TAL PIT	CNF
P:3050B	180-37750-B-4-G MS		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-4-G MS		180-124210	180-123380	11/05/2014 22:17	1	TAL PIT	WTR
P:7471A	180-37750-D-4-E MS		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-D-4-E MS		180-123289	180-123183	10/29/2014 14:13	1	TAL PIT	LEM
P:9010C	180-37750-B-4-E MS		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-B-4-E MS		180-122911	180-122877	10/27/2014 15:33	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-4-C MS		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-4-C MS		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-4-E MS		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-4-E MS		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-A-4 MS		180-122589		10/23/2014 16:49	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-4

Client ID: SD-B01

Sample Date/Time: 10/13/2014 12:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-4-C MSD		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-4-C MSD		180-121881	180-121882	10/17/2014 22:56	1	TAL PIT	KLG
P:3541	180-37750-A-4-B MSD		180-123272	180-122598	10/24/2014 03:10	4	TAL PIT	KLG
A:8270D LL	180-37750-A-4-B MSD		180-123272	180-122598	10/30/2014 20:37	4	TAL PIT	VVP
P:3541	180-37750-A-4-J MSD		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-4-J MSD		180-123252	180-122691	10/30/2014 12:09	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-4-B MSD		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-4-B MSD		180-123073	180-121962	10/28/2014 18:57	1	TAL PIT	RJG
P:3050B	180-37750-B-4-H MSD		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-4-H MSD		180-123945	180-123380	11/04/2014 17:41	1	TAL PIT	CNF
P:3050B	180-37750-B-4-H MSD		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-4-H MSD		180-124210	180-123380	11/05/2014 22:22	1	TAL PIT	WTR
P:7471A	180-37750-D-4-F MSD		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-D-4-F MSD		180-123289	180-123183	10/29/2014 14:15	1	TAL PIT	LEM
P:9010C	180-37750-B-4-F MSD		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-B-4-F MSD		180-122911	180-122877	10/27/2014 15:36	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-4-D MSD		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-4-D MSD		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-4-F MSD		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-4-F MSD		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-B-4 MSD		180-122589		10/23/2014 17:05	1	TAL PIT	JDD

Lab ID: 180-37750-4 DU

Client ID: SD-B01

Sample Date/Time: 10/13/2014 12:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:2540G	180-37750-C-4 DU		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
A:Lloyd Kahn	180-37750-C-4 DU		180-122589		10/23/2014 17:21	1	TAL PIT	JDD



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-4 SD

Client ID: SD-B01

Sample Date/Time: 10/13/2014 12:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:AVSSEM	180-37750-D-4-A SD ^5		180-123073	180-121962	10/19/2014 14:29	5	TAL PIT	MEB
A:6010B	180-37750-D-4-A SD ^5		180-123073	180-121962	10/28/2014 18:47	5	TAL PIT	RJG
P:3050B	180-37750-D-4-G SD ^5		180-123945	180-123380	10/30/2014 14:25	5	TAL PIT	RJR
A:6020A	180-37750-D-4-G SD ^5		180-123945	180-123380	11/04/2014 17:25	5	TAL PIT	CNF
P:3050B	180-37750-D-4-G PDS		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-4-G PDS		180-123945	180-123380	11/04/2014 17:45	1	TAL PIT	CNF
P:3050B	180-37750-D-4-G SD ^5		180-124210	180-123380	10/30/2014 14:25	5	TAL PIT	RJR
A:6020A	180-37750-D-4-G SD ^5		180-124210	180-123380	11/05/2014 22:12	5	TAL PIT	WTR
P:3050B	180-37750-D-4-G PDS		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-4-G PDS		180-124210	180-123380	11/05/2014 22:27	1	TAL PIT	WTR

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-5

Client ID: SD-B02

Sample Date/Time: 10/13/2014 12:10

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-E-5-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-E-5-A		180-121881	180-121882	10/18/2014 01:34	1	TAL PIT	KLG
P:3541	180-37750-C-5-A		180-123453	180-122598	10/24/2014 03:10	25	TAL PIT	KLG
A:8270D LL	180-37750-C-5-A		180-123453	180-122598	10/31/2014 21:30	25	TAL PIT	VVP
P:3541	180-37750-C-5-E		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-C-5-E		180-123252	180-122691	10/30/2014 12:28	10	TAL PIT	JMO
P:AVSSEM	180-37750-D-5-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-D-5-A		180-123073	180-121962	10/28/2014 19:02	1	TAL PIT	RJG
P:AVSSEM	180-37750-D-5-A ^2		180-123209	180-121962	10/19/2014 14:29	2	TAL PIT	MEB
A:6010B	180-37750-D-5-A ^2		180-123209	180-121962	10/29/2014 13:09	2	TAL PIT	RJG
P:3050B	180-37750-D-5-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-5-E		180-123945	180-123380	11/04/2014 17:48	1	TAL PIT	CNF
P:3050B	180-37750-D-5-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-D-5-E		180-124210	180-123380	11/05/2014 21:37	1	TAL PIT	WTR
P:7471A	180-37750-D-5-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-D-5-D		180-123289	180-123183	10/29/2014 14:21	1	TAL PIT	LEM
A:SEM	180-37750-A-5		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-C-5		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-D-5-C		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	180-37750-D-5-C		180-122641	180-122578	10/24/2014 11:26	1	TAL PIT	PGJ
P:AVSSEM	180-37750-D-5-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-D-5-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-C-5-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-C-5-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-D-5		180-122589		10/23/2014 15:04	1	TAL PIT	JDD
A:D2216-90	180-37750-A-5		200-79574		10/29/2014 22:22	1	TAL BUR	MAP
A:D422	180-37750-A-5		200-79737		10/29/2014 22:34	1	TAL BUR	SML

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-6

Client ID: SD-B02-FD

Sample Date/Time: 10/13/2014 12:10

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-6-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-6-A		180-121881	180-121882	10/18/2014 01:56	1	TAL PIT	KLG
P:3541	180-37750-A-6-A		180-123453	180-122598	10/24/2014 03:10	25	TAL PIT	KLG
A:8270D LL	180-37750-A-6-A		180-123453	180-122598	10/31/2014 21:56	25	TAL PIT	VVP
P:3541	180-37750-A-6-E		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-6-E		180-123252	180-122691	10/30/2014 12:47	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-6-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-6-A		180-123073	180-121962	10/28/2014 19:17	1	TAL PIT	RJG
P:AVSSEM	180-37750-B-6-A ^2		180-123209	180-121962	10/19/2014 14:29	2	TAL PIT	MEB
A:6010B	180-37750-B-6-A ^2		180-123209	180-121962	10/29/2014 13:14	2	TAL PIT	RJG
P:3050B	180-37750-B-6-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-6-E		180-123945	180-123380	11/04/2014 17:52	1	TAL PIT	CNF
P:3050B	180-37750-B-6-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-6-E		180-124210	180-123380	11/05/2014 21:57	1	TAL PIT	WTR
P:7471A	180-37750-B-6-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-6-D		180-123289	180-123183	10/29/2014 14:22	1	TAL PIT	LEM
A:SEM	180-37750-A-6		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-6		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-6-C		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	180-37750-B-6-C		180-122641	180-122578	10/24/2014 11:28	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-6-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-6-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-6-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-6-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-B-6		180-122589		10/23/2014 15:20	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-7

Client ID: SD-C01

Sample Date/Time: 10/13/2014 15:30

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-7-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-7-A		180-121881	180-121882	10/18/2014 02:19	1	TAL PIT	KLG
P:3541	180-37750-A-7-A		180-123453	180-122598	10/24/2014 03:10	10	TAL PIT	KLG
A:8270D LL	180-37750-A-7-A		180-123453	180-122598	10/31/2014 22:22	10	TAL PIT	VVP
P:3541	180-37750-A-7-E		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-7-E		180-123252	180-122691	10/30/2014 13:06	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-7-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-7-A		180-123073	180-121962	10/28/2014 19:22	1	TAL PIT	RJG
P:3050B	180-37750-B-7-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-7-E		180-123945	180-123380	11/04/2014 17:55	1	TAL PIT	CNF
P:3050B	180-37750-B-7-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-7-E		180-124210	180-123380	11/05/2014 22:02	1	TAL PIT	WTR
P:7471A	180-37750-B-7-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-7-D		180-123289	180-123183	10/29/2014 14:24	1	TAL PIT	LEM
A:SEM	180-37750-A-7		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-7		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-7-C		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	180-37750-B-7-C		180-122641	180-122578	10/24/2014 11:30	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-7-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-7-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-7-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-7-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-B-7		180-122589		10/23/2014 15:36	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-8

Client ID: SD-C02

Sample Date/Time: 10/13/2014 14:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-8-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-8-A		180-121881	180-121882	10/18/2014 02:42	1	TAL PIT	KLG
P:3541	180-37750-A-8-A		180-123453	180-122598	10/24/2014 03:10	25	TAL PIT	KLG
A:8270D LL	180-37750-A-8-A		180-123453	180-122598	10/31/2014 22:48	25	TAL PIT	VVP
P:3541	180-37750-A-8-E		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-8-E		180-123252	180-122691	10/30/2014 13:25	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-8-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-8-A		180-123073	180-121962	10/28/2014 19:27	1	TAL PIT	RJG
P:3050B	180-37750-B-8-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-8-E		180-123945	180-123380	11/04/2014 17:59	1	TAL PIT	CNF
P:3050B	180-37750-B-8-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-8-E		180-124210	180-123380	11/05/2014 22:32	1	TAL PIT	WTR
P:7471A	180-37750-B-8-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-8-D		180-123289	180-123183	10/29/2014 14:26	1	TAL PIT	LEM
A:SEM	180-37750-A-8		180-123344		10/30/2014 11:12	1	TAL PIT	MM1
A:2540G	180-37750-A-8		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-8-C		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-B-8-C		180-122911	180-122877	10/27/2014 15:38	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-8-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-8-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-8-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-8-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-B-8		180-122589		10/23/2014 16:02	1	TAL PIT	JDD

Lab ID: 180-37750-8 DU

Client ID: SD-C02

Sample Date/Time: 10/13/2014 14:50

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:2540G	180-37750-A-8 DU		180-121749		10/16/2014 17:01	1	TAL PIT	AB1

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: 180-37750-9

Client ID: SD-C03

Sample Date/Time: 10/13/2014 14:30

Received Date/Time: 10/15/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	180-37750-C-9-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	180-37750-C-9-A		180-121881	180-121882	10/18/2014 03:04	1	TAL PIT	KLG
P:3541	180-37750-A-9-A		180-123453	180-122598	10/24/2014 03:10	25	TAL PIT	KLG
A:8270D LL	180-37750-A-9-A		180-123453	180-122598	10/31/2014 23:14	25	TAL PIT	VVP
P:3541	180-37750-A-9-E		180-123252	180-122691	10/25/2014 03:15	10	TAL PIT	KLG
A:8082A	180-37750-A-9-E		180-123252	180-122691	10/30/2014 13:44	10	TAL PIT	JMO
P:AVSSEM	180-37750-B-9-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	180-37750-B-9-A		180-123073	180-121962	10/28/2014 19:32	1	TAL PIT	RJG
P:AVSSEM	180-37750-B-9-A ^2		180-123209	180-121962	10/19/2014 14:29	2	TAL PIT	MEB
A:6010B	180-37750-B-9-A ^2		180-123209	180-121962	10/29/2014 13:19	2	TAL PIT	RJG
P:3050B	180-37750-B-9-E		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-9-E		180-123945	180-123380	11/04/2014 18:02	1	TAL PIT	CNF
P:3050B	180-37750-B-9-E		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	180-37750-B-9-E		180-124210	180-123380	11/05/2014 22:37	1	TAL PIT	WTR
P:7471A	180-37750-B-9-D		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	180-37750-B-9-D		180-123289	180-123183	10/29/2014 14:28	1	TAL PIT	LEM
A:SEM	180-37750-A-9		180-123344		10/30/2014 11:14	1	TAL PIT	MM1
A:2540G	180-37750-A-9		180-121749		10/16/2014 17:01	1	TAL PIT	AB1
P:9010C	180-37750-B-9-C		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	180-37750-B-9-C		180-122911	180-122877	10/27/2014 15:44	1	TAL PIT	PGJ
P:AVSSEM	180-37750-B-9-B		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	180-37750-B-9-B		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	180-37750-A-9-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	180-37750-A-9-C		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	180-37750-B-9		180-122589		10/23/2014 16:18	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 180-121882/1-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLG
A:8260C	MB 180-121882/1-A		180-121881	180-121882	10/17/2014 21:25	1	TAL PIT	KLG
P:3541	MB 180-122598/1-A		180-122953	180-122598	10/24/2014 03:10	1	TAL PIT	KLG
A:8270D LL	MB 180-122598/1-A		180-122953	180-122598	10/28/2014 13:21	1	TAL PIT	VVP
P:3541	MB 180-122691/1-C		180-123252	180-122691	10/25/2014 03:15	1	TAL PIT	KLG
A:8082A	MB 180-122691/1-C		180-123252	180-122691	10/30/2014 11:11	1	TAL PIT	JMO
P:AVSSEM	MB 180-121962/1-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	MB 180-121962/1-A		180-123073	180-121962	10/28/2014 18:16	1	TAL PIT	RJG
P:3050B	MB 180-123380/1-A		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	MB 180-123380/1-A		180-123945	180-123380	11/04/2014 16:26	1	TAL PIT	CNF
P:3050B	MB 180-123380/1-A		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	MB 180-123380/1-A		180-124210	180-123380	11/05/2014 20:13	1	TAL PIT	WTR
P:7471A	MB 180-123183/1-A		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	MB 180-123183/1-A		180-123289	180-123183	10/29/2014 14:02	1	TAL PIT	LEM
P:9010C	MB 180-122578/4-A		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	MB 180-122578/4-A		180-122641	180-122578	10/24/2014 10:34	1	TAL PIT	PGJ
P:9010C	MB 180-122877/4-A		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	MB 180-122877/4-A		180-122911	180-122877	10/27/2014 15:25	1	TAL PIT	PGJ
P:AVSSEM	MB 180-121963/1-A		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	MB 180-121963/1-A		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	MB 180-122780/1-A		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	MB 180-122780/1-A		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	MB 180-122589/3		180-122589		10/23/2014 10:33	1	TAL PIT	JDD

## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 180-121882/2-A		180-121881	180-121882	10/17/2014 19:39	1	TAL PIT	KLK
A:8260C	LCS 180-121882/2-A		180-121881	180-121882	10/17/2014 22:10	1	TAL PIT	KLK
P:3541	LCS 180-122598/2-A		180-122953	180-122598	10/24/2014 03:10	1	TAL PIT	KLK
A:8270D LL	LCS 180-122598/2-A		180-122953	180-122598	10/28/2014 14:18	1	TAL PIT	VVP
P:3541	LCS 180-122691/2-C		180-123252	180-122691	10/25/2014 03:15	1	TAL PIT	KLK
A:8082A	LCS 180-122691/2-C		180-123252	180-122691	10/30/2014 16:19	1	TAL PIT	JMO
P:AVSSEM	LCS 180-121962/2-A		180-123073	180-121962	10/19/2014 14:29	1	TAL PIT	MEB
A:6010B	LCS 180-121962/2-A		180-123073	180-121962	10/28/2014 18:22	1	TAL PIT	RJG
P:3050B	LCS 180-123380/2-A		180-123945	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	LCS 180-123380/2-A		180-123945	180-123380	11/04/2014 16:29	1	TAL PIT	CNF
P:3050B	LCS 180-123380/2-A		180-124210	180-123380	10/30/2014 14:25	1	TAL PIT	RJR
A:6020A	LCS 180-123380/2-A		180-124210	180-123380	11/05/2014 20:18	1	TAL PIT	WTR
P:7471A	LCS 180-123183/2-A		180-123289	180-123183	10/29/2014 10:52	1	TAL PIT	LEM
A:7471A	LCS 180-123183/2-A		180-123289	180-123183	10/29/2014 14:04	1	TAL PIT	LEM
P:9010C	LCS 180-122578/3-A		180-122641	180-122578	10/24/2014 07:30	10	TAL PIT	PGJ
A:9014	LCS 180-122578/3-A		180-122641	180-122578	10/24/2014 10:31	10	TAL PIT	PGJ
P:9010C	LCS 180-122877/3-A		180-122911	180-122877	10/27/2014 12:40	10	TAL PIT	PGJ
A:9014	LCS 180-122877/3-A		180-122911	180-122877	10/27/2014 15:23	10	TAL PIT	PGJ
P:AVSSEM	LCS 180-121963/2-A		180-122072	180-121963	10/19/2014 14:32	1	TAL PIT	MEB
A:9034	LCS 180-121963/2-A		180-122072	180-121963	10/20/2014 14:11	1	TAL PIT	MEB
P:9071B	LCS 180-122780/2-A		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	JPM
A:9071B	LCS 180-122780/2-A		180-122993	180-122780	10/27/2014 06:23	1	TAL PIT	NAK
A:Lloyd Kahn	LCS 180-122589/4		180-122589		10/23/2014 10:44	1	TAL PIT	JDD

Lab ID: LLCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9010C	LLCS 180-122578/1-A		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	LLCS 180-122578/1-A		180-122641	180-122578	10/24/2014 10:27	1	TAL PIT	PGJ
P:9010C	LLCS 180-122877/1-A		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	LLCS 180-122877/1-A		180-122911	180-122877	10/27/2014 15:18	1	TAL PIT	PGJ



## Quality Control Results

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

### Laboratory Chronicle

Lab ID: HLCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9010C	HLCS 180-122578/2-A		180-122641	180-122578	10/24/2014 07:30	1	TAL PIT	PGJ
A:9014	HLCS 180-122578/2-A		180-122641	180-122578	10/24/2014 10:29	1	TAL PIT	PGJ
P:9010C	HLCS 180-122877/2-A		180-122911	180-122877	10/27/2014 12:40	1	TAL PIT	PGJ
A:9014	HLCS 180-122877/2-A		180-122911	180-122877	10/27/2014 15:20	1	TAL PIT	PGJ

#### Lab References:

TAL BUR = TestAmerica Burlington

TAL PIT = TestAmerica Pittsburgh

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
GCAR1232CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	250 mL	GCPCBI1232STD_00003	0.125 mL	PCB-1232 Peak 1	0.5 ug/mL
							PCB-1232 Peak 2	0.5 ug/mL
							PCB-1232 Peak 3	0.5 ug/mL
							PCB-1232 Peak 4	0.5 ug/mL
							PCB-1232 Peak 5	0.5 ug/mL
.GCPCBI1232STD_00003	11/30/18		RESTEK, Lot A090290		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
GCAR1242CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1242STD_00003	0.05 mL	PCB-1242 Peak 1	0.5 ug/mL
							PCB-1242 Peak 2	0.5 ug/mL
							PCB-1242 Peak 3	0.5 ug/mL
							PCB-1242 Peak 4	0.5 ug/mL
							PCB-1242 Peak 5	0.5 ug/mL
.GCPCBI1242STD_00003	11/30/18		RESTEK, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
GCAR1248CALL4_00008	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1248STD_00003	0.05 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
.GCPCBI1248STD_00003	04/30/19		RESTEK, Lot A092864		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
GCAR1660CALL1_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.02 mL	PCB-1016 Peak 1	0.01 ug/mL
							PCB-1016 Peak 2	0.01 ug/mL
							PCB-1016 Peak 3	0.01 ug/mL
							PCB-1016 Peak 4	0.01 ug/mL
							PCB-1016 Peak 5	0.01 ug/mL
							PCB-1260 Peak 1	0.01 ug/mL
							PCB-1260 Peak 2	0.01 ug/mL
							PCB-1260 Peak 3	0.01 ug/mL
							PCB-1260 Peak 4	0.01 ug/mL
							PCB-1260 Peak 5	0.01 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.0005 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	Tetrachloro-m-xylene (Surr)	0.0005 ug/mL
							PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL2_00009	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.1 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.0025 ug/mL
							Tetrachloro-m-xylene (Surr)	0.0025 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL3_00008	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	0.4 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.01 ug/mL
							Tetrachloro-m-xylene (Surr)	0.01 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL4_00008	03/31/15	09/29/14	HEAXANE, Lot 1305300	400 mL	GC1660WORKS_00011	2 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.025 ug/mL
							Tetrachloro-m-xylene (Surr)	0.025 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL4_00008	03/31/15	09/29/14	HEAXANE, Lot 1305300	400 mL	GC1660WORKS_00011	2 mL	PCB-1016	0.5 ug/mL
							PCB-1260	0.5 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016	100 ug/mL
							PCB-1260	100 ug/mL
..GCPCBICAL STD_00001	04/30/19		RESTEK, Lot A092844		(Purchased Reagent)		PCB-1016	1000 ug/mL
							PCB-1260	1000 ug/mL
GCAR1660CALL5_00009	03/31/15	09/29/14	HEAXNE, Lot 1305300	400 mL	GC1660WORKS_00011	4 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.05 ug/mL
							Tetrachloro-m-xylene (Surr)	0.05 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
					Tetrachloro-m-xylene (Surr)	5 ug/mL		
..GCPCBICAL STD_00001	04/30/19	RESTEK, Lot A092844			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19	RESTEK, Lot a092633			(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL6_00007	03/31/15	09/29/14	Hexane, Lot 1305300	200 mL	GC1660WORKS_00011	4 mL	PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.1 ug/mL
							Tetrachloro-m-xylene (Surr)	0.1 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
					GCPEST(SURR)S_00005	0.5 mL	DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19	RESTEK, Lot A092844			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19	RESTEK, Lot a092633			(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR1660CALL7_00008	03/31/15	09/29/14	HEXANE, Lot 1305300	200 mL	GC1660WORKS_00011	8 mL	PCB-1016 Peak 1	4 ug/mL
							PCB-1016 Peak 2	4 ug/mL
							PCB-1016 Peak 3	4 ug/mL
							PCB-1016 Peak 4	4 ug/mL
							PCB-1016 Peak 5	4 ug/mL
							PCB-1260 Peak 1	4 ug/mL
							PCB-1260 Peak 2	4 ug/mL
							PCB-1260 Peak 3	4 ug/mL
							PCB-1260 Peak 4	4 ug/mL
							PCB-1260 Peak 5	4 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.2 ug/mL
							Tetrachloro-m-xylene (Surr)	0.2 ug/mL
.GC1660WORKS_00011	03/31/15	09/29/14	HEXANE, Lot 1305300	20 mL	GCPCBICAL STD_00001	2 mL	PCB-1016 Peak 1	100 ug/mL
							PCB-1016 Peak 2	100 ug/mL
							PCB-1016 Peak 3	100 ug/mL
							PCB-1016 Peak 4	100 ug/mL
							PCB-1016 Peak 5	100 ug/mL
							PCB-1260 Peak 1	100 ug/mL
							PCB-1260 Peak 2	100 ug/mL
							PCB-1260 Peak 3	100 ug/mL
							PCB-1260 Peak 4	100 ug/mL
							PCB-1260 Peak 5	100 ug/mL
							DCB Decachlorobiphenyl (Surr)	5 ug/mL
							Tetrachloro-m-xylene (Surr)	5 ug/mL
..GCPCBICAL STD_00001	04/30/19	RESTEK, Lot A092844			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
..GCPEST(SURR)S_00005	03/20/19		RESTEK, Lot a092633		(Purchased Reagent)		DCB Decachlorobiphenyl (Surr)	200 ug/mL
							Tetrachloro-m-xylene (Surr)	200 ug/mL
GCAR2154CALL4_00007	03/15/15	07/11/14	Hexane, Lot 1241508	100 mL	GCPCBI1221STD_00002	0.05 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL
					GCPCBI1254STD_00003	0.05 mL	PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
.GCPCBI1221STD_00002	12/30/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
.GCPCBI1254STD_00003	02/28/19		RESTEK, Lot A092005		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
GCMATRIXWORKS_00011	03/11/15	07/11/14	ACETONE, Lot 1078945/JT BAKER	250 mL	GCMATRIXSPK_00001	1 mL	PCB-1016	40 ug/mL
							PCB-1260	40 ug/mL
.GCMATRIXSPK_00001	09/30/17		RESTEK, Lot A076606		(Purchased Reagent)		PCB-1016	10000 ug/mL
							PCB-1260	10000 ug/mL
GCTBASOLUTION_00022	10/16/15	10/16/14	DI Water, Lot NONE	2000 g	GCNa2SO3_00004	500 g	Sodium Sulfite	247750 ug/mL
					GCTBA98.0_00002	67.8 g	Tetrabutylammonium Hydrogen Sulfate	33222 ug/mL
.GCNa2SO3_00004	07/01/18		Fisher, Lot 132468		(Purchased Reagent)		Sodium Sulfite	99.1 %
.GCTBA98.0_00002	12/27/20		JT BAKER, Lot J42621		(Purchased Reagent)		Tetrabutylammonium Hydrogen Sulfate	98 %
LKTOCKHPL1_00011	01/28/15	09/11/14	DI Water, Lot na	100 mL	LKTOCKHP_00009	2.128 g	Total Organic Carbon - Duplicates	10022.9 mg/L
.LKTOCKHP_00009	01/28/15		Spectrum, Lot XR0748		(Purchased Reagent)		Total Organic Carbon - Duplicates	47.1 %
LKTOCSRM_00014	08/19/16		Santis Ananalytical AG, Lot 130613		(Purchased Reagent)		Total Organic Carbon - Duplicates	35000 mg/Kg
MCCV1_00133	01/22/15	10/22/14	5%HNO3 - 5%HCL, Lot 80824 - 86340	1000 mL	MTAPITTCALTRA_00006	10 mL	Cadmium	0.5 ppm
							Lead	0.5 ppm
					MTAPITTCALTRC_00006	10 mL	Copper	2 ppm
							Nickel	2 ppm
							Zinc	2 ppm
.MTAPITTCALTRA_00006	08/01/15		Inorganic Ventures, Lot H2-MEB538053		(Purchased Reagent)		Cadmium	50 ppm



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
							Lead	50 ppm					
.MTAPITTCALTRC_00006	08/01/15	Inorganic Ventures, Lot H2-MEB538055			(Purchased Reagent)		Copper	200 ppm					
							Nickel	200 ppm					
							Zinc	200 ppm					
MCCV1X_00068	11/22/14	10/22/14	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00005	10 mL	Arsenic	0.1 ppm					
							Beryllium	0.1 ppm					
							Cadmium	0.1 ppm					
							Chromium	0.1 ppm					
							Copper	0.1 ppm					
							Lead	0.1 ppm					
							Nickel	0.1 ppm					
							Selenium	0.1 ppm					
							Silver	0.1 ppm					
							Thallium	0.1 ppm					
							Zinc	0.1 ppm					
					MCALSPECB_00007	10 mL	Antimony	0.1 ppm					
					.MCALSPECAREV_00005	05/01/15	Inorganic Ventures, Lot F2-MEB524026			(Purchased Reagent)		Arsenic	5 ppm
												Beryllium	5 ppm
Cadmium	5 ppm												
Chromium	5 ppm												
Copper	5 ppm												
Lead	5 ppm												
Nickel	5 ppm												
Selenium	5 ppm												
Silver	5 ppm												
Thallium	5 ppm												
Zinc	5 ppm												
Antimony	5 ppm												
.MCALSPECB_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524027			(Purchased Reagent)		Antimony	5 ppm					
MCR/RLV_00056	01/22/15	10/22/14	5%HNO3 - 5%HCL, Lot 80824 - 86340	1000 mL	MTAPITTCRALDO_00003	10 mL	Cadmium	0.005 ppm					
							Copper	0.025 ppm					
							Lead	0.01 ppm					
							Nickel	0.04 ppm					
							Zinc	0.02 ppm					
.MTAPITTCRALDO_00003	06/01/15	Inorganic Ventures, Lot H2-MEB526045			(Purchased Reagent)		Cadmium	0.5 ppm					
							Copper	2.5 ppm					
							Lead	1 ppm					
							Nickel	4 ppm					
							Zinc	2 ppm					
MCR1X_00057	11/22/14	10/22/14	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00004	1 mL	Arsenic	0.001 ppm					
							Beryllium	0.001 ppm					
							Cadmium	0.001 ppm					
							Chromium	0.002 ppm					
							Lead	0.001 ppm					
							Nickel	0.001 ppm					
							Thallium	0.001 ppm					

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	0.005 ppm
					MMSCRI-2_00006	1 mL	Antimony	0.002 ppm
.MMSCRI-1B_00004	10/01/15	Inorganic Ventures, Lot H2-MEB549023			(Purchased Reagent)		Arsenic	0.25 ppm
							Beryllium	0.25 ppm
							Cadmium	0.25 ppm
							Chromium	0.5 ppm
							Lead	0.25 ppm
							Nickel	0.25 ppm
							Thallium	0.25 ppm
							Zinc	1.25 ppm
.MMSCRI-2_00006	10/01/15	Inorganic Ventures, Lot H2-MEB549024			(Purchased Reagent)		Antimony	0.5 ppm
MHgworkingCal_00909	10/30/14	10/29/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntcal_00068	1 mL	Mercury	100 ppb
.MHgIntcal_00068	11/29/14	10/29/14	2% Nitric Acid, Lot 0000072716	100 mL	MCGHG1-1_00008	1 mL	Mercury	10 ppm
..MCGHG1-1_00008	02/01/15	inorganic ventures, Lot F2-HG02105			(Purchased Reagent)		Mercury	1000 ppm
MHgWorkingicv_00889	10/30/14	10/29/14	2% Nitric Acid, Lot 0000072716	100 mL	MHgIntICV_00055	1 mL	Mercury	100 ppb
.MHgIntICV_00055	11/13/14	10/13/14	2% Nitric Acid, Lot 0000072716	100 mL	MHGICV-1_00005	1 mL	Mercury	10 ppm
..MHGICV-1_00005	07/31/15	ULTRA SCIENTIFIC, Lot T00602			(Purchased Reagent)		Mercury	1000 ppm
MICSAB_00049	12/01/14	10/24/14	5%HNO3 - 5%HCL, Lot 80824 - 86340	1000 mL	MTAPITTICSB_00006	100 mL	Arsenic	1 ppm
							Cadmium	1 ppm
							Chromium	0.5 ppm
							Copper	0.5 ppm
							Lead	1 ppm
							Nickel	1 ppm
							Silver	1 ppm
							Zinc	1 ppm
.MTAPITTICSB_00006	03/01/15	Inorganic Ventures, Lot H2-MEB514030			(Purchased Reagent)		Arsenic	10 ppm
							Cadmium	10 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	10 ppm
							Nickel	10 ppm
							Silver	10 ppm
							Zinc	10 ppm
MICSABX_00062	11/22/14	10/22/14	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
							Ti	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					M6020ICS-0B_00006	1 mL	Arsenic	0.02 ppm
							Cadmium	0.02 ppm
							Chromium	0.02 ppm
							Co	0.02 ppm
							Copper	0.02 ppm
							Mn	0.0225 ppm
							Nickel	0.02 ppm
							Silver	0.02 ppm
							Zinc	0.025 ppm
					MMSICSAB-1_00007	0.2 mL	Ba	0.02 ppm
							Beryllium	0.02 ppm
							Lead	0.02 ppm
							Sr	0.025 ppm
							Thallium	0.02 ppm
					MMSICSAB-2_00006	0.2 mL	V	0.02 ppm
							Antimony	0.02 ppm
							B	0.05 ppm
							Selenium	0.05 ppm
Si	0.5 ppm							
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA	(Purchased Reagent)	Sn	0.1 ppm			
				Al	1000 ppm			
				Ca	1000 ppm			
				Fe	1000 ppm			
				K	1000 ppm			
				Mg	1000 ppm			
				Mo	20 ppm			
				Na	1000 ppm			
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151	(Purchased Reagent)	Ti	20 ppm			
				Arsenic	2 ppm			
				Cadmium	2 ppm			
				Chromium	2 ppm			
				Co	2 ppm			
				Copper	2 ppm			
				Mn	2.25 ppm			
				Nickel	2 ppm			
.MMSICSAB-1_00007	05/01/15	Inorganic Ventures, Lot F2-MEB524028	(Purchased Reagent)	Silver	2 ppm			
				Zinc	2.5 ppm			
				Ba	10 ppm			
				Beryllium	10 ppm			
				Lead	10 ppm			
				Sr	12.5 ppm			
				Thallium	10 ppm			
				V	10 ppm			
.MMSICSAB-2_00006	05/01/15	Inorganic Ventures, Lot G2-MEB467043	(Purchased Reagent)	Antimony	10 ppm			
				B	25 ppm			
				Selenium	25 ppm			
				Si	250 ppm			
				Sn	50 ppm			

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MICSAX_00058	11/22/14	10/22/14	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Ca	100 ppm
							Fe	100 ppm
							K	100 ppm
							Mg	100 ppm
							Mo	2 ppm
							Na	100 ppm
.M6020ICS-0A_00005	09/01/15		Inorganic Ventures, Lot G2-MEB476152MCA		(Purchased Reagent)		Ti	2 ppm
							Al	1000 ppm
							Ca	1000 ppm
							Fe	1000 ppm
							K	1000 ppm
							Mg	1000 ppm
							Mo	20 ppm
MICV1_00044	01/20/15	10/20/14	5%HNO3 - 5%HCL, Lot 80824- 86340	1000 mL	MTAPITTICPICV_00006	20 mL	Na	1000 ppm
							Ti	20 ppm
							Cadmium	0.25 ppm
							Copper	1 ppm
							Lead	0.25 ppm
.MTAPITTICPICV_00006	05/30/15		SPEX, Lot 24-126CR		(Purchased Reagent)		Nickel	1 ppm
							Zinc	1 ppm
							Cadmium	12.5 ppm
							Copper	50 ppm
							Lead	12.5 ppm
MICVX_00024	11/22/14	10/22/14	2% Nitric Acid, Lot 25106	250 mg/L	MICPMSICV_00017	10 mg/L	Nickel	50 ppm
							Zinc	50 ppm
							Antimony	0.08 mg/L
							Arsenic	0.08 mg/L
							Beryllium	0.08 mg/L
							Cadmium	0.08 mg/L
							Chromium	0.08 mg/L
							Copper	0.08 mg/L
							Lead	0.08 mg/L
							Nickel	0.08 mg/L
							Selenium	0.08 mg/L
.MICPMSICV_00017	11/30/14		SPEX CertiPrep, Lot 4-283NY		(Purchased Reagent)		Silver	0.08 mg/L
							Thallium	0.08 mg/L
							Zinc	0.08 mg/L
							Antimony	2 ppm
							Arsenic	2 ppm
							Beryllium	2 ppm
							Cadmium	2 ppm
							Chromium	2 ppm
							Copper	2 ppm
							Lead	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nickel	2 ppm
							Selenium	2 ppm
							Silver	2 ppm
							Thallium	2 ppm
							Zinc	2 ppm
<b>MSTD2X_00038</b>	11/22/14	10/22/14	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00005	10 mg/L	Arsenic	0.2 ppm
							Beryllium	0.2 ppm
							Cadmium	0.2 ppm
							Chromium	0.2 ppm
							Copper	0.2 ppm
							Lead	0.2 ppm
							Nickel	0.2 ppm
							Selenium	0.2 ppm
							Silver	0.2 ppm
							Thallium	0.2 ppm
							Zinc	0.2 ppm
.MCALSPECAREV_00005	05/01/15		Inorganic Ventures, Lot F2-MEB524026		(Purchased Reagent)		Arsenic	5 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	5 ppm
							Copper	5 ppm
							Lead	5 ppm
							Nickel	5 ppm
							Selenium	5 ppm
							Silver	5 ppm
							Thallium	5 ppm
							Zinc	5 ppm
<b>MSTD3X_00039</b>	11/22/14	10/22/14	2% Nitric Acid, Lot 1241747	250 mL	MCALSPECB_00007	10 mg/L	Antimony	0.2 ppm
.MCALSPECB_00007	05/01/15		Inorganic Ventures, Lot F2-MEB524027		(Purchased Reagent)		Antimony	5 ppm
<b>MTAPITTCFMS_00018</b>	04/01/15		INORGANIC VENTURES, Lot G2-MEB506053		(Purchased Reagent)		Al	200 ug/mL
							Arsenic	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Beryllium	5 ug/mL
							Cadmium	5 ug/mL
							Chromium	20 ug/mL
							Co	50 ug/mL
							Copper	25 ug/mL
							Fe	100 ug/mL
							Lead	2 ug/mL
							Mn	50 ug/mL
							Nickel	50 ug/mL
							Selenium	1 ug/mL
							Silver	5 ug/mL
							Sr	100 ug/mL
							Thallium	5 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							V	50 ug/mL
							Zinc	50 ug/mL
MTAPITMSA_00022	10/01/15	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Ca	5000 ug/mL
							K	5000 ug/mL
							Mg	5000 ug/mL
							Na	5000 ug/mL
MTAPITMSBREV_00011	07/01/15	INORGANIC VENTURES, Lot G2-MEB506052			(Purchased Reagent)		Al	200 ug/mL
							Arsenic	50 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Beryllium	5 ug/mL
							Cadmium	5 ug/mL
							Chromium	20 ug/mL
							Co	50 ug/mL
							Copper	25 ug/mL
							Fe	100 ug/mL
							Lead	50 ug/mL
							Li	100 ug/mL
							Mn	50 ug/mL
							Nickel	50 ug/mL
							Selenium	50 ug/mL
							Silver	5 ug/mL
							Sr	100 ug/mL
							Thallium	50 ug/mL
							V	50 ug/mL
							Zinc	50 ug/mL
MTAPITMSC_00028	10/01/15	Inorganic Ventures, Lot H2-MEB532046			(Purchased Reagent)		Antimony	50 ug/mL
							Mo	100 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
OP/PESTPCBRTS_00002	12/31/16	RESTEK, Lot A0100240			(Purchased Reagent)		DCB Decachlorobiphenyl	0.2 ug/mL
							DCB Decachlorobiphenyl (Surr)	0.2 ug/mL
							Tetrachloro-m-xylene (Surr)	0.2 ug/mL
OPLVISPKMIX1i_00031	04/30/15	10/02/14	Methanol, Lot 0000038701	100 mL	SVLVstd1_00021	20 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Hexadecane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							Methyl Phenols,Total	400 ug/mL
							n-Decane	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							n-Octadecane	200 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
							Total Cresols	400 ug/mL
					SVLVstd2_00008	10 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Atrazine	200 ug/mL
							Benzidine	200 ug/mL
							Caprolactam	200 ug/mL
					SVLVstd7_00001	10 mL	N-Nitrosodiphenylamine	200 ug/mL
					SVLVstd8_00004	10 mL	Benzaldehyde	200 ug/mL
							Benzoic acid	200 ug/mL
							Indene	200 ug/mL
.SVLVstd1_00021	05/31/15	Restek, Lot A099449			(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							Methyl Phenols, Total	2000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
							Total Cresols	2000 ug/mL
.SVLVstd2_00008	07/31/15		Restek, Lot A0100416		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benidine	2000 ug/mL
							Caprolactam	2000 ug/mL
.SVLVstd7_00001	12/31/16		Restek, Lot A099909		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
.SVLVstd8_00004	04/30/15		Restek, Lot A0100635		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
OPQL8270SURI_00024	04/14/15	10/14/14	Methanol, Lot b#0000049909	500 mL	SVLVSURRSPK_00006	20 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
.SVLVSURRSPK_00006	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SVTAPSTD0.4i_00007	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	5 uL	Benzo[e]pyrene	0.2 ug/mL
							2-Naphthylamine	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,5,6-Tetrachlorophenol	0.2 ug/mL
							2,6-Dichlorophenol	0.2 ug/mL
							7,12-Dimethylbenz(a)anthracene	0.2 ug/mL
							Methyl methanesulfonate	0.2 ug/mL
							1,1'-Biphenyl	0.2 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.2 ug/mL
							1,2,4-Trichlorobenzene	0.2 ug/mL
							1,2-Dichlorobenzene	0.2 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	0.2 ug/mL
							1,3-Dichlorobenzene	0.2 ug/mL
							1,3-Dinitrobenzene	0.2 ug/mL
							1,4-Dichlorobenzene	0.2 ug/mL
							1,4-Dioxane	0.2 ug/mL
							1-Methylnaphthalene	0.2 ug/mL
							2,2'-oxybis[1-chloropropane]	0.2 ug/mL
							2,3,4,6-Tetrachlorophenol	0.2 ug/mL
							2,4,5-Trichlorophenol	0.2 ug/mL
							2,4,6-Trichlorophenol	0.2 ug/mL
							2,4-Dichlorophenol	0.2 ug/mL
							2,4-Dimethylphenol	0.2 ug/mL
							2,4-Dinitrophenol	0.4 ug/mL
							2,4-Dinitrotoluene	0.2 ug/mL
							2,6-Dinitrotoluene	0.2 ug/mL
							2-Chloronaphthalene	0.2 ug/mL
							2-Chlorophenol	0.2 ug/mL
							2-Methylnaphthalene	0.2 ug/mL
							2-Methylphenol	0.2 ug/mL
							2-Nitroaniline	0.2 ug/mL
							2-Nitrophenol	0.2 ug/mL
							3-Nitroaniline	0.2 ug/mL
							4,6-Dinitro-2-methylphenol	0.4 ug/mL
							4-Bromophenyl phenyl ether	0.2 ug/mL
							4-Chloro-3-methylphenol	0.2 ug/mL
							4-Chloroaniline	0.2 ug/mL
							4-Chlorophenyl phenyl ether	0.2 ug/mL
							4-Methylphenol	0.2 ug/mL
							4-Nitroaniline	0.2 ug/mL
							4-Nitrophenol	0.4 ug/mL
							Acenaphthene	0.2 ug/mL
							Acenaphthylene	0.2 ug/mL
							Acetophenone	0.2 ug/mL
							Aniline	0.2 ug/mL
							Anthracene	0.2 ug/mL
							Benzo[a]anthracene	0.2 ug/mL
							Benzo[a]pyrene	0.2 ug/mL
							Benzo[b]fluoranthene	0.2 ug/mL
							Benzo[g,h,i]perylene	0.2 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	0.2 ug/mL
							Benzyl alcohol	0.2 ug/mL
							Bis (2-chloroethoxy)methane	0.2 ug/mL
							Bis (2-chloroethyl) ether	0.2 ug/mL
							Bis (2-ethylhexyl) phthalate	0.2 ug/mL
							Butyl benzyl phthalate	0.2 ug/mL
							Carbazole	0.2 ug/mL
							Chrysene	0.2 ug/mL
							Di-n-butyl phthalate	0.2 ug/mL
							Di-n-octyl phthalate	0.2 ug/mL
							Dibenz (a,h) anthracene	0.2 ug/mL
							Dibenzofuran	0.2 ug/mL
							Diethyl phthalate	0.2 ug/mL
							Dimethyl phthalate	0.2 ug/mL
							Fluoranthene	0.2 ug/mL
							Fluorene	0.2 ug/mL
							Hexachlorobenzene	0.2 ug/mL
							Hexachlorobutadiene	0.2 ug/mL
							Hexachlorocyclopentadiene	0.2 ug/mL
							Hexachloroethane	0.2 ug/mL
							Hexadecane	0.2 ug/mL
							Indeno[1,2,3-cd]pyrene	0.2 ug/mL
							Isophorone	0.2 ug/mL
							n-Decane	0.2 ug/mL
							N-Nitrosodi-n-propylamine	0.2 ug/mL
							N-Nitrosodimethylamine	0.2 ug/mL
							n-Octadecane	0.2 ug/mL
							Naphthalene	0.2 ug/mL
							Nitrobenzene	0.2 ug/mL
							Pentachlorophenol	0.4 ug/mL
							Phenanthrene	0.2 ug/mL
							Phenol	0.2 ug/mL
							Pyrene	0.2 ug/mL
							Pyridine	0.2 ug/mL
							3,3'-Dichlorobenzidine	0.2 ug/mL
							Atrazine	0.2 ug/mL
							Benzidine	0.2 ug/mL
							Caprolactam	0.2 ug/mL
							N-Nitrosodiphenylamine	0.2 ug/mL
							Benzaldehyde	0.2 ug/mL
							Benzoic acid	0.2 ug/mL
							Indene	0.2 ug/mL
							2,4,6-Tribromophenol (Surr)	0.2 ug/mL
							2-Fluorobiphenyl	0.2 ug/mL
							2-Fluorophenol (Surr)	0.2 ug/mL
							Nitrobenzene-d5 (Surr)	0.2 ug/mL
							Phenol-d5 (Surr)	0.2 ug/mL
							Terphenyl-d14 (Surr)	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	N-Nitrosopyrrolidine	0.2 ug/mL
							1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		Phenanthrene-d10	400 ug/mL
							1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstdl_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl)ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5 (7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
Nitrobenzene-d5 (Surr)	40 ug/mL							
Phenol-d5 (Surr)	40 ug/mL							
SVNNITROPYROS_00015	800 uL	Terphenyl-d14 (Surr)	40 ug/mL					
		N-Nitrosopyrrolidine	40 ug/mL					
..sv benzoepyre_00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz (a) anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD10i_00064	07/28/14	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	125 uL	Benzo[e]pyrene	5 ug/mL
							2-Naphthylamine	5 ug/mL
							2,3,5,6-Tetrachlorophenol	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							7,12-Dimethylbenz(a)anthracene	5 ug/mL
							Methyl methanesulfonate	5 ug/mL
							1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Methylphenol	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis (2-chloroethoxy)methane	5 ug/mL
							Bis (2-chloroethyl) ether	5 ug/mL
							Bis (2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz (a,h) anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							3,3'-Dichlorobenzidine	5 ug/mL
							Atrazine	5 ug/mL
							Benzidine	5 ug/mL
							Caprolactam	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzaldehyde	5 ug/mL
							Benzoic acid	5 ug/mL
							Indene	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
							N-Nitrosopyrrolidine	5 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre 00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyrene_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy) methane	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD10i_00069	08/29/14	08/22/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	125 uL	Benzo[e]pyrene	5 ug/mL
							2-Naphthylamine	5 ug/mL
							2,3,5,6-Tetrachlorophenol	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							7,12-Dimethylbenz(a)anthracene	5 ug/mL
							Methyl methanesulfonate	5 ug/mL
							1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Methylphenol	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis (2-chloroethoxy)methane	5 ug/mL
							Bis (2-chloroethyl)ether	5 ug/mL
							Bis (2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz (a,h) anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							3,3'-Dichlorobenzidine	5 ug/mL
							Atrazine	5 ug/mL
							Benzdine	5 ug/mL
							Caprolactam	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzaldehyde	5 ug/mL
							Benzoic acid	5 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
							N-Nitrosopyrrolidine	5 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROS_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyrene_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINES_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615				2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD10i_00076	10/28/14	10/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITSTCKi_00004	125 uL	1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Nitrophenol	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							3,3'-Dichlorobenzidine	5 ug/mL
							Benzidine	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzoic acid	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	SVLVstd1_00026	800 uL	1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Nitrophenol	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzoic acid	40 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..SVLVSURSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SVTAPSTD10i_00077	11/28/14	10/29/14	MeCl2, Lot 1053215	1 mL	SVTAPITSTCKi_00004	125 uL	1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Nitrophenol	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Anthracene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Bis (2-chloroethoxy) methane	5 ug/mL
							Bis (2-chloroethyl) ether	5 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							3,3'-Dichlorobenzidine	5 ug/mL
							Benzidine	5 ug/mL
							N-Nitrosodiphenylamine	5 ug/mL
							Benzoic acid	5 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	SVLVstd1_00026	800 uL	1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Nitrophenol	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzydine	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzoic acid	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..SVLVSURSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SVTAPSTD2.0i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	25 uL	Benzo[e]pyrene	1 ug/mL
							2-Naphthylamine	1 ug/mL
							2,3,5,6-Tetrachlorophenol	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							7,12-Dimethylbenz(a)anthracene	1 ug/mL
							Methyl methanesulfonate	1 ug/mL
							1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Methylphenol	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis (2-chloroethoxy)methane	1 ug/mL
							Bis (2-chloroethyl) ether	1 ug/mL
							Bis (2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz (a,h) anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Atrazine	1 ug/mL
							Benzidine	1 ug/mL
							Caprolactam	1 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
							N-Nitrosopyrrolidine	1 ug/mL
							1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
							1,4-Dichlorobenzene-d4	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv_benzoepyre_00001	800 uL	Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
					SV2NAPAMINES_00002	800 uL	Benzo[e]pyrene	40 ug/mL
							2-Naphthylamine	40 ug/mL
							2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
					SVLVstdl_00026	800 uL	Methyl methanesulfonate	40 ug/mL
							1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine(as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROs_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre 00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs 00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy) methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD20i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVTAPITSTCKi_00004	250 uL	Benzo[e]pyrene	10 ug/mL
							2-Naphthylamine	10 ug/mL
							2,3,5,6-Tetrachlorophenol	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							7,12-Dimethylbenz(a)anthracene	10 ug/mL
							Methyl methanesulfonate	10 ug/mL
							1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis (2-chloroethoxy)methane	10 ug/mL
							Bis (2-chloroethyl) ether	10 ug/mL
							Bis (2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz (a,h) anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Atrazine	10 ug/mL
							Benzidine	10 ug/mL
							Caprolactam	10 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
							N-Nitrosopyrrolidine	10 ug/mL
							1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
							1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Phenanthrene-d10	2000 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
					SVLVstdl_00026	800 uL	2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
							1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVLVstd2_00012	400 uL	Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
					SVLVstd5(7)_00001	400 uL	Atrazine	40 ug/mL
							Benazidone	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd8_00003	400 uL	N-Nitrosodiphenylamine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
					SVLVSURRSPK_00003	160 uL	Indene	40 ug/mL
							2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
..sv benzoepyrene 00001	10/03/18		Absolute, Lot 100313		SVNNITROPYROS_00015	800 uL	Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
..SV2NAPAMINES_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		N-Nitrosopyrrolidine	40 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							Nitrobenzene	1000 ug/mL		
							Pentachlorophenol	2000 ug/mL		
							Phenanthrene	1000 ug/mL		
							Phenol	1000 ug/mL		
							Pyrene	1000 ug/mL		
							Pyridine	1000 ug/mL		
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL		
							Atrazine	2000 ug/mL		
							Benzdine	2000 ug/mL		
							Caprolactam	2000 ug/mL		
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL		
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL		
							Benzoic acid	2000 ug/mL		
							Indene	2000 ug/mL		
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL		
							2-Fluorobiphenyl	5000 ug/mL		
							2-Fluorophenol (Surr)	5000 ug/mL		
							Nitrobenzene-d5 (Surr)	5000 ug/mL		
							Phenol-d5 (Surr)	5000 ug/mL		
							Terphenyl-d14 (Surr)	5000 ug/mL		
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL		
SVTAPSTD4.0i_00006	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL		
					Acenaphthene-d10		4 ug/mL			
					Chrysene-d12		4 ug/mL			
					Naphthalene-d8		4 ug/mL			
					Perylene-d12		4 ug/mL			
					Phenanthrene-d10		4 ug/mL			
							SVTAPITSTCKi_00004	50 uL	Benzo[e]pyrene	2 ug/mL
					2-Naphthylamine	2 ug/mL				
					2,3,5,6-Tetrachlorophenol	2 ug/mL				
					2,6-Dichlorophenol	2 ug/mL				
					7,12-Dimethylbenz(a)anthracene	2 ug/mL				
					Methyl methanesulfonate	2 ug/mL				
					1,1'-Biphenyl	2 ug/mL				
					1,2,4,5-Tetrachlorobenzene	2 ug/mL				
					1,2,4-Trichlorobenzene	2 ug/mL				
					1,2-Dichlorobenzene	2 ug/mL				
					1,2-Diphenylhydrazine (as Azobenzene)	2 ug/mL				
					1,3-Dichlorobenzene	2 ug/mL				
					1,3-Dinitrobenzene	2 ug/mL				
					1,4-Dichlorobenzene	2 ug/mL				
					1,4-Dioxane	2 ug/mL				
					1-Methylnaphthalene	2 ug/mL				
					2,2'-oxybis[1-chloropropane]	2 ug/mL				
					2,3,4,6-Tetrachlorophenol	2 ug/mL				
					2,4,5-Trichlorophenol	2 ug/mL				
							2,4,6-Trichlorophenol		2 ug/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Methylphenol	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis (2-chloroethoxy)methane	2 ug/mL
							Bis (2-chloroethyl) ether	2 ug/mL
							Bis (2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz (a,h) anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Atrazine	2 ug/mL
							Benzidine	2 ug/mL
							Caprolactam	2 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
							N-Nitrosopyrrolidine	2 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy) methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd5(7)_00001	400 uL	Benzaldehyde	40 ug/mL
					SVLVstd8_00003	400 uL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
SVNNTROPYROS_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL					
..sv benzoepyre 00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs 00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12 00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzydine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SVTAPSTD40i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	500 uL	Benzo[e]pyrene	20 ug/mL
							2-Naphthylamine	20 ug/mL
							2,3,5,6-Tetrachlorophenol	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							7,12-Dimethylbenz(a)anthracene	20 ug/mL
							Methyl methanesulfonate	20 ug/mL
							1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis (2-chloroethoxy)methane	20 ug/mL
							Bis (2-chloroethyl) ether	20 ug/mL
							Bis (2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz (a,h) anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Atrazine	20 ug/mL
							Benzidine	20 ug/mL
							Caprolactam	20 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Benzaldehyde	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
							N-Nitrosopyrrolidine	20 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstdl_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis(2-chloroethoxy)methane	40 ug/mL
							Bis(2-chloroethyl)ether	40 ug/mL
							Bis(2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz(a,h)anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
					Atrazine	40 ug/mL		
					Benzidine	40 ug/mL		
					Caprolactam	40 ug/mL		
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
					Benzoic acid	40 ug/mL		
					Indene	40 ug/mL		
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
					2-Fluorobiphenyl	40 ug/mL		
					2-Fluorophenol (Surr)	40 ug/mL		
Nitrobenzene-d5 (Surr)	40 ug/mL							
Phenol-d5 (Surr)	40 ug/mL							
Terphenyl-d14 (Surr)	40 ug/mL							
SVNNITROPYROS_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL					
..sv benzoepyre 00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINes 00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz (a) anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROs_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD60i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	750 uL	Benzo[e]pyrene	30 ug/mL
							2-Naphthylamine	30 ug/mL
							2,3,5,6-Tetrachlorophenol	30 ug/mL
							2,6-Dichlorophenol	30 ug/mL
							7,12-Dimethylbenz(a)anthracene	30 ug/mL
							Methyl methanesulfonate	30 ug/mL
							1,1'-Biphenyl	30 ug/mL
							1,2,4,5-Tetrachlorobenzene	30 ug/mL
							1,2,4-Trichlorobenzene	30 ug/mL
							1,2-Dichlorobenzene	30 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	30 ug/mL
							1,3-Dichlorobenzene	30 ug/mL
							1,3-Dinitrobenzene	30 ug/mL
							1,4-Dichlorobenzene	30 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	30 ug/mL
							1-Methylnaphthalene	30 ug/mL
							2,2'-oxybis[1-chloropropane]	30 ug/mL
							2,3,4,6-Tetrachlorophenol	30 ug/mL
							2,4,5-Trichlorophenol	30 ug/mL
							2,4,6-Trichlorophenol	30 ug/mL
							2,4-Dichlorophenol	30 ug/mL
							2,4-Dimethylphenol	30 ug/mL
							2,4-Dinitrophenol	60 ug/mL
							2,4-Dinitrotoluene	30 ug/mL
							2,6-Dinitrotoluene	30 ug/mL
							2-Chloronaphthalene	30 ug/mL
							2-Chlorophenol	30 ug/mL
							2-Methylnaphthalene	30 ug/mL
							2-Methylphenol	30 ug/mL
							2-Nitroaniline	30 ug/mL
							2-Nitrophenol	30 ug/mL
							3-Nitroaniline	30 ug/mL
							4,6-Dinitro-2-methylphenol	60 ug/mL
							4-Bromophenyl phenyl ether	30 ug/mL
							4-Chloro-3-methylphenol	30 ug/mL
							4-Chloroaniline	30 ug/mL
							4-Chlorophenyl phenyl ether	30 ug/mL
							4-Methylphenol	30 ug/mL
							4-Nitroaniline	30 ug/mL
							4-Nitrophenol	60 ug/mL
							Acenaphthene	30 ug/mL
							Acenaphthylene	30 ug/mL
							Acetophenone	30 ug/mL
							Aniline	30 ug/mL
							Anthracene	30 ug/mL
							Benzo[a]anthracene	30 ug/mL
							Benzo[a]pyrene	30 ug/mL
							Benzo[b]fluoranthene	30 ug/mL
							Benzo[g,h,i]perylene	30 ug/mL
							Benzo[k]fluoranthene	30 ug/mL
							Benzyl alcohol	30 ug/mL
							Bis(2-chloroethoxy)methane	30 ug/mL
							Bis(2-chloroethyl)ether	30 ug/mL
							Bis(2-ethylhexyl) phthalate	30 ug/mL
							Butyl benzyl phthalate	30 ug/mL
							Carbazole	30 ug/mL
							Chrysene	30 ug/mL
							Di-n-butyl phthalate	30 ug/mL
							Di-n-octyl phthalate	30 ug/mL
							Dibenz(a,h)anthracene	30 ug/mL
							Dibenzofuran	30 ug/mL
							Diethyl phthalate	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	30 ug/mL
							Fluoranthene	30 ug/mL
							Fluorene	30 ug/mL
							Hexachlorobenzene	30 ug/mL
							Hexachlorobutadiene	30 ug/mL
							Hexachlorocyclopentadiene	30 ug/mL
							Hexachloroethane	30 ug/mL
							Hexadecane	30 ug/mL
							Indeno[1,2,3-cd]pyrene	30 ug/mL
							Isophorone	30 ug/mL
							n-Decane	30 ug/mL
							N-Nitrosodi-n-propylamine	30 ug/mL
							N-Nitrosodimethylamine	30 ug/mL
							n-Octadecane	30 ug/mL
							Naphthalene	30 ug/mL
							Nitrobenzene	30 ug/mL
							Pentachlorophenol	60 ug/mL
							Phenanthrene	30 ug/mL
							Phenol	30 ug/mL
							Pyrene	30 ug/mL
							Pyridine	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Atrazine	30 ug/mL
							Benidine	30 ug/mL
							Caprolactam	30 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							2,4,6-Tribromophenol (Surr)	30 ug/mL
							2-Fluorobiphenyl	30 ug/mL
							2-Fluorophenol (Surr)	30 ug/mL
							Nitrobenzene-d5 (Surr)	30 ug/mL
							Phenol-d5 (Surr)	30 ug/mL
							Terphenyl-d14 (Surr)	30 ug/mL
							N-Nitrosopyrrolidine	30 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINEs_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstd1_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzydine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROS_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre_00001	10/03/18		Absolute, Lot 100313		(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINes_00002	06/30/17		Ultra Scientific, Lot Ck-1617		(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15		Restek, Lot A0102912		(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
..SVLVstd1_00026	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis (2-chloroethoxy)methane	1000 ug/mL
							Bis (2-chloroethyl) ether	1000 ug/mL
							Bis (2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz (a,h) anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15	Restek, Lot A0100824			(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzydine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17	Restek, Lot A0101573			(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15	Restek, Lot A0103145			(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURRSPK_00003	02/28/18	Restek, Lot A093638			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
SVTAPSTD80i_00005	02/21/15	07/21/14	MeCl2, Lot 1053215	1 mL	SVTAPITINTRNi_00005	10 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SVTAPITSTCKi_00004	1000 uL	Benzo[e]pyrene	40 ug/mL
							2-Naphthylamine	40 ug/mL
							2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
							1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
							N-Nitrosopyrrolidine	40 ug/mL
.SVTAPITINTRNi_00005	05/07/15	05/07/14	MeCl2, Lot 1000447	25 mL	SVLVIntstd_00007	5000 uL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..SVLVIntstd_00007	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SVTAPITSTCKi_00004	02/21/15	07/21/14	MeCl2, Lot 1053215	20 mL	sv_benzoepyre_00001	800 uL	Benzo[e]pyrene	40 ug/mL
					SV2NAPAMINES_00002	800 uL	2-Naphthylamine	40 ug/mL
					SVLVlist12_00002	800 uL	2,3,5,6-Tetrachlorophenol	40 ug/mL
							2,6-Dichlorophenol	40 ug/mL
							7,12-Dimethylbenz(a)anthracene	40 ug/mL
							Methyl methanesulfonate	40 ug/mL
					SVLVstdl_00026	800 uL	1,1'-Biphenyl	40 ug/mL
							1,2,4,5-Tetrachlorobenzene	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dinitrobenzene	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	40 ug/mL
							1-Methylnaphthalene	40 ug/mL
							2,2'-oxybis[1-chloropropane]	40 ug/mL
							2,3,4,6-Tetrachlorophenol	40 ug/mL
							2,4,5-Trichlorophenol	40 ug/mL
							2,4,6-Trichlorophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	40 ug/mL
							2,4-Dimethylphenol	40 ug/mL
							2,4-Dinitrophenol	80 ug/mL
							2,4-Dinitrotoluene	40 ug/mL
							2,6-Dinitrotoluene	40 ug/mL
							2-Chloronaphthalene	40 ug/mL
							2-Chlorophenol	40 ug/mL
							2-Methylnaphthalene	40 ug/mL
							2-Methylphenol	40 ug/mL
							2-Nitroaniline	40 ug/mL
							2-Nitrophenol	40 ug/mL
							3-Nitroaniline	40 ug/mL
							4,6-Dinitro-2-methylphenol	80 ug/mL
							4-Bromophenyl phenyl ether	40 ug/mL
							4-Chloro-3-methylphenol	40 ug/mL
							4-Chloroaniline	40 ug/mL
							4-Chlorophenyl phenyl ether	40 ug/mL
							4-Methylphenol	40 ug/mL
							4-Nitroaniline	40 ug/mL
							4-Nitrophenol	80 ug/mL
							Acenaphthene	40 ug/mL
							Acenaphthylene	40 ug/mL
							Acetophenone	40 ug/mL
							Aniline	40 ug/mL
							Anthracene	40 ug/mL
							Benzo[a]anthracene	40 ug/mL
							Benzo[a]pyrene	40 ug/mL
							Benzo[b]fluoranthene	40 ug/mL
							Benzo[g,h,i]perylene	40 ug/mL
							Benzo[k]fluoranthene	40 ug/mL
							Benzyl alcohol	40 ug/mL
							Bis (2-chloroethoxy)methane	40 ug/mL
							Bis (2-chloroethyl) ether	40 ug/mL
							Bis (2-ethylhexyl) phthalate	40 ug/mL
							Butyl benzyl phthalate	40 ug/mL
							Carbazole	40 ug/mL
							Chrysene	40 ug/mL
							Di-n-butyl phthalate	40 ug/mL
							Di-n-octyl phthalate	40 ug/mL
							Dibenz (a,h) anthracene	40 ug/mL
							Dibenzofuran	40 ug/mL
							Diethyl phthalate	40 ug/mL
							Dimethyl phthalate	40 ug/mL
							Fluoranthene	40 ug/mL
							Fluorene	40 ug/mL
							Hexachlorobenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexachlorocyclopentadiene	40 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	40 ug/mL
							Hexadecane	40 ug/mL
							Indeno[1,2,3-cd]pyrene	40 ug/mL
							Isophorone	40 ug/mL
							n-Decane	40 ug/mL
							N-Nitrosodi-n-propylamine	40 ug/mL
							N-Nitrosodimethylamine	40 ug/mL
							n-Octadecane	40 ug/mL
							Naphthalene	40 ug/mL
							Nitrobenzene	40 ug/mL
							Pentachlorophenol	80 ug/mL
							Phenanthrene	40 ug/mL
							Phenol	40 ug/mL
							Pyrene	40 ug/mL
							Pyridine	40 ug/mL
					SVLVstd2_00012	400 uL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SVLVstd5(7)_00001	400 uL	N-Nitrosodiphenylamine	40 ug/mL
					SVLVstd8_00003	400 uL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					SVLVSURRSPK_00003	160 uL	2,4,6-Tribromophenol (Surr)	40 ug/mL
							2-Fluorobiphenyl	40 ug/mL
							2-Fluorophenol (Surr)	40 ug/mL
							Nitrobenzene-d5 (Surr)	40 ug/mL
							Phenol-d5 (Surr)	40 ug/mL
							Terphenyl-d14 (Surr)	40 ug/mL
					SVNNITROPYROS_00015	800 uL	N-Nitrosopyrrolidine	40 ug/mL
..sv benzoepyre 00001	10/03/18	Absolute, Lot 100313			(Purchased Reagent)		Benzo[e]pyrene	1000 ug/mL
..SV2NAPAMINEs 00002	06/30/17	Ultra Scientific, Lot Ck-1617			(Purchased Reagent)		2-Naphthylamine	1000 ug/mL
..SVLVlist12_00002	04/30/15	Restek, Lot A0102912			(Purchased Reagent)		2,3,5,6-Tetrachlorophenol	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							7,12-Dimethylbenz (a) anthracene	1000 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
..SVLVstd1_00026	08/31/15	Restek, Lot A0101615				(Purchased Reagent)	1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine (as Azobenzene)	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SVLVstd2_00012	07/31/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
..SVLVstd5(7)_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
..SVLVstd8_00003	05/31/15		Restek, Lot A0103145		(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SVLVSURSPK_00003	02/28/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..SVNNITROPYROS_00015	06/05/17		absolute, Lot 060514		(Purchased Reagent)		N-Nitrosopyrrolidine	1000 ug/mL
VOA2CEVEPRI_00008	10/23/14	10/16/14	Methanol, Lot 34562	10 mL	VOACEVERES_00050	0.25 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00050	02/28/16		Restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
VOA8260INT_00007	03/14/14	02/14/14	Methanol, Lot 49909	10 mL	VOA8260INTRES_00075	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Dioxane-d8 (IS)	500 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00075	02/01/18		Restek, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Dioxane-d8 (IS)	5000 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00018	10/09/14	09/09/14	Methanol, Lot 34562	10 mL	VOA8260INTRES_00097	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00097	02/28/18		Restek, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00021	10/09/14	09/09/14	Methanol, Lot 34562	100 mL	VOA8260SURRES_00010	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00010	02/01/18		Restek, Lot A093505		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00024	10/26/14	09/26/14	Methanol, Lot 34562	100 mL	VOA8260SURRES_00097	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00097	02/28/18		Restek, Lot A093505		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00086	10/23/14	10/16/14	Methanol, Lot 34562	8 mL	VOA8260GAS2ND_00050	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00085	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methylene Chloride	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS2ND_00050	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOA2ND_00085	11/13/14	10/13/14	Methanol, Lot 62345	10 mL	VOA8260MEGA2_00024	1 mL	1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chlorodibromomethane	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methylene Chloride	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260MEGA2_00024	02/28/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromoform	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
VOA8260VOAPRI_00080	09/29/14	09/22/14	Methanol, Lot 34562	8 mL	VOA8260GAS1ST_00076	0.1 mL	Trichloroethene	2000 ug/mL
							Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
					VOA8260VOAPRI_00079	1 mL	Vinyl chloride	25 ug/mL
							2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorobromomethane	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromomethane	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Ethylene Dibromide	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00076	02/28/15		Restek, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00079	10/19/14	09/19/14	Methanol, Lot 62345	10 ug/mL	VOA8260KET1ST_00028	0.2 mL	2-Butanone (MEK)	200 mL
							2-Hexanone	200 mL
							4-Methyl-2-pentanone (MIBK)	200 mL
							Acetone	200 mL
					VOA8260MEGA1_00020	1 mL	1,1,1,2-Tetrachloroethane	200 mL
							1,1,1-Trichloroethane	200 mL
							1,1,2,2-Tetrachloroethane	200 mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	200 mL
							1,1,2-Trichloroethane	200 mL
							1,1-Dichloroethane	200 mL
							1,1-Dichloroethene	200 mL
							1,1-Dichloropropene	200 mL
							1,2,3-Trichlorobenzene	200 mL
							1,2,3-Trichloropropane	200 mL
							1,2,4-Trichlorobenzene	200 mL
							1,2,4-Trimethylbenzene	200 mL
							1,2-Dibromo-3-Chloropropane	200 mL
							1,2-Dichlorobenzene	200 mL
							1,2-Dichloroethane	200 mL
							1,2-Dichloropropane	200 mL
							1,3,5-Trimethylbenzene	200 mL
							1,3-Dichlorobenzene	200 mL
							1,3-Dichloropropane	200 mL
							1,4-Dichlorobenzene	200 mL
							1,4-Dioxane	4000 mL
							2,2-Dichloropropane	200 mL
							2-Chlorotoluene	200 mL
							2-Methyl-2-propanol	2000 mL
							3-Chloro-1-propene	200 mL
							4-Chlorotoluene	200 mL
							4-Isopropyltoluene	200 mL
							Acrylonitrile	2000 mL
							Benzene	200 mL
							Bromobenzene	200 mL
							Bromoform	200 mL
							Carbon disulfide	200 mL
							Carbon tetrachloride	200 mL
							Chlorobenzene	200 mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobromomethane	200 mL
							Chlorodibromomethane	200 mL
							Chloroform	200 mL
							cis-1,2-Dichloroethene	200 mL
							cis-1,3-Dichloropropene	200 mL
							Cyclohexane	200 mL
							Dibromomethane	200 mL
							Dichlorobromomethane	200 mL
							Ethyl ether	200 mL
							Ethyl methacrylate	200 mL
							Ethylbenzene	200 mL
							Ethylene Dibromide	200 mL
							Hexachlorobutadiene	200 mL
							Hexane	200 mL
							Iodomethane	200 mL
							Isobutyl alcohol	5000 mL
							Isopropylbenzene	200 mL
							m-Xylene & p-Xylene	200 mL
							Methyl acetate	1000 mL
							Methyl tert-butyl ether	200 mL
							Methylcyclohexane	200 mL
							Methylene Chloride	200 mL
							n-Butylbenzene	200 mL
							n-Heptane	200 mL
							N-Propylbenzene	200 mL
							Naphthalene	200 mL
							o-Xylene	200 mL
							sec-Butylbenzene	200 mL
							Styrene	200 mL
							tert-Butylbenzene	200 mL
							Tetrachloroethene	200 mL
							Tetrahydrofuran	400 mL
							Toluene	200 mL
							trans-1,2-Dichloroethene	200 mL
							trans-1,3-Dichloropropene	200 mL
							trans-1,4-Dichloro-2-butene	200 mL
							Trichloroethene	200 mL
..VOA8260KET1ST_00028	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00020	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
VOA8260VOAPRI_00084	10/23/14	10/16/14	Methanol, Lot 34562	8 mL	VOA8260GAS1ST_00063	0.1 mL	Trichloroethene	2000 ug/mL
							Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00083	1 mL	1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorodibromomethane	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methylene Chloride	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS1ST_00063	02/28/15	Restek, Lot A093341			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00083	11/13/14	10/13/14	Methanol, Lot 62345	10 mL	VOA8260MEGA1_00021	1 mL	1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chlorodibromomethane	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methylene Chloride	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260MEGA1_00021	02/28/16	Restek, Lot A093581			(Purchased Reagent)		1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOACROLEIN2N_00003	11/06/14	10/06/14	Methanol, Lot 34562	50 mL	VOAACRRES2ND_00045	0.0625 mL	Acrolein	25 ug/mL
.VOAACRRES2ND_00045	11/30/14		Restek, Lot A0104884		(Purchased Reagent)		Acrolein	20000 ug/mL
VOACROPRI_00002	11/03/14	10/03/14	Methanol, Lot 34562	50 mL	VOAACRORES_00054	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00054	11/30/14		Restek, Lot A0104886		(Purchased Reagent)		Acrolein	20000 ug/mL
VOAAPPXPRI_00005	03/28/14	02/28/14	Methanol, Lot 49909	10 mL	VOACYCLORES_00008	0.25 mL	Cyclohexanone	500 ug/mL
					VOALIST2STD1P_00016	0.125 mL	1,2,3-Trimethylbenzene	25 ug/mL
							1,3,5-Trichlorobenzene	25 ug/mL
							2-Chloro-1,3-butadiene	25 ug/mL
							2-Nitropropane	50 ug/mL
							Benzyl chloride	25 ug/mL
							Ethyl acetate	50 ug/mL
							Ethyl acrylate	25 ug/mL
							Isooctane	25 ug/mL
							Isopropyl alcohol	250 ug/mL
							Methacrylonitrile	250 ug/mL
							Methyl methacrylate	50 ug/mL
							n-Butanol	625 ug/mL
							n-Butyl acetate	25 ug/mL
					VOALIST3STD1P_00005	0.125 mL	Acetonitrile	250 ug/mL
							Ethanol	1250 ug/mL
							Isopropyl ether	25 ug/mL
							Propionitrile	250 ug/mL
							Tert-amyl methyl ether	25 ug/mL
							Tert-butyl ethyl ether	25 ug/mL
.VOACYCLORES_00008	02/01/16		Restek, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
.VOALIST2STD1P_00016	06/30/15		Restek, Lot A0100262		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Benzyl chloride	2000 ug/mL
							Ethyl acetate	4000 ug/mL
							Ethyl acrylate	2000 ug/mL
							Isooctane	2000 ug/mL
							Isopropyl alcohol	20000 ug/mL
							Methacrylonitrile	20000 ug/mL
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL

## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOALIST3STD1P_00005	12/31/15		Restek, Lot A099930		(Purchased Reagent)		n-Butyl acetate	2000 ug/mL
							Acetonitrile	20000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
							Tert-butyl ethyl ether	2000 ug/mL
voaw2-clpriRe_00001	03/12/14	03/05/14	Methanol, Lot 49909	10 mL	VOACEVERES_00026	0.25 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00026	02/01/16		Restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
voaWAcro 1 Re_00001	10/02/14	09/02/14	Methanol, Lot 62345	50 mL	VOAACRORES_00051	0.0625 mL	Acrolein	25 ug/mL
.VOAACRORES_00051	10/31/14		Restek, Lot A0104246		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWVA pri Re_00002	09/28/14	08/28/14	Methanol, Lot 62345	20 mL	VOA8260VARES_00039	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00039	10/31/14		Restek, Lot A0102473		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
WCN0.1L3_00003	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	250 mL	WCN10Pi_00454	2.5 mL	Cyanide, Total	0.1 mg/L
.WCN10Pi_00454	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.1L3_00004	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	250 mL	WCN10Pi_00455	2.5 mL	Cyanide, Total	0.1 mg/L
.WCN10Pi_00455	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.2ICV_00288	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN10Si_00458	2 mL	Cyanide, Total	0.2 mg/L
.WCN10Si_00458	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000S_00015	1 mL	Cyanide, Total	10 mg/L
..WCN1000S_00015	12/31/14		Ricca Chemical Co., Lot 4406986		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.2ICV_00289	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN10Si_00460	2 mL	Cyanide, Total	0.2 mg/L
.WCN10Si_00460	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000S_00015	1 mL	Cyanide, Total	10 mg/L
..WCN1000S_00015	12/31/14		Ricca Chemical Co., Lot 4406986		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.5L1_00451	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN10Pi_00454	5 mL	Cyanide, Total	0.5 mg/L
.WCN10Pi_00454	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN0.5L1_00452	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	250 mL	WCN10Pi_00455	12.5 mL	Cyanide, Total	0.5 mg/L
.WCN10Pi_00455	11/02/14	10/27/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
..WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN10Pi_00454	10/26/14	10/21/14	Sodium Hydroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L



## REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN10Pi_00455	11/02/14	10/27/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000P_00022	1 mL	Cyanide, Total	10 mg/L
.WCN1000P_00022	01/24/15		LabChem Inc., Lot D199-09		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCN10Si_00460	11/02/14	10/27/14	Sodium Hyroxide, Lot 2406877	100 mL	WCN1000S_00015	1 mL	Cyanide, Total	10 mg/L
.WCN1000S_00015	12/31/14		Ricca Chemical Co., Lot 4406986		(Purchased Reagent)		Cyanide, Total	1000 mg/L
WCNSoilLCS_00014	07/31/17		ERA, Lot D084-541		(Purchased Reagent)		Cyanide, Total	64.5 mg/Kg
WH2SO4ConcP_00038	07/07/19		Macron Chemicals, Lot 0000086315		(Purchased Reagent)		Sulfuric acid	18 mol/L
WHemPSP_00169	10/06/20		J.T.Baker, Lot 0000058355		(Purchased Reagent)		Acetone	0.002 mg/L
							HEM	4000 mg/L
							HEM Polar (Oil and Grease - Polar)	4000 mg/L
							Hexadecane	2000 mg/L
							SGT HEM (Oil and Grease - Nonpolar)	2000 mg/L
							SGT-HEM	2000 mg/L
							Stearic Acid	2000 mg/L
WSULFPSP_00173	10/20/14	10/13/14	DI Water, Lot Super Q	250 mL	WSulfide_00001	1.8 g	Acid Volatile Sulfides (AVS)	961.2 mg/L
.WSulfide_00001	08/28/16		GFS Chemicals, Lot C359966		(Purchased Reagent)		Acid Volatile Sulfides (AVS)	0.1335 g/g
WSULFSICVCCV_00170	10/21/14	10/14/14	DI Water, Lot Super Q	250 mL	WSULFP_00003	1.8 g	Acid Volatile Sulfides (AVS)	961.2 mg/L
.WSULFP_00003	10/26/14		Sigma-Aldrich, Lot MKBJ3442V		(Purchased Reagent)		Acid Volatile Sulfides (AVS)	0.1335 g/g



# Certificate of Composition

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

## FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 561323 Lot No.: A076606  
Description : Custom Aroclor 1016/1260 Standard  
Expiration Date<sup>1</sup>: September 2017 Storage: Refrigerate  
Handling: This product contains PCB's

Elution Order	Compound	CAS #	Percent Purity <sup>2</sup>	Concentration (weight/volume) <sup>3</sup>	% Uncertainty (95% C.L.; K=2) <sup>4</sup>
1	Aroclor 1016	12674-11-2	----%	10,000.000 ug/ml	+/-0.59 %
2	Aroclor 1260	11096-82-5	----%	10,000.000 ug/ml	+/-0.59 %
Solvent:		Isooctane	540-84-1	99%	

### Column:

30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

### Carrier Gas:

helium-constant pressure 20 psi.

### Temp. Program:

200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

### Inj. Temp:

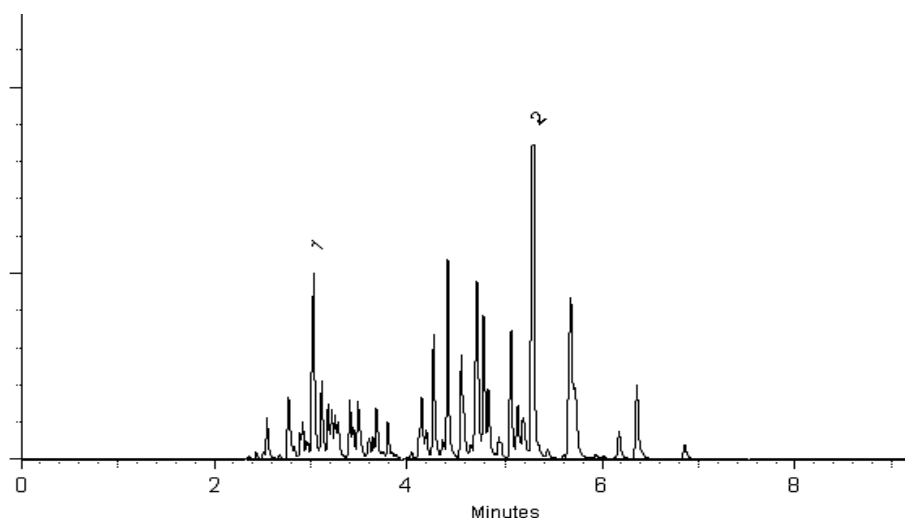
250°C

### Det. Temp:

300°C

### Det. Type:

ECD



*Diane Shaffer*  
Diane Shaffer - QA Analyst

Date Passed: 01-Sep-2010 Balance: 1128342313

APPROVED  
By: [Signature] on: 01-Sep-2010

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

- Expiration date of the unopened ampule stored at the recommended storage condition.
- A Purity is determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value is rounded to the nearest whole number. Chemical identity is confirmed using GC/MS. See data pack or contact provider for further details.
- B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
- C The following types of compounds will have a listed purity of less than 99%: Aldehyde/Ketone-DNPH compounds, Bromides, Chlorides, HCL salts, HBR salts, sulfates, hydrates, and other compounds as necessary. The listed purity is a correction factor that is equivalent to the percentage of parent compound in the molecule. This correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution. The concentration listed on the certificate is the concentration of the parent compound in the solution.
- D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
- Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels) and/or class A glassware used for dilutions.
- Uncertainties determined using data for balances and glassware from measurement systems analysis methodology, raw material purity, and, when significant, equipment tolerances or calibration results.



1 Reagent Lane  
Fair Lawn, NJ 07410  
201.796.7100 tel  
201.796.1329 fax

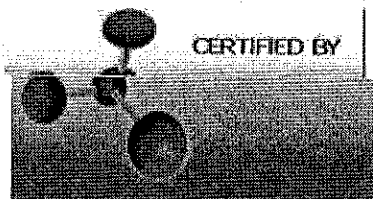
## Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System  
Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S430	Quality Test / Release Date 7/22/2013	
Lot Number	132468		
Description	SODIUM SULFITE, A.C.S.		
Country of Origin	Italy	Recommended Retest Date	Jul-2018
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ASSAY	%	>= 98	98.6
CHLORIDE	%	<= 0.02	<0.020
FREE ACID	PASS/FAIL	= PASS TEST	PASS TEST
HEAVY METALS (as Pb)	%	<= 0.001	<0.0010
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	%	<= 0.001	<0.0010
TITRATABLE FREE BASE	mEq/g	<= 0.03	0.020



*Edgar E. Hana*

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.Restek.com



## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32007 **Lot No.:** A090667  
**Description :** Aroclor® 1221 Standard  
Aroclor 1221 1000µg/mL, Hexane, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 2018 **Storage:** 25°C nominal  
**Handling:** Contains PCBs - sonicate prior to use.

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Aroclor 1221		1,000.0    μg/mL	+/-	5.8686	μg/mL	Gravimetric
	CAS #	11104-28-2		+/-	20.8758	μg/mL	Unstressed
	Purity	----%		+/-	34.3670	μg/mL	Stressed
Solvent:	Hexane						
	CAS #	110-54-3					
	Purity	99%					

**Column:**  
30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

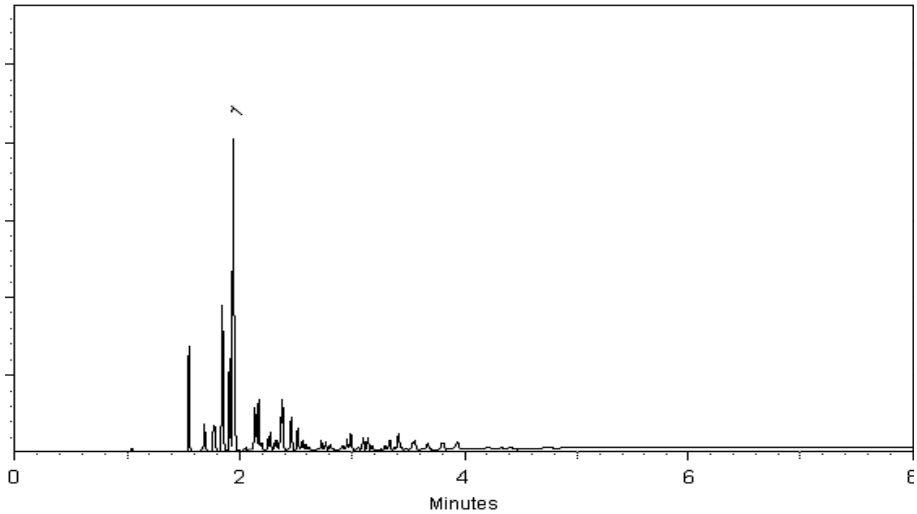
**Carrier Gas:**  
helium-constant pressure 20 psi.

**Temp. Program:**  
200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
300°C

**Det. Type:**  
ECD



*Jodi E. Breon*  
Jodi E. Breon - QA Analyst

Date Passed: 13-Sep-2012      Balance: 1125113331

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.Restek.com



## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32008 **Lot No.:** A090290  
**Description :** Aroclor® 1232 Standard  
Aroclor 1232 1000ug/mL, Hexane, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** November 2018 **Storage:** 25°C nominal  
**Handling:** Contains PCBs - sonicate prior to use.

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Aroclor 1232		1,000.0    μg/mL	+/-	5.8686	μg/mL	Gravimetric
	CAS #	11141-16-5		+/-	20.8758	μg/mL	Unstressed
	Purity	99%		+/-	34.3670	μg/mL	Stressed
Solvent:	Hexane						
	CAS #	110-54-3					
	Purity	99%					

**Column:**  
30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

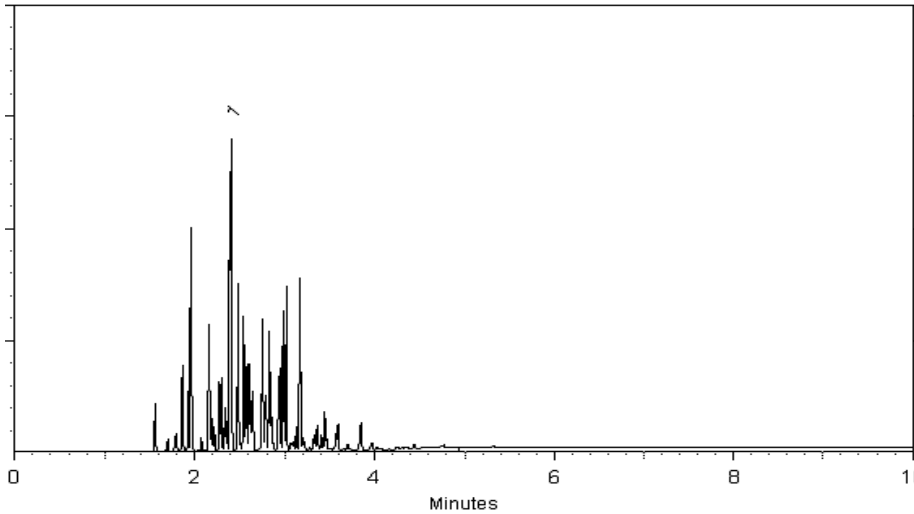
**Carrier Gas:**  
helium-constant pressure 20 psi.

**Temp. Program:**  
200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
300°C

**Det. Type:**  
ECD



*Jodi E. Breon*  
Jodi E. Breon - QA Analyst

Date Passed: 27-Aug-2012      Balance: 1128342314

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32009 **Lot No.:** A090182

**Description :** Aroclor® 1242 Standard  
Aroclor® 1242 Standard 1,000 µg/mL, Hexane, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** November 30, 2018 **Storage:** 25°C nominal

**Handling:** This product contains PCB's

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Aroclor 1242	1,000.0 µg/mL	+/- 5.8275 µg/mL Gravimetric
	CAS # 53469-21-9 (Lot 01141-A)		+/- 20.8643 µg/mL Unstressed
	Purity ----%		+/- 34.3600 µg/mL Stressed

**Solvent:** Hexane  
CAS # 110-54-3  
Purity 99%

**Column:**

30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

**Carrier Gas:**

helium-constant pressure 20 psi.

**Temp. Program:**

200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**

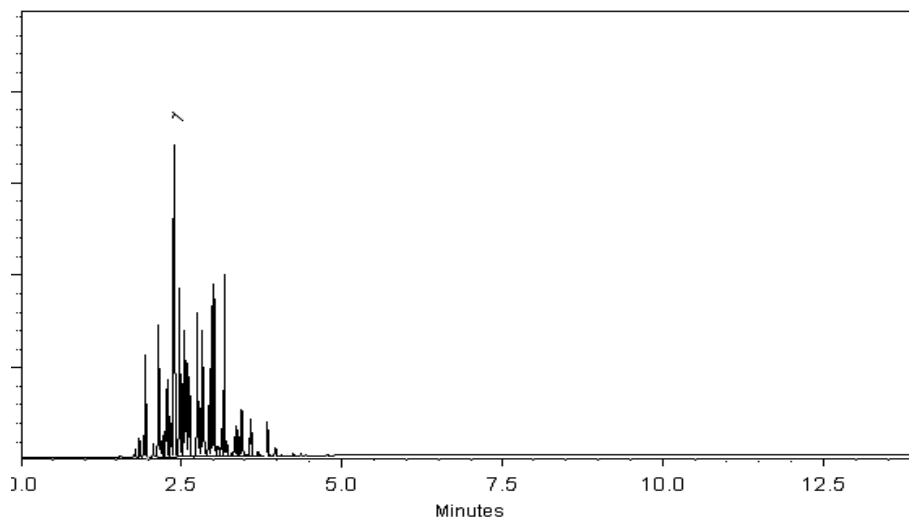
250°C

**Det. Temp:**

300°C

**Det. Type:**

ECD



This chromatogram represents a general set of testing conditions chosen to guarantee product quality. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Rebecca Jauer*

Date Mixed: 10-Aug-2012

Balance: 1128360905

*Jennifer L. Pollino*

Jennifer L. Pollino - QC Analyst

Date Passed: 15-Aug-2012

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com



## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32010 **Lot No.:** A092864

**Description :** Aroclor® 1248 Standard

Aroclor 1248 1000µg/mL, Hexane, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 2019 **Storage:** 25°C nominal

**Handling:** This product contains PCB's

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Aroclor 1248		1,000.0	µg/mL	+/-	5.8686	µg/mL	Gravimetric
	CAS #	12672-29-6			+/-	20.8758	µg/mL	Unstressed
	Purity	----%			+/-	34.3670	µg/mL	Stressed
Solvent:	Hexane							
	CAS #	110-54-3						
	Purity	99%						

**Column:**  
30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

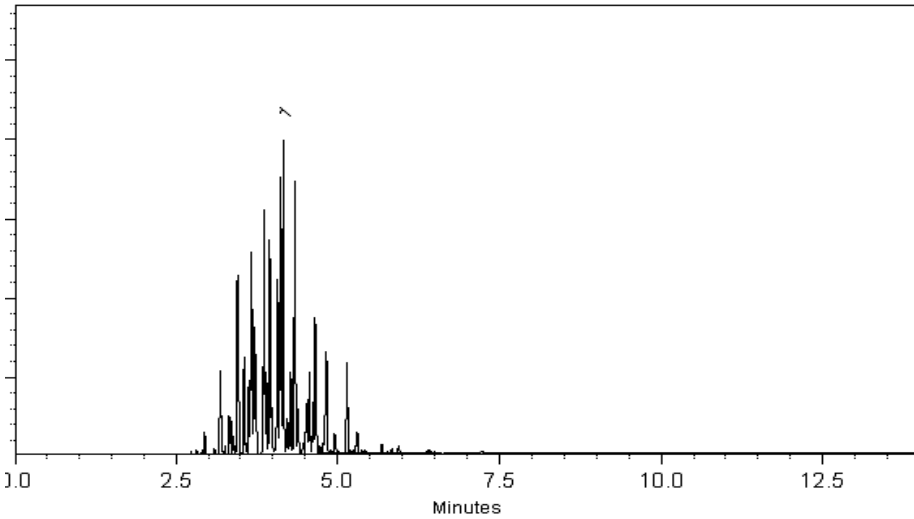
**Carrier Gas:**  
helium-constant pressure 20 psi.

**Temp. Program:**  
200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
300°C

**Det. Type:**  
ECD



*Diane Shaffer*  
Diane Shaffer - QA Analyst

Date Passed: 14-Jan-2013      Balance: 1125113331

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32011 **Lot No.:** A092005  
**Description :** Aroclor® 1254 Standard  
Aroclor 1254 1000µg/mL, Hexane, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2019 **Storage:** 25°C nominal  
**Handling:** This product contains PCB's

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Aroclor 1254		1,000.0    μg/mL	+/-	5.8686	μg/mL	Gravimetric
	CAS #	11097-69-1		+/-	20.8758	μg/mL	Unstressed
	Purity	99%		+/-	34.3670	μg/mL	Stressed
Solvent:	Hexane						
	CAS #	110-54-3					
	Purity	99%					



**Column:**  
30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

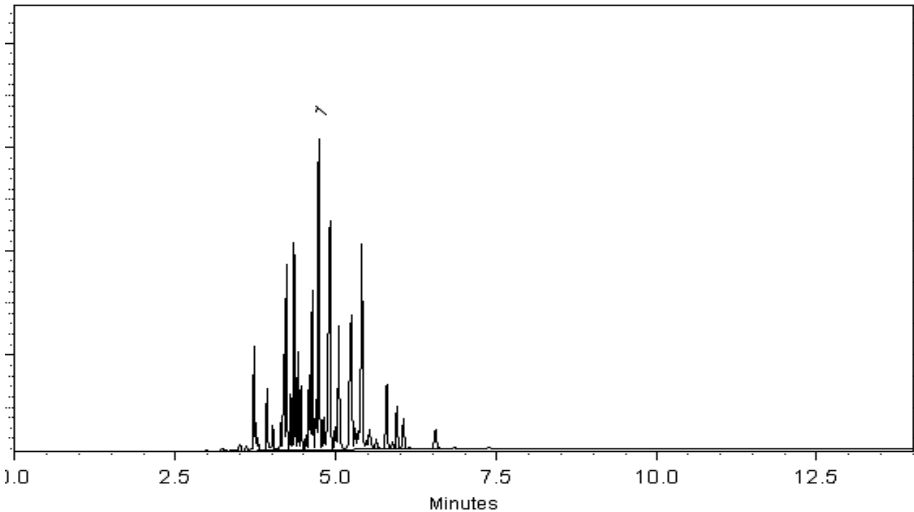
**Carrier Gas:**  
helium-constant pressure 20 psi.

**Temp. Program:**  
200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
300°C

**Det. Type:**  
ECD



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 21-Nov-2012      Balance: 1128342313

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 32039 **Lot No.:** A092844  
**Description :** Aroclor® 1016/1260 Mix  
Aroclor 1016/1260 1000µg/mL, Hexane, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 2019 **Storage:** 25°C nominal  
**Handling:** This product contains PCB's

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Aroclor 1016		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS #	12674-11-2			+/-	20.8643	µg/mL	Unstressed
	Purity	99%			+/-	34.3600	µg/mL	Stressed
2	Aroclor 1260		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS #	11096-82-5			+/-	20.8643	µg/mL	Unstressed
	Purity	----%			+/-	34.3600	µg/mL	Stressed
Solvent:	Hexane							
	CAS #	110-54-3						
	Purity	99%						

**Column:**

30m x .25mm x .2um  
Rtx-CLP II (cat.# 11323)

**Carrier Gas:**

helium-constant pressure 20 psi.

**Temp. Program:**

200°C to 300°C  
@ 25°C/min. ( hold 10 min.)

**Inj. Temp:**

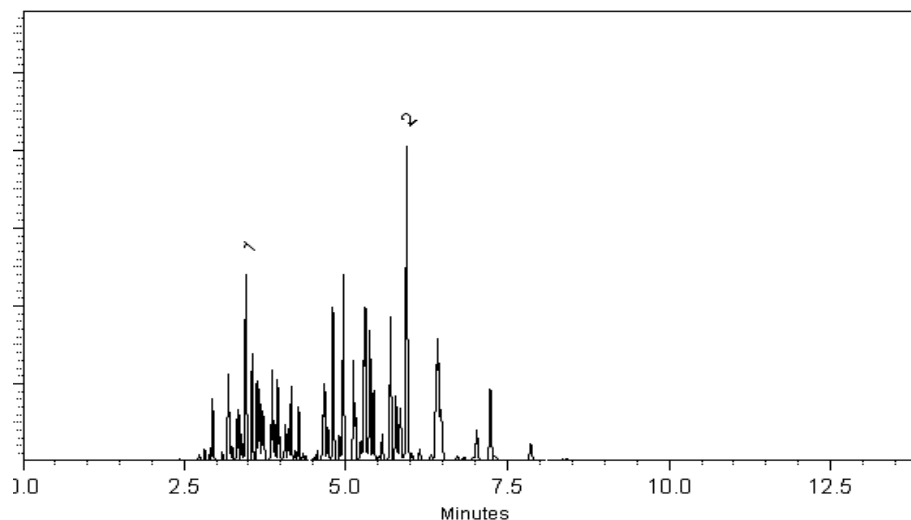
250°C

**Det. Temp:**

300°C

**Det. Type:**

ECD



*Diane Shaffer*  
Diane Shaffer - QA Analyst

Date Passed: 14-Jan-2013

Balance: 1125113331

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Item Number	P1190	Lot Number	XR0748
Item	Potassium Hydrogen Phthalate, Acidimetric Standard, Crystal, Reagent Special, ACS		
CAS Number	877-24-7		
Molecular Formula	C <sub>8</sub> H <sub>5</sub> KO <sub>4</sub>	Molecular Weight	204.22

Test	Specification		Result
	min	max	
ASSAY (C <sub>8</sub> H <sub>5</sub> O <sub>4</sub> K)	99.95 - 100.05 %		100.01 %
pH OF A 0.05M SOLUTION @ 25°C	4.00 - 4.02		4.01
INSOLUBLE MATTER		0.005 %	< 0.005 %
CHLORINE COMPOUNDS (as Cl)		0.003 %	< 0.003 %
SULFUR COMPOUNDS (as S)		0.002 %	< 0.002 %
HEAVY METALS (as Pb)		5 ppm	< 5 ppm
IRON (Fe)		5 ppm	< 5 ppm
SODIUM (Na)		0.005 %	< 0.005 %
RETEST DATE			07-APR-2013
MANUFACTURE DATE			16-JUN-2008

Spectrum Chemical Mfg Corp  
14422 South San Pedro Street  
Gardena 90248 CA

Certificate of Analysis Results Certified By:



Adan Hernandez  
Quality Control Manager  
Spectrum Chemicals & Laboratory Products





1293070

ID: LKTOGSRM\_00014

Exp:08/19/16 Prip:CMR Opn:08/19/14  
standard reference materi

# CERTIFICATE OF ANALYSIS

## ELEMENTAL ANALYSIS

### STANDARD REFERENCE MATERIAL

**PRODUCT NAME:** SOIL CNS REFERENCE MATERIAL  
**ARTICLE NO:** SA33840025  
**APPEARANCE:** Brown powder  
**LOT NUMBER:** 130613

Lot Number **130613** is a highly purified and homogeneous lot of Soil NC.  
It is intended for use in checking micro chemical procedures for the determination of carbon and nitrogen.

**ORIGINAL MANUFACTURER ASSAY:** Lot Number 130613

#### ELEMENTAL ANALYSIS (STATISTICAL EXPERIMENTAL VALUES)

<b>CARBON:</b>	<b>3.496 %</b>	-	<b>RSD%: +/- 0.050</b>
<b>NITROGEN:</b>	<b>0.365 %</b>	-	<b>RSD%: +/- 0.050</b>
<b>SULFUR</b>	<b>0.063 %</b>	-	<b>RSD%: +/- 0.050</b>

Verified via use of an NIST certified Montana Soil (NIST Std. Ref. Mat. N. 2711 batch 1299).  
Statistical results of 9 samples of supplied material after calibration with NIST material.

**Expiration Date:** This CRM is valid for two years from the date of opening.

**Date 13/06/2013**

**1.0 INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Stock Solution**

Catalog No.:                      6020ICS-0A

Lot Number:                      **G2-MEB476152MCA**

Matrix:                              1.4% HNO<sub>3</sub>(v/v)

10,000 µg/mL ea:

Chloride,

2,000 µg/mL ea:

C,

1,000 µg/mL ea:

Al,                      Ca,                      Fe,                      K,                      Mg,                      Na,                      P,                      S,

20 µg/mL ea:

Mo,                      Ti

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	1,002 ± 6 µg/mL	Calcium, Ca	1,002 ± 6 µg/mL	Carbon, C	2,004 ± 13 µg/mL
Chloride, Chloride	10,020.0 ± 50.0 µg/mL	Iron, Fe	1,002 ± 7 µg/mL	Magnesium, Mg	1,002 ± 4 µg/mL
Molybdenum, Mo	20.04 ± 0.14 µg/mL	Phosphorus, P	1,002 ± 7 µg/mL	Potassium, K	1,002 ± 4 µg/mL
Sodium, Na	1,002 ± 7 µg/mL	Sulfur, S	1,002 ± 5 µg/mL	Titanium, Ti	20.04 ± 0.13 µg/mL

**Certified Density:**      1.034      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.



#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.
- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
C	Gravimetric		See Sec. 4.2
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Chloride	Acidimetric	84L	84L
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84k	84k
Ti	ICP Assay	3162a	060808

- 4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).
- 4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.
- 4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

## 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL

Custom-Grade solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

<u>s</u> Al	<u>M</u> Dy < 0.000100	<u>O</u> Li 0.002000	<u>M</u> Pr < 0.000100	<u>M</u> Te < 0.012007
<u>M</u> Sb < 0.000600	<u>M</u> Er < 0.000100	<u>M</u> Lu < 0.000100	<u>M</u> Re < 0.000100	<u>M</u> Tb < 0.000100
<u>O</u> As < 0.020000	<u>M</u> Eu < 0.000100	<u>s</u> Mg	<u>M</u> Rh < 0.000100	<u>M</u> Tl < 0.000100
<u>O</u> Ba < 0.000200	<u>M</u> Gd < 0.000100	<u>O</u> Mn 0.003000	<u>M</u> Rb < 0.020012	<u>M</u> Th < 0.000100
<u>O</u> Be < 0.000090	<u>M</u> Ga < 0.001001	<u>O</u> Hg < 0.005000	<u>M</u> Ru < 0.000100	<u>M</u> Tm < 0.000100
<u>M</u> Bi < 0.005003	<u>O</u> Ge < 0.015000	<u>s</u> Mo	<u>M</u> Sm < 0.000100	<u>M</u> Sn < 0.003002
<u>O</u> B < 0.005000	<u>M</u> Au < 0.001001	<u>M</u> Nd < 0.000100	<u>O</u> Sc < 0.000700	<u>s</u> Ti
<u>O</u> Cd 0.003400	<u>M</u> Hf < 0.002001	<u>O</u> Ni < 0.002000	<u>M</u> Se < 0.050029	<u>O</u> W < 0.007000
<u>s</u> Ca	<u>M</u> Ho < 0.000100	<u>M</u> Nb < 0.002001	<u>n</u> Si	<u>M</u> U < 0.000100
<u>M</u> Ce < 0.000500	<u>M</u> In < 0.001001	<u>n</u> Os	<u>M</u> Ag < 0.001001	<u>O</u> V < 0.004000
<u>M</u> Cs < 0.001001	<u>M</u> Ir < 0.000100	<u>M</u> Pd < 0.003002	<u>s</u> Na	<u>M</u> Yb < 0.000100
<u>O</u> Cr < 0.010000	<u>s</u> Fe	<u>s</u> P	<u>O</u> Sr 0.005000	<u>M</u> Y < 0.000100
<u>M</u> Co < 0.001001	<u>M</u> La < 0.000200	<u>M</u> Pt < 0.000100	<u>s</u> S	<u>M</u> Zn 0.016610
<u>O</u> Cu < 0.020000	<u>M</u> Pb 0.002001	<u>s</u> K	<u>M</u> Ta < 0.001001	<u>M</u> Zr < 0.004002

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

## 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

## 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

## 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.

Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

- 10.1 ISO 9001 Quality Management System Registration
  - SAI Global File Number 010105
- 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
  - Chemical Testing - Accredited A2LA Certificate Number 883.01
- 10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
  - Reference Materials Production - Accredited A2LA Certificate Number 883.02
- 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
  - Domestic Licensing of Production and Utilization Facilities
- 10.5 10CFR21 - Nuclear Regulatory Commission
  - Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

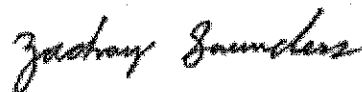
**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: July 12, 2013

Expiration Date: **EXPIRES**  
01<sup>st</sup> 2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders  
Product Documentation Technician



Certificate Approved By: Allyson Williams  
Quality Control Supervisor



Certifying Officer: Paul Gaines  
PhD., Senior Technical Director



**1.0 INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM      Stock Solution**  
Catalog No.:                      6020ICS-0B  
Lot Number:                      **G2-MEB463151**  
Matrix:                              3% HNO<sub>3</sub>(v/v)

2 µg/mL ea:

Ag,                      As,                      Cd,                      Co,                      Cr<sub>3</sub>,                      Cu,                      Mn,                      Ni,                      Zn

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	2.000 ± 0.013 µg/mL	Gadimium, Cd	2.000 ± 0.013 µg/mL	Chromium+3, Cr <sub>3</sub>	2.000 ± 0.013 µg/mL
Cobalt, Co	2.000 ± 0.013 µg/mL	Copper, Cu	2.000 ± 0.013 µg/mL	Manganese, Mn	2.000 ± 0.013 µg/mL
Nickel, Ni	2.000 ± 0.013 µg/mL	Silver, Ag	2.000 ± 0.013 µg/mL	Zinc, Zn	2.000 ± 0.013 µg/mL

**Certified Density:**      1.012      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(  $\bar{x}$  ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 [ \sum (s_i)^2 ]^{1/2}$$

2 = the coverage factor.

$[ \sum (s_i)^2 ]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

· The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

**4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

#### 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

#### 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

Element Specific Information - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

#### 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

#### 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration  
- SAI Global File Number 010105

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"  
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"  
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission  
- Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission  
- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 **Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 **Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

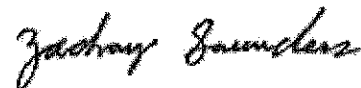
11.3 **Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: March 25, 2013

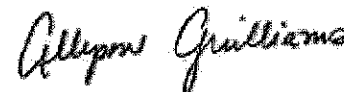
Expiration Date: **EXPIRES**  
01<sup>st</sup> 2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders  
Product Documentation Technician



Certificate Approved By: Allyson Guilliams  
Quality Control Supervisor



Certifying Officer: Paul Gaines  
PhD., Senior Technical Director



**1.0** INORGANIC VENTURES is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Custom Solution**  
Catalog No.:      TAPITT-CAL-SPECA-REV  
Lot Number:      H2-MEB524026  
Matrix:      3% HNO<sub>3</sub>(v/v)

2,500 µg/mL ea:

Ca,      K,      Mg,      Na,

1,250 µg/mL ea:

Fe,

25 µg/mL ea:

Al,      Mn,

5 µg/mL ea:

Ag,      As,      Ba,      Be,      Cd,      Co,      Cr<sub>3</sub>,      Cu,      Ni,  
Pb,      Se,      Sr,      Ti,      V,      Zn

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	24.99 ± 0.18 µg/mL	Arsenic, As	4.998 ± 0.032 µg/mL	Barium, Ba	5.000 ± 0.032 µg/mL
Beryllium, Be	5.000 ± 0.028 µg/mL	Cadmium, Cd	4.998 ± 0.032 µg/mL	Calcium, Ca	2,500 ± 11 µg/mL
Chromium+3, Cr <sub>3</sub>	5.000 ± 0.028 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	4.999 ± 0.032 µg/mL
Iron, Fe	1,250 ± 6 µg/mL	Lead, Pb	4.998 ± 0.025 µg/mL	Magnesium, Mg	2,500 ± 16 µg/mL
Manganese, Mn	24.99 ± 0.17 µg/mL	Nickel, Ni	5.003 ± 0.028 µg/mL	Potassium, K	2,500 ± 11 µg/mL
Selenium, Se	5.002 ± 0.028 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL	Sodium, Na	2,499 ± 11 µg/mL
Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	5.000 ± 0.032 µg/mL	Vanadium, V	5.000 ± 0.032 µg/mL
Zinc, Zn	5.004 ± 0.032 µg/mL				

**Certified Density:**      1.051      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

• "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

• This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

• The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.



## 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

• "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

• This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

- 4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).
- 4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.
- 4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.
- 5.0 **TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A**
- 6.0 **INTENDED USE**  
 For the calibration of analytical instruments including but not limited to the following:  
 HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
 For the validation of analytical methods  
 For the preparation of "working reference samples"  
 For interference studies and the determination of correction coefficients  
 For detection limit and linearity studies  
 For additional intended uses, contact Technical Staff
- This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.
- 7.0 **INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**  
**Storage & Handling** - Keep Tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do Not pipette from the container. Do Not return portions removed from pipetting to container.  
 Element Specific Information - For specific information regarding any element: Contact technical staff.  
 Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.  
 Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.
- 8.0 **HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.
- 9.0 **HOMOGENEITY** - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.  
 Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.
- 10.0 **QUALITY STANDARD DOCUMENTATION**
- 10.1 **ISO 9001 Quality Management System Registration**  
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 - Reference Materials Production - Accredited A2LA Certificate Number 883.02
- 10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**  
 - Domestic Licensing of Production and Utilization Facilities
- 10.5 **10CFR21 - Nuclear Regulatory Commission**  
 - Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

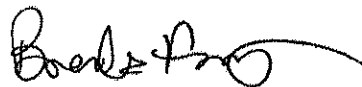
**Certification Date:** April 04, 2014

**Expiration Date:**

**EXPIRES**  
01<sup>st</sup> 2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:** Brenda Francis  
Product Documentation Technician



**Certificate Approved By:** Brian Alexander  
PhD., Technical Process Director



**Certifying Officer:** Paul Gaines  
PhD., Senior Technical Director





300 Technology Drive  
Christiansburg, VA 24073 - USA  
inorganicventures.com

# CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030  
fax: 540.585.3012  
info@inorganicventures.com

**1.0** INORGANIC VENTURES is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Custom Solution**  
Catalog No.:                      TAPITT-CAL-SPECB  
Lot Number:                      H2-MEB524027  
Matrix:                            3% HNO<sub>3</sub>(v/v),  
   tr. HF

250 µg/mL ea:

Si,

5 µg/mL ea:

B,                      Mo,                      Sb,                      Sn,                      Ti

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	4.999 ± 0.044 µg/mL	Boron, B	5.000 ± 0.032 µg/mL	Molybdenum, Mo	4.999 ± 0.041 µg/mL
Silicon, Si	250.0 ± 1.6 µg/mL	Tin, Sn	4.999 ± 0.041 µg/mL	Titanium, Ti	4.999 ± 0.040 µg/mL

**Certified Density:**      1.017      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

· The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

**4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

#### 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

#### 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**HF Note:** This standard should not be prepared or stored in glass.

#### 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

#### 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

- 10.1 ISO 9001 Quality Management System Registration  
- SAI Global File Number 010105
- 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"  
- Chemical Testing - Accredited A2LA Certificate Number 883.01
- 10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"  
- Reference Materials Production - Accredited A2LA Certificate Number 883.02
- 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission  
- Domestic Licensing of Production and Utilization Facilities
- 10.5 10CFR21 - Nuclear Regulatory Commission  
- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

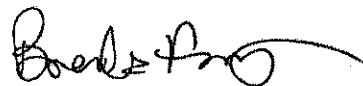
Certification Date: April 04, 2014

Expiration Date: **EXPIRES**

01/1/2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis  
Product Documentation Technician



Certificate Approved By: Brian Alexander  
PhD., Technical Process Director



Certifying Officer: Paul Gaines  
PhD., Senior Technical Director



- 1.0** INORGANIC VENTURES is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



- 2.0 DESCRIPTION OF CRM**      **1000 µg/mL Mercury in 5% (v/v) HNO<sub>3</sub>**
- Catalog Number: CGHG1-1, CGHG1-2, and CGHG1-5
- Lot Number: **F2-HG02105**
- Starting Material: Hg metal
- Starting Material Purity (%): 99.9997
- Starting Material Lot No: 1780
- Matrix: 5% (v/v) HNO<sub>3</sub>

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

**Certified Concentration:** 1,000 ± 6 µg/mL -weighted mean-

**Certified Density:** 1.018 g/mL (measured at 20 ± 1°C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where's stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

**4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

"Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- 4.1 Assay Method #1**      **999 ± 4 µg/mL**  
ICP Assay NIST SRM 3133 Lot Number: 061204
- Assay Method #2**      **1,001 ± 3 µg/mL**  
EDTA NIST SRM 928 Lot Number: 928



4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an A2LA accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

## 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN µg/mL

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

<u>Q</u> Al 0.000049	<u>M</u> Dy < 0.012339	<u>Q</u> Li < 0.000020	<u>M</u> Pr < 0.000617	<u>M</u> Te < 0.061693
<u>M</u> Sb < 0.001028	<u>M</u> Er < 0.010282	<u>M</u> Lu < 0.000823	<u>M</u> Re < 0.002056	<u>M</u> Tb < 0.000617
<u>M</u> As < 0.020564	<u>M</u> Eu < 0.006169	<u>Q</u> Mg 0.000589	<u>M</u> Rh < 0.002056	<u>Q</u> Tl < 0.006000
<u>M</u> Ba < 0.020564	<u>M</u> Gd < 0.002056	<u>M</u> Mn < 0.008226	<u>M</u> Rb < 0.002056	<u>M</u> Th < 0.002056
<u>M</u> Be < 0.001028	<u>M</u> Ga < 0.002056	<u>s</u> Hg	<u>M</u> Ru < 0.004113	<u>M</u> Tm < 0.000823
<u>M</u> Bi < 0.000823	<u>Q</u> Ge < 0.018000	<u>M</u> Mo < 0.004113	<u>M</u> Sm < 0.002056	<u>M</u> Sn < 0.010282
<u>M</u> B < 0.143950	<u>M</u> Au < 0.006169	<u>M</u> Nd < 0.004113	<u>M</u> Sc < 0.020564	<u>M</u> Ti < 0.102822
<u>Q</u> Cd < 0.004600	<u>M</u> Hf < 0.004113	<u>Q</u> Ni < 0.001000	<u>M</u> Se < 0.016451	<u>M</u> W < 0.020564
<u>Q</u> Ca 0.002160	<u>M</u> Ho < 0.001028	<u>M</u> Nb < 0.001028	<u>Q</u> Si < 0.003400	<u>M</u> U < 0.004113
<u>M</u> Ce < 0.010282	<u>M</u> In < 0.020564	<u>n</u> Os	<u>M</u> Ag < 0.004113	<u>M</u> V < 0.004113
<u>M</u> Cs < 0.000617	<u>M</u> Ir < 0.010282	<u>Q</u> Pd < 0.003800	<u>Q</u> Na 0.000491	<u>M</u> Yb < 0.002056
<u>M</u> Cr < 0.010282	<u>Q</u> Fe < 0.001100	<u>Q</u> P < 0.002600	<u>M</u> Sr < 0.001028	<u>M</u> Y < 0.062257
<u>M</u> Co < 0.006169	<u>M</u> La < 0.001028	<u>M</u> Pt < 0.004113	<u>Q</u> S < 0.025000	<u>M</u> Zn < 0.041129
<u>M</u> Cu < 0.012339	<u>M</u> Pb < 0.006169	<u>Q</u> K < 0.002000	<u>M</u> Ta < 0.014395	<u>M</u> Zr < 0.010282

M - Checked by ICP-MS

Q - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

## 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:

HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry

For the validation of analytical methods

For the preparation of "working reference samples"

For interference studies and the determination of correction coefficients

For detection limit and linearity studies

For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep tightly sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . Do not pipet from container. Do not return portions removed for pipetting to container.

**Atomic Weight; Valence; Coordination Number; Chemical Form in Solution** - 200.59; +2; 4;  $\text{Hg}(\text{OH})(\text{aq})$  1+

**Chemical Compatibility** - Stable in  $\text{HNO}_3$ . Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

**Stability** - 2-100 ppb levels not stable in 1%  $\text{HNO}_3$  / LDPE container, stable in 10%  $\text{HNO}_3$  packaged in borosilicate glass. 1-100 ppm levels stable in 7%  $\text{HNO}_3$  packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10%  $\text{HNO}_3$  / LDPE container.

**Hg Containing Samples (Preparation and Solution)** - Metal (soluble in  $\text{HNO}_3$ ); Oxide (Soluble in  $\text{HNO}_3$ ); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

**Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):**

Technique/Line	Estimated D.L.	Order	Type	Interferences (underlined indicates severe)
ICP-OES 184.950 nm	0.03 / 0.005 $\mu\text{g/mL}$	1	atom	
ICP-OES 194.227 nm	0.03 / 0.005 $\mu\text{g/mL}$	1	ion	V
ICP-OES 253.652 nm	0.1 / 0.03 $\mu\text{g/mL}$	1	atom	Ta, <u>Co</u> , Th, Rh, Fe, U
ICP-MS 202 amu	9 ppt	n/a	M+	186W16O

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 **HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 **HOMOGENEITY** - This solution was mixed according to an in house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

10.1 **ISO 9001 Quality Management System Registration**  
- QMI File Number 010105

10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**  
- Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**  
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**  
- Domestic Licensing of Production and Utilization Facilities

10.5 **10CFR21 - Nuclear Regulatory Commission**  
- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 **Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability.

11.2 **Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

11.3 **Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: January 03, 2013

Expiration Date: **EXPIRES**

01/03/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders, Product  
Documentation Technician

*Zachary Saunders*

Certificate Approved By: Elizabeth Day, Quality Assurance  
Specialist

*Elizabeth A. Day*

Certifying Officer: Paul Gaines, PhD., Senior Technical  
Director

*Paul R. Gaines*

**Material Safety Data Sheet**

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product #: ICP-080

Last Update: 4/7/2014

**Section I Product Identification**

Name: Mercury Standard

Matrix : water with dilute nitric acid

**Section II Composition / Information on Ingredients**

Component	CAS#	% by Wt.	LD50	OSHA PEL	ACGIH TLV	RTECS #	Codes
water	007732-18-5	97.9	>90 mL/kg oral rat	N/A	N/A	ZC0110000	
nitric acid	007697-37-2	2	N/A	5 mg/m3	5.2 mg/m3	QU5775000	G
mercury, inorganic compounds as Hg	007439-97-6	0.1	26 mg/kg oral rat	0.1 mg/m3	.025 mg/m3	OV4550000	

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen;  
E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

**Section III Hazards Identification**

Irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

**Section IV First Aid Measures**

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing.

Contact: Contact a physician.

Eye Contact: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

**Section V Fire Fighting Measures**

Fire and Explosion Hazard Data for Matrix

Fire Hazard: non-combustible

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

**Section VI Accidental Release Measures**

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

**Section VII Handling and Storage**

Store at Room Temperature (18-25°C)

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

**Section VIII Exposure Controls / Personal Protection**

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

**Section IX Physical and Chemical Properties**

Physical Data for Matrix

Melting Pt.: 0°C

Boiling Pt.: 100°C  
Page 302 of 2470

Density: 1

Vapor Pressure: N/A  
Appearance: colorless liquid  
Auto-Ignition Temperature: N/A

Vapor Density: N/A  
Odor: none  
LEL: N/A

Water Solubility: soluble  
Flash Point: none  
UEL: N/A

**Section X Stability and Reactivity**

Reactivity Data for Matrix

Stability: stable

Incompatibilities:

organic materials  
str. reducing agents  
alkalies  
antimony salts

Hazardous Decomposition Products: NO<sub>2</sub>, NO<sub>3</sub>

Hazardous Effects of Polymerization: none

**Section XI Toxicological Information**

See Section II for specific toxicological information for the ingredients of this product.

**Section XII Ecological Information**

No information is available.

**Section XIII Disposal Considerations**

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

**Section XIV Transport Information**

Shipment Type: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

UN Number: UN3264

Shipping Class: 8

Packing Group: III

**Section XV Regulatory Information**

EU Directives Classification

R: 34

Risk Statements: Causes burns.

S: 23-26-36-45

Safety Statements: Do not breathe gas/fumes/vapour/spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Section XVI Other Information**

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

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Reference Materials Producer  
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material



Chemical Testing  
Cert #2495.02

**Catalog Number:** ZCAL-60-250

**Lot No.** 4-283NY

**Description:** Custom Claritas Standard

**Matrix:** 5% HNO<sub>3</sub> / Tr. Tart. Acid / Tr. HF

This CLARITAS PPT® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

### Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
Ca	1000 mg/L	±5 mg/L	3109a*	Co	2 mg/L	±0.01 mg/L	3113*
K	1000 mg/L	±5 mg/L	3141a*	Cr	2 mg/L	±0.01 mg/L	3112a*
Mg	1000 mg/L	±5 mg/L	3131a*	Cu	2 mg/L	±0.01 mg/L	3114*
Na	1000 mg/L	±5 mg/L	3152a*	Mo	2 mg/L	±0.01 mg/L	3134*
Fe	500 mg/L	±3 mg/L	3126a*	Ni	2 mg/L	±0.01 mg/L	3136*
Si	100 mg/L	±0.5 mg/L	3150*	Pb	2 mg/L	±0.01 mg/L	3128*
Al	10 mg/L	±0.05 mg/L	3101a*	Sb	2 mg/L	±0.01 mg/L	3102a*
Mn	10 mg/L	±0.05 mg/L	3132*	Se	2 mg/L	±0.01 mg/L	3149*
Ag	2 mg/L	±0.01 mg/L	3151*	Sn	2 mg/L	±0.01 mg/L	3161a*
As	2 mg/L	±0.01 mg/L	3103a*	Sr	2 mg/L	±0.01 mg/L	3153a*
B	2 mg/L	±0.01 mg/L	3107*	Ti	2 mg/L	±0.01 mg/L	3162a*
Ba	2 mg/L	±0.01 mg/L	3104a*	Tl	2 mg/L	±0.01 mg/L	3158*
Be	2 mg/L	±0.01 mg/L	3105a*	V	2 mg/L	±0.01 mg/L	3165*
Cd	2 mg/L	±0.01 mg/L	3108*	Zn	2 mg/L	±0.01 mg/L	3168a*

\* - Indicates NIST SRM

† - Indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# ALL8

### Trace Metallic Impurities in the Actual Solution via ICP-MS Analysis:

Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L
Au	<0.9	Ga	2	Ir	<0.3	Pd	<4	Sc	<10	Tm	<0.01
Bi	<3	Gd	<0.2	La	2	Pr	0.04	Sm	<0.5	U	0.2
Ce	1	Ge	<5	Li	<2	Pt	<1	Ta	7	W	<0.7
Cs	<0.4	Hf	<0.7	Lu	<0.04	Rb	30	Tb	<0.07	Y	0.7
Dy	<0.2	Hg	<0.7	Nb	20	Re	<0.3	Te	<1	Yb	<0.01
Er	<0.2	Ho	<0.07	Nd	<0.4	Rh	<2	Th	0.3	Zr	20
Eu	<0.1	In	<0.7	P	<500	Ru	<1				

RJR  
11/15/13

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2013

Certifying Officer: Ray Mifflin

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## 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TAPITT-MSCRI-2

Lot Number: H2-MEB549024

Matrix: 3% (v/v) HNO<sub>3</sub>  
tr HF

Value / Analyte(s): 125 µg/mL ea:  
Si,  
1.25 µg/mL ea:  
B, Mo, Sn, Ti,  
0.5 µg/mL ea:  
Sb

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony	0.4998 ± 0.0038 µg/mL	Boron	1.250 ± 0.011 µg/mL	Molybdenum	1.252 ± 0.011 µg/mL
Silicon	124.9 ± 0.8 µg/mL	Tin	1.251 ± 0.009 µg/mL	Titanium	1.250 ± 0.010 µg/mL

Certified Density: 1.016 g/mL (measured at 20 ± 1 °C)

### Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

##### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

##### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

##### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

#### 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

#### 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.
- HF Note: This standard should not be prepared or stored in glass.

#### 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

#### 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

#### 10.0 QUALITY STANDARD DOCUMENTATION

##### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

##### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

##### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

##### 10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01



10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 24, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES  
01/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

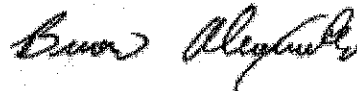
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



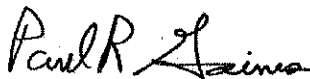
Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



**1.0** INORGANIC VENTURES is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Custom Solution**  
Catalog No.:      TAPITT-MSICSAB-1  
Lot Number:      **H2-MEB524028**  
Matrix:      3% HNO<sub>3</sub>(v/v)

10 µg/mL ea:

Ba,      Be,      Pb,      Sr,      Tl,      V

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Barium, Ba	9.99 ± 0.06 µg/mL	Beryllium, Be	10.00 ± 0.06 µg/mL	Lead, Pb	10.01 ± 0.05 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.06 µg/mL	Vanadium, V	9.99 ± 0.06 µg/mL

**Certified Density:**      1.022      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

· The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928

**4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

#### 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

#### 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

#### 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

#### 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

### 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"

- Chemical Testing - Accredited A2LA Certificate Number 883.01

### 10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

### 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

### 10.5 10CFR21 - Nuclear Regulatory Commission

- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

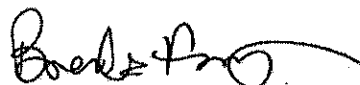
**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: April 04, 2014

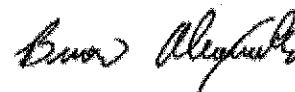
Expiration Date: **EXPIRES**  
01/13/2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Brenda Francis  
Product Documentation Technician



Certificate Approved By: Brian Alexander  
PhD., Technical Process Director



Certifying Officer: Paul Gaines  
PhD., Senior Technical Director



**1.0** INORGANIC VENTURES is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Custom Solution**

Catalog No.:      TAPITT-MSICSAB-2

Lot Number:      **G2-MEB467043**

Matrix:      3% HNO<sub>3</sub>(v/v),  
tr. HF

250 µg/mL ea:

Si,

50 µg/mL ea:

Sn,

25 µg/mL ea:

B,      Se,

10 µg/mL ea:

Sb

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.06 µg/mL	Boron, B	24.98 ± 0.17 µg/mL	Selenium, Se	25.01 ± 0.21 µg/mL
Silicon, Si	249.9 ± 1.6 µg/mL	Tin, Sn	50.04 ± 0.36 µg/mL		

**Certified Density:**      1.018      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

"Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

##### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

**4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

#### 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

#### 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep **Tightly** sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element; Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**HF Note:** This standard should not be prepared or stored in glass.

#### 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

#### 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

- 10.1 ISO 9001 Quality Management System Registration
  - SAI Global File Number 010105
- 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"
  - Chemical Testing - Accredited A2LA Certificate Number 883.01
- 10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"
  - Reference Materials Production - Accredited A2LA Certificate Number 883.02
- 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission
  - Domestic Licensing of Production and Utilization Facilities
- 10.5 10CFR21 - Nuclear Regulatory Commission
  - Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

**Certification Date:** March 08, 2013

**Expiration Date:** **EXPIRES**  
01/2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:** Donna Senn  
Product Documentation Technician

*Donna Senn*

**Certificate Approved By:** Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

**Certifying Officer:** Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*

# 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



# 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: TAPITT-CAL-TRA  
Lot Number: H2-MEB538053  
Matrix: 3% (v/v) HNO<sub>3</sub>  
Value / Analyte(s): 100 µg/mL ea:  
Ag, TI,  
50 µg/mL ea:  
As, Cd, Pb, Sb, Se

REC 7.21.14

# 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	50.01 ± 0.38 µg/mL	Arsenic, As	49.99 ± 0.33 µg/mL	Cadmium, Cd	50.01 ± 0.23 µg/mL
Lead, Pb	50.03 ± 0.25 µg/mL	Selenium, Se	49.99 ± 0.31 µg/mL	Silver, Ag	100.0 ± 0.6 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL				

Certified Density: 1.014 g/mL (measured at 20 ± 1 °C)

## Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean  
 $x_i$  = individual results  
n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.  
 $\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where s stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

# 4.0 TRACEABILITY TO NIST



- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

#### **4.1 Thermometer Calibration**

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

#### **4.2 Balance Calibration**

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

#### **4.3 Glassware Calibration**

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

### **5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)**

N/A

### **6.0 INTENDED USE**

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

### **7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

#### **7.1 Storage and Handling Recommendations**

- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

### **8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

### **9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

### **10.0 QUALITY STANDARD DOCUMENTATION**

#### **10.1 10CFR50 Appendix B - Nuclear Regulatory Commission**

- Domestic Licensing of Production and Utilization Facilities

#### **10.2 10CFR21 - Nuclear Regulatory Commission**

- Reporting defects and Non-Compliance

#### **10.3 ISO 9001 Quality Management System Registration**

- SAI Global File Number 010105

#### **10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

#### **10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

### **11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

#### **11.1 Certification Issue Date**

July 16, 2014

#### **11.2 Expiration Date**

**EXPIRES**  
**01/02/2015**

#### **11.3 Period of Validity**

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

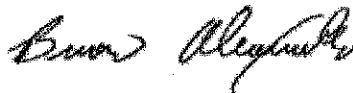
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



**1.0 ACCREDITATION / REGISTRATION**

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).


**2.0 PRODUCT DESCRIPTION**

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TAPITT-CAL-TRC-REV

Lot Number: H2-MEB538055

Matrix: 3% (v/v) HNO<sub>3</sub>

Value / Analyte(s): 200 µg/mL ea:

B,	Ba,	Be,	Co,	Cr3,	Cu,
Li,	Mn,	Ni,	Sr,	V,	Zn

REC 7-21-14

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	200.0 ± 1.0 µg/mL	Beryllium, Be	200.0 ± 1.1 µg/mL	Boron, B	200.0 ± 1.3 µg/mL
Chromium+3, Cr3	200.1 ± 1.0 µg/mL	Cobalt, Co	200.0 ± 1.0 µg/mL	Copper, Cu	200.1 ± 1.3 µg/mL
Lithium, Li	200.0 ± 1.3 µg/mL	Manganese, Mn	200.0 ± 0.9 µg/mL	Nickel, Ni	200.0 ± 1.0 µg/mL
Strontium, Sr	200.0 ± 1.3 µg/mL	Vanadium, V	200.0 ± 1.0 µg/mL	Zinc, Zn	200.0 ± 1.1 µg/mL

Certified Density: 1.023 g/mL (measured at 20 ± 1 °C)

**Assay Information:**

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

##### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

##### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

##### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

#### 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

#### 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

#### 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

#### 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

#### 10.0 QUALITY STANDARD DOCUMENTATION

##### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

##### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

##### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

##### 10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

##### 10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

**11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

**11.1 Certification Issue Date**

July 16, 2014

**11.2 Expiration Date**

**EXPIRES**  
01/2015

**11.3 Period of Validity**

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

**Certificate Prepared By:**

Donna Senn  
Product Documentation Technician

*Donna Senn*

**Certificate Approved By:**

Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

**Certifying Officer:**

Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*

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**1.0** **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0** **DESCRIPTION OF CRM** **Custom Solution**  
Catalog No.: TAPITT-CRA-1DOD  
Lot Number: H2-MEB526045  
Matrix: 5% HNO<sub>3</sub>(v/v)

Rec 5.19.14

500 µg/mL ea:

Ca, K, Mg, Na,

20 µg/mL ea:

Al, Ba,

10 µg/mL ea:

Fe,

5 µg/mL ea:

Co, Li, Sr, V,

4 µg/mL ea:

Ni,

2.5 µg/mL ea:

Cu,

2 µg/mL ea:

Tl, Zn,

1.5 µg/mL ea:

Mn,

1 µg/mL ea:

As, Pb, Se,

0.5 µg/mL ea:

Ag, Cd, Cr<sub>3</sub>,

0.4 µg/mL ea:

Be

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	20.00 ± 0.13 µg/mL	Arsenic, As	1.000 ± 0.007 µg/mL	Barium, Ba	20.00 ± 0.13 µg/mL
Beryllium, Be	0.3998 ± 0.0030 µg/mL	Cadmium, Cd	0.5000 ± 0.0038 µg/mL	Calcium, Ca	500.0 ± 3.0 µg/mL
Chromium+3, Cr <sub>3</sub>	0.5004 ± 0.0035 µg/mL	Cobalt, Co	4.999 ± 0.032 µg/mL	Copper, Cu	2.500 ± 0.016 µg/mL
Iron, Fe	10.00 ± 0.06 µg/mL	Lead, Pb	1.000 ± 0.005 µg/mL	Lithium, Li	5.000 ± 0.025 µg/mL
Magnesium, Mg	500.0 ± 3.8 µg/mL	Manganese, Mn	1.501 ± 0.009 µg/mL	Nickel, Ni	4.000 ± 0.023 µg/mL
Potassium, K	500.0 ± 3.0 µg/mL	Selenium, Se	1.000 ± 0.006 µg/mL	Silver, Ag	0.5004 ± 0.0041 µg/mL

Sodium, Na	500.0 ± 2.9 µg/mL	Strontium, Sr	5.000 ± 0.032 µg/mL	Thallium, Tl	2.000 ± 0.013 µg/mL
Vanadium, V	5.001 ± 0.032 µg/mL	Zinc, Zn	2.000 ± 0.013 µg/mL		

**Certified Density:** 1.031 g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

- This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

## 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123



- 4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).
- 4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.
- 4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

5.0 **TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A**

6.0 **INTENDED USE**

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

7.0 **INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

**Storage & Handling** - Keep Tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do Not pipette from the container. Do Not return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 **HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 **HOMOGENEITY** - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.  
Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

10.0 **QUALITY STANDARD DOCUMENTATION**

- 10.1 **ISO 9001 Quality Management System Registration**  
- SAI Global File Number 010105

- 10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**  
- Chemical Testing - Accredited A2LA Certificate Number 883.01

- 10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**  
- Reference Materials Production - Accredited A2LA Certificate Number 883.02

- 10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**  
- Domestic Licensing of Production and Utilization Facilities

- 10.5 **10CFR21 - Nuclear Regulatory Commission**  
- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

Certification Date: May 09, 2014

Expiration Date:

EXPIRES  
12/2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Christy Shortridge  
Product Documentation Technician

*Christy Shortridge*

Certificate Approved By: Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

Certifying Officer: Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*



# SPEXertificate®

## Certificate of Reference Material



**Catalog Number:** XCAL-59-250

**Lot No.** 24-126CR

**Description:** Custom Assurance Standard

**Matrix:** 10% HNO<sub>3</sub> / Tr. Tart. Acid / Tr. HF

This **ASSURANCE®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

*Rec 522.14*

### Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
K	2500 mg/L	±10 mg/L	3141a*	Ni	50 mg/L	±0.3 mg/L	3136*
Na	2500 mg/L	±10 mg/L	3152a*	Si	50 mg/L	±0.3 mg/L	3150*
Ca	1250 mg/L	±6 mg/L	3109a*	Sn	50 mg/L	±0.3 mg/L	3161a*
Mg	1250 mg/L	±6 mg/L	3131a*	Sr	50 mg/L	±0.3 mg/L	3153a*
Al	625 mg/L	±3 mg/L	3101a*	Ti	50 mg/L	±0.3 mg/L	3162a*
Fe	625 mg/L	±3 mg/L	3126a*	V	50 mg/L	±0.3 mg/L	3165*
B	50 mg/L	±0.3 mg/L	3107*	Zn	50 mg/L	±0.3 mg/L	3168a*
Ba	50 mg/L	±0.3 mg/L	3104a*	Ag	25 mg/L	±0.1 mg/L	3151*
Be	50 mg/L	±0.3 mg/L	3105a*	Tl	25 mg/L	±0.1 mg/L	3158*
Co	50 mg/L	±0.3 mg/L	3113*	As	12.5 mg/L	±0.06 mg/L	3103a*
Cr	50 mg/L	±0.3 mg/L	3112a*	Cd	12.5 mg/L	±0.06 mg/L	3108*
Cu	50 mg/L	±0.3 mg/L	3114*	Pb	12.5 mg/L	±0.06 mg/L	3128*
Li	50 mg/L	±0.3 mg/L	3129a*	Sb	12.5 mg/L	±0.06 mg/L	3102a*
Mn	50 mg/L	±0.3 mg/L	3132*	Se	12.5 mg/L	±0.06 mg/L	3149*
Mo	50 mg/L	±0.3 mg/L	3134*				

\* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# MULTI1LE

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: MAY 2014 Certifying Officer: *Lang Hinfay*

**1.0** **INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0** **DESCRIPTION OF CRM**      **Custom Solution**  
Catalog No.:                      TAPITT-MS-ICPMS  
Lot Number:                      **G2-MEB506053**  
Matrix:                              0.7% HNO<sub>3</sub>(v/v)

200 µg/mL ea:

Al,                      Ba,

100 µg/mL ea:

B,                      Fe,                      Sr,

50 µg/mL ea:

Co,                      Mn,                      Ni,                      V,                      Zn,

25 µg/mL ea:

Cu,

20 µg/mL ea:

Cr<sub>3</sub>,

5 µg/mL ea:

Ag,                      Be,                      Cd,                      Ti,

4 µg/mL ea:

As,

2 µg/mL ea:

Pb,

1 µg/mL ea:

Se

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.3 µg/mL	Arsenic, As	4.002 ± 0.030 µg/mL	Barium, Ba	200.0 ± 1.3 µg/mL
Beryllium, Be	5.002 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.001 ± 0.035 µg/mL
Chromium+3, Cr <sub>3</sub>	20.01 ± 0.13 µg/mL	Cobalt, Co	50.03 ± 0.26 µg/mL	Copper, Cu	26.01 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.001 ± 0.010 µg/mL	Manganese, Mn	50.03 ± 0.32 µg/mL
Nickel, Ni	50.00 ± 0.33 µg/mL	Selenium, Se	1.000 ± 0.007 µg/mL	Silver, Ag	5.002 ± 0.033 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.001 ± 0.034 µg/mL	Vanadium, V	49.99 ± 0.34 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

**Certified Density:**      1.005      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 [\sum (s_i)^2]^{1/2}$$

2 = the coverage factor.

$[\sum (s_i)^2]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

· The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

#### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

**4.2 BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**4.3 THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

#### 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A

## 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep Tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do Not pipette from the container. Do Not return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

## 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

## 9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

### 10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"

- Chemical Testing - Accredited A2LA Certificate Number 883.01

### 10.3 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

### 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

### 10.5 10CFR21 - Nuclear Regulatory Commission

- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

**Certification Date:** December 04, 2013

**Expiration Date:** 

01/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Christy Shortridge  
Product Documentation Technician

*Christy Shortridge*

Certificate Approved By: Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

Certifying Officer: Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*



**1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND THE COMPANY/ UNDERTAKING**

**Product code** TAPITTMS-ICPMS  
**Product name** Multi-element Solution Standard in Dilute Nitric Acid  
**Common Name** Contains: 200 µg/mL ea: Al, Ba; 100 µg/mL ea: B, Fe, Sr; 50 µg/mL ea: Co, Mn, Ni, V, Zn; 25 µg/mL Cu; 20 µg/mL Cr<sup>3</sup>; 5 µg/mL ea: Ag, Be, Cd, Ti; 4 µg/mL As; 2 µg/mL Pb; 1 µg/mL Se  
**Manufacturer, importer, supplier** Inorganic Ventures  
300 Technology Drive  
Christiansburg, VA 24073  
web: www.inorganicventures.com  
**Emergency telephone number** 800-424-9300 CHEMTREC (24 hrs)

**2. COMPOSITION/ INFORMATION ON INGREDIENTS**

CAS	Chemical Name	% Weight	ACGIH*	OSHA*
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	2 ppm TWA	2 ppm TWA; 5 mg/m <sup>3</sup> TWA

\* ACGIH - Occupational Exposure Limits - TWAs

\* OSHA - Final PELs - Time Weighted Averages (TWAs)

**3. HAZARDS IDENTIFICATION**
**Emergency Overview**

- Vapours may be irritating to eyes, nose, throat, and lungs
- Corrosive

<b>Eye contact</b>	• Contact with eyes may cause irritation
<b>Skin contact</b>	• Substance may cause slight skin irritation
<b>Inhalation</b>	• May cause irritation of respiratory tract
<b>Ingestion</b>	• Harmful if swallowed

**4. FIRST AID MEASURES**

<b>General advice</b>	• Show this safety data sheet to the doctor in attendance
<b>Skin contact</b>	<ul style="list-style-type: none"> <li>• Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes</li> <li>• Consult a physician if necessary</li> </ul>
<b>Eye contact</b>	<ul style="list-style-type: none"> <li>• Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes</li> <li>• Keep eye wide open while rinsing</li> <li>• If eye irritation persists, consult a specialist</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>• Move to fresh air in case of accidental inhalation of vapours</li> <li>• If breathing is difficult, give oxygen</li> <li>• Consult a physician if necessary</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>• Call a physician or Poison Control Centre immediately</li> <li>• If swallowed, seek medical advice immediately and show this container or label</li> <li>• If conscious, drink plenty of water</li> </ul>

**5. FIRE-FIGHTING MEASURES**

<b>Flash point</b>	NA
<b>Suitable extinguishing media</b>	• Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Specific hazards	<ul style="list-style-type: none"> <li>Thermal decomposition can lead to release of irritating gases and vapours</li> </ul>
Specific methods	<ul style="list-style-type: none"> <li>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations</li> </ul>
Special protective equipment for firefighters	<ul style="list-style-type: none"> <li>As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear</li> </ul>
NFPA (National Fire Protection Association)	<ul style="list-style-type: none"> <li>Health - 2</li> <li>Fire Hazard - 0</li> <li>Reactivity - 0</li> </ul>
Under conditions giving incomplete combustion, hazardous gases produced may consist of:	<ul style="list-style-type: none"> <li>nitrogen oxides (NOx).</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	<ul style="list-style-type: none"> <li>Evacuate personnel to safe areas</li> <li>Keep people away from and upwind of spill/leak</li> <li>Wear personal protective equipment</li> <li>Ensure adequate ventilation</li> </ul>
Environmental precautions	<ul style="list-style-type: none"> <li>Prevent further leakage or spillage if safe to do so</li> <li>Prevent product from entering drains</li> </ul>
Methods for cleaning up	<ul style="list-style-type: none"> <li>Dam up</li> <li>Neutralize with lime milk or soda and flush with plenty of water</li> <li>Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container</li> <li>After cleaning, flush away traces with water</li> </ul>

## 7. HANDLING AND STORAGE

### Handling

Technical measures/Precautions	<ul style="list-style-type: none"> <li>Use only in area provided with appropriate exhaust ventilation</li> </ul>
Safe handling advice	<ul style="list-style-type: none"> <li>Wear personal protective equipment</li> </ul>

### Storage

Technical measures/Precautions	<ul style="list-style-type: none"> <li>Keep in properly labelled containers</li> <li>Store at room temperature in the original container</li> <li>Keep containers tightly closed in a dry, cool and well-ventilated place</li> </ul>
Incompatible products	<ul style="list-style-type: none"> <li>organic materials</li> <li>reducing agents</li> </ul>

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Personal protective equipment</b>	
Hand protection	<ul style="list-style-type: none"> <li>impervious gloves</li> </ul>
Eye protection	<ul style="list-style-type: none"> <li>tightly fitting safety goggles</li> </ul>
Respiratory protection	<ul style="list-style-type: none"> <li>Ensure adequate ventilation</li> </ul>
Skin and body protection	<ul style="list-style-type: none"> <li>Chemical resistant apron</li> <li>Lab coat</li> </ul>
Hygiene measures	<ul style="list-style-type: none"> <li>When using, do not eat, drink or smoke</li> <li>Regular cleaning of equipment, work area and clothing</li> </ul>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

Form liquid.

Appearance	clear
Colour	yellow tint.
Odour	None.

### Important Health Safety and Environmental Information

pH	0 to 2
Boiling point/range	100°C
Flash point	N/A
Vapour pressure	NA.
Water solubility	miscible.

### 10. STABILITY AND REACTIVITY

Stability	<ul style="list-style-type: none"> <li>Stable under normal conditions</li> <li>Hazardous polymerization does not occur</li> </ul>
Materials to avoid	<ul style="list-style-type: none"> <li>organic materials</li> <li>reducing agents</li> </ul>
Hazardous decomposition products	<ul style="list-style-type: none"> <li>nitrogen oxides (NOx)</li> </ul>

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

#### Component Information

CAS	Chemical Name	% Weight	LD50/oral/rat =	LD50/dermal/rat =
7732-18-5	Water	~99.3	N/A	N/A
7697-37-2	Nitric Acid	~0.7	Inhalation LC50 Rat: 130 mg/kg/4H	Inhalation LC50 Rat: 130 mg/kg/4H

#### Product Information

<u>Local effects</u>	
Skin irritation	May cause skin irritation and/or dermatitis.
Eye irritation	May cause eye irritation with susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic toxicity	Avoid repeated exposure.

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity effects

#### Component Information

CAS	Chemical Name	% Weight	EFAD*	EFFSD*	EMD - Ecotoxicity*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	N/A	N/A

\* EFAD - Ecotoxicity - Freshwater Algae Data

\* EFFSD - Ecotoxicity - Freshwater Fish Species Data

\* EMD - Ecotoxicity - Microtox Data

#### Product Information

Do not allow material to contaminate ground water or sewage system

#### Other information

### 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	<ul style="list-style-type: none"> <li>In accordance with local and national regulations</li> </ul>
Contaminated packaging	<ul style="list-style-type: none"> <li>Empty containers should be taken for local recycling, recovery or waste disposal</li> </ul>

#### 14. TRANSPORT INFORMATION

##### DOT

UN-No UN3264 / Class 8  
 Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s  
 Packing group III

##### IATA-DGR

UN-No UN3264 / Class 8  
 Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s  
 Packing group III

#### 15. REGULATORY INFORMATION

##### U.S. INVENTORIES:

CAS	Chemical Name	% Weight	CPCL*	NJRTK*	CERCLA/SARA*
7732-18-5	Water	~99.3	N/A	N/A	N/A
7697-37-2	Nitric Acid	~0.7	N/A	sn 1356	1000 lb final RQ; 454 kg final RQ

\* CPCL - California - Proposition 65 - Carcinogens List

\* NJRTK - New Jersey - Department of Health RTK List

\* CERCLA/SARA - Hazardous Substances and their Reportable Quantities

##### INTERNATIONAL INVENTORIES:

CAS	Chemical Name	% Weight	WHMIS*	EINECCS - European Union*
7732-18-5	Water	~99.3	Uncontrolled product according to WHMIS classification criteria	231-791-2
7697-37-2	Nitric Acid	~0.7	C; E (including 60%, 61.3%, 63%, 67%, 67.18%, 70%, 90%); E (10%)	231-714-2

\* WHMIS - Canada - WHMIS - Classifications of Substances

\* EINECCS - European Union - European inventory of Existing Commercial Chemical Substances (EINECCS)

#### 16. OTHER INFORMATION

The above information is believed to be accurate and represents the best information available to us. It has been compiled from the data presented in various technical publications and our experience and should only be used as a guide for handling this product. It is the user's responsibility to determine the suitability of this information for their particular purposes. We assume that only qualified individuals, trained and familiar with procedures suitable to this product will handle this material. Inorganic Ventures, Inc. assumes no responsibility and shall not be held liable for any damage resulting from misuse of this product.

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**1.0 INORGANIC VENTURES** is an ISO Guide 34 "General Requirements for the Competence of Reference Material Producers" and ISO 9001 registered manufacturer. Our manufacturing laboratory is accredited to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories."



**2.0 DESCRIPTION OF CRM**      **Custom Solution**  
Catalog No.:      TAPITT-ICS-B  
Lot Number:      H2-MEB514030  
Matrix:      3% HNO<sub>3</sub>(v/v)

REC 2.19.14

100 µg/mL ea:

K,      Na,

10 µg/mL ea:

Ag,      As,      Cd,      Ni,      Pb,      Se,      Zn,

5 µg/mL ea:

Ba,      Be,      Co,      Cr<sub>3</sub>,      Cu,      Mn,      V

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Arsenic, As	10.00 ± 0.06 µg/mL	Barium, Ba	4.996 ± 0.032 µg/mL	Beryllium, Be	5.002 ± 0.028 µg/mL
Cadmium, Cd	10.00 ± 0.06 µg/mL	Chromium+3, Cr <sub>3</sub>	5.002 ± 0.028 µg/mL	Cobalt, Co	4.995 ± 0.032 µg/mL
Copper, Cu	5.003 ± 0.032 µg/mL	Lead, Pb	10.00 ± 0.05 µg/mL	Manganese, Mn	5.003 ± 0.032 µg/mL
Nickel, Ni	9.99 ± 0.06 µg/mL	Potassium, K	99.9 ± 0.4 µg/mL	Selenium, Se	10.00 ± 0.07 µg/mL
Silver, Ag	10.00 ± 0.07 µg/mL	Sodium, Na	100.0 ± 0.4 µg/mL	Vanadium, V	5.004 ± 0.032 µg/mL
Zinc, Zn	10.00 ± 0.06 µg/mL				

**Certified Density:**      1.015      g/mL (measured at 20 ± 1° C)

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

x<sub>i</sub> = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

"Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a NIST SRM/RM. See section 4.2 for balance traceability.

##### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

- 4.2 **BALANCE CALIBRATION** - All analytical balances are calibrated yearly by an accredited calibration laboratory and are traceable to a class E 2 analytical weight set with NIST Traceability. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).
- 4.3 **THERMOMETER CALIBRATION** - All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.
- 4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

**5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN µg/mL - N/A**

**6.0 INTENDED USE**

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

**7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

**Storage & Handling** - Keep Tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do Not pipette from the container. Do Not return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

**8.0 HAZARDOUS INFORMATION** - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

**9.0 HOMOGENEITY** - This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.  
Inorganic Ventures homogeneity data indicate that the end user should take a minimum sample size of 0.2mL to assure homogeneity.

**10.0 QUALITY STANDARD DOCUMENTATION**

- 10.1 **ISO 9001 Quality Management System Registration**  
- SAI Global File Number 010105
- 10.2 **ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration"**  
- Chemical Testing - Accredited A2LA Certificate Number 883.01
- 10.3 **ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**  
- Reference Materials Production - Accredited A2LA Certificate Number 883.02
- 10.4 **10CFR50 Appendix B - Nuclear Regulatory Commission**  
- Domestic Licensing of Production and Utilization Facilities
- 10.5 **10CFR21 - Nuclear Regulatory Commission**  
- Reporting Defects and Non-Compliance

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

**Certification Date:** February 12, 2014

**Expiration Date:** **EXPIRES**  
01<sup>st</sup> 2015

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:** Christy Shortridge  
Product Documentation Technician

*Christy Shortridge*

**Certificate Approved By:** Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

**Certifying Officer:** Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*



### 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



### 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: TAPITT-MS-A  
Lot Number: H2-MEB532044  
Matrix: 3% (v/v) HNO<sub>3</sub>  
Value / Analyte(s): 5 000 µg/mL ea:  
Ca, K, Mg, Na

*Rec'd 9/24/14 RAR*

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 22 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Sodium, Na	5 000 ± 22 µg/mL				

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

#### Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na <sup>+</sup>	ICP Assay	3152a	120715

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean  
 $x_i$  = individual results  
n = number of measurements  
2 = the coverage factor.

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

- 4.1 Thermometer Calibration**
- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.
- 4.2 Balance Calibration**
- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.
- 4.3 Glassware Calibration**
- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.
- 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)**
- N/A
- 6.0 INTENDED USE**
- For the calibration of analytical instruments and validation of analytical methods as appropriate.
- 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**
- 7.1 Storage and Handling Recommendations**
- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.
- 8.0 HAZARDOUS INFORMATION**
- Please refer to the Safety Data Sheet for information regarding this CRM/RM.
- 9.0 HOMOGENEITY**
- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.
- 10.0 QUALITY STANDARD DOCUMENTATION**
- 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission**
- Domestic Licensing of Production and Utilization Facilities
- 10.2 10CFR21 - Nuclear Regulatory Commission**
- Reporting defects and Non-Compliance
- 10.3 ISO 9001 Quality Management System Registration**
- SAI Global File Number 010105
- 10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**
- Chemical Testing - Accredited / A2LA Certificate Number 883.01
- 10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**
- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

**11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

**11.1 Certification Issue Date**

June 05, 2014

**11.2 Period of Validity**

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

**11.3 Expiration Date**

**EXPIRES**

1<sup>st</sup> 2015

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

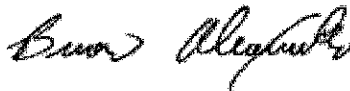
**Certificate Prepared By:**

Donna Senn  
Product Documentation Technician



**Certificate Approved By:**

Brian Alexander  
PhD., Technical Process Director



**Certifying Officer:**

Paul Gaines  
PhD., Senior Technical Director



#1222848  
849

## 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TAPITT-MS-B-REV

Lot Number: G2-MEB506052

Matrix: 1% (v/v) HNO<sub>3</sub>

Value / Analyte(s): 200 µg/mL ea:

Al, Ba,

100 µg/mL ea:

B, Fe, Li, Sr,

50 µg/mL ea:

As, Co, Mn, Ni, Pb, Se,

Ti,

V,

Zn,

25 µg/mL ea:

Cu,

20 µg/mL ea:

Cr<sub>3</sub>,

5 µg/mL ea:

Ag,

Be,

Cd

Rec'd  
6/17/14  
RJR

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.3 µg/mL	Arsenic, As	50.00 ± 0.33 µg/mL	Barium, Ba	200.0 ± 1.3 µg/mL
Beryllium, Be	4.997 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	4.998 ± 0.034 µg/mL
Chromium+3, Cr <sub>3</sub>	20.00 ± 0.13 µg/mL	Cobalt, Co	50.00 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.6 µg/mL	Lead, Pb	49.99 ± 0.39 µg/mL	Lithium, Li	100.0 ± 0.7 µg/mL
Manganese, Mn	49.99 ± 0.38 µg/mL	Nickel, Ni	49.99 ± 0.38 µg/mL	Selenium, Se	50.03 ± 0.31 µg/mL
Silver, Ag	5.000 ± 0.033 µg/mL	Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	50.00 ± 0.33 µg/mL
Vanadium, V	49.99 ± 0.34 µg/mL	Zinc, Zn	49.98 ± 0.28 µg/mL		

Certified Density: 1.007 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	Calculated		See Sec. 4.2
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3169a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean  
 $x_i$  = individual results  
 $n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$2$  = the coverage factor.  
 $\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

##### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

##### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

##### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

**5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)**

N/A

**6.0 INTENDED USE**

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

**7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

**7.1 Storage and Handling Recommendations**

- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^{\circ}\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

**8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

**9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

**10.0 QUALITY STANDARD DOCUMENTATION**

**10.1 10CFR50 Appendix B - Nuclear Regulatory Commission**

- Domestic Licensing of Production and Utilization Facilities

**10.2 10CFR21 - Nuclear Regulatory Commission**

- Reporting defects and Non-Compliance

**10.3 ISO 9001 Quality Management System Registration**

- SAI Global File Number 010105

**10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

**10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

**11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

**11.1 Certification Issue Date**

December 04, 2013

**11.2 Expiration Date**

EXPIRES  
01/2015

**11.3 Period of Validity**

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

**Certificate Prepared By:**

Christy Shortridge  
Product Documentation Technician

*Christy Shortridge*

**Certificate Approved By:**

Brian Alexander  
PhD., Technical Process Director

*Brian Alexander*

**Certifying Officer:**

Paul Gaines  
PhD., Senior Technical Director

*Paul R. Gaines*



300 Technology Drive  
Christiansburg, VA 24073 - USA  
inorganicventures.com

1331637/1331638/1331639  
CERTIFICATE OF ANALYSIS

tel: 800 669 6799 - 540.585.3030

fax: 540.585.3012

info@inorganicventures.com

### 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



### 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: TAPITT-MS-C  
Lot Number: H2-MEB532046  
Matrix: 3% (v/v) HNO<sub>3</sub>  
tr. HF  
Value / Analyte(s): 1 000 µg/mL ea:  
Si,  
200 µg/mL ea:  
Sn,  
100 µg/mL ea:  
Mo, Ti,  
50 µg/mL ea:  
Sb

Rec'd  
9/24/14  
RR

### 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	49.98 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL	Silicon, Si	1 000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

#### Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .



$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

#### 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

##### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

##### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

##### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

#### 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

#### 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.
- HF Note: This standard should not be prepared or stored in glass.

#### 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

#### 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

#### 10.0 QUALITY STANDARD DOCUMENTATION

##### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

##### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

##### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

##### 10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES

1<sup>st</sup> 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

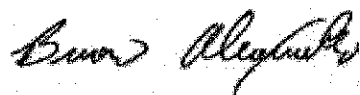
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director





**CERTIFIED REFERENCE MATERIAL**

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568719 **Lot No.:** A0100240

**Description :** OCP/PCB Surrogate Mix RTS  
OCP/PCB Surrogate Mix RTS 0.2 µg/ml, Methanol, 100 ml/bottle

**Container Size :** 100 mL **Pkg Amt:** > 100 mL

**Expiration Date :** December 31, 2016 **Storage:** 10°C or colder

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)				
1	2,4,5,6-Tetrachloro-m-xylene	0.2 µg/mL	+/-	0.0025	µg/mL	Gravimetric	
	CAS # 877-09-8 (Lot 0052481)		+/-	0.0066	µg/mL	Unstressed	
	Purity 98%		+/-	0.0086	µg/mL	Stressed	
2	Decachlorobiphenyl (BZ# 209)	0.2 µg/mL	+/-	0.0025	µg/mL	Gravimetric	
	CAS # 2051-24-3 (Lot ER071509-01)		+/-	0.0067	µg/mL	Unstressed	
	Purity 99%		+/-	0.0086	µg/mL	Stressed	

**Solvent:** Methanol  
CAS # 67-56-1  
Purity 99%



*SV Benzo(e)pyrene primary*  
**100313**

**CERTIFIED WEIGHT REPORT**

**Part Number:** 71016  
**Lot Number:** 100313  
**Description:** Benzo(e)pyrene  
**Expiration Date:** 100318  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 1000

**Solvent(s):** 44325 Methylene chloride

Weight(s) shown below were combined and diluted to:

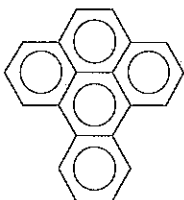
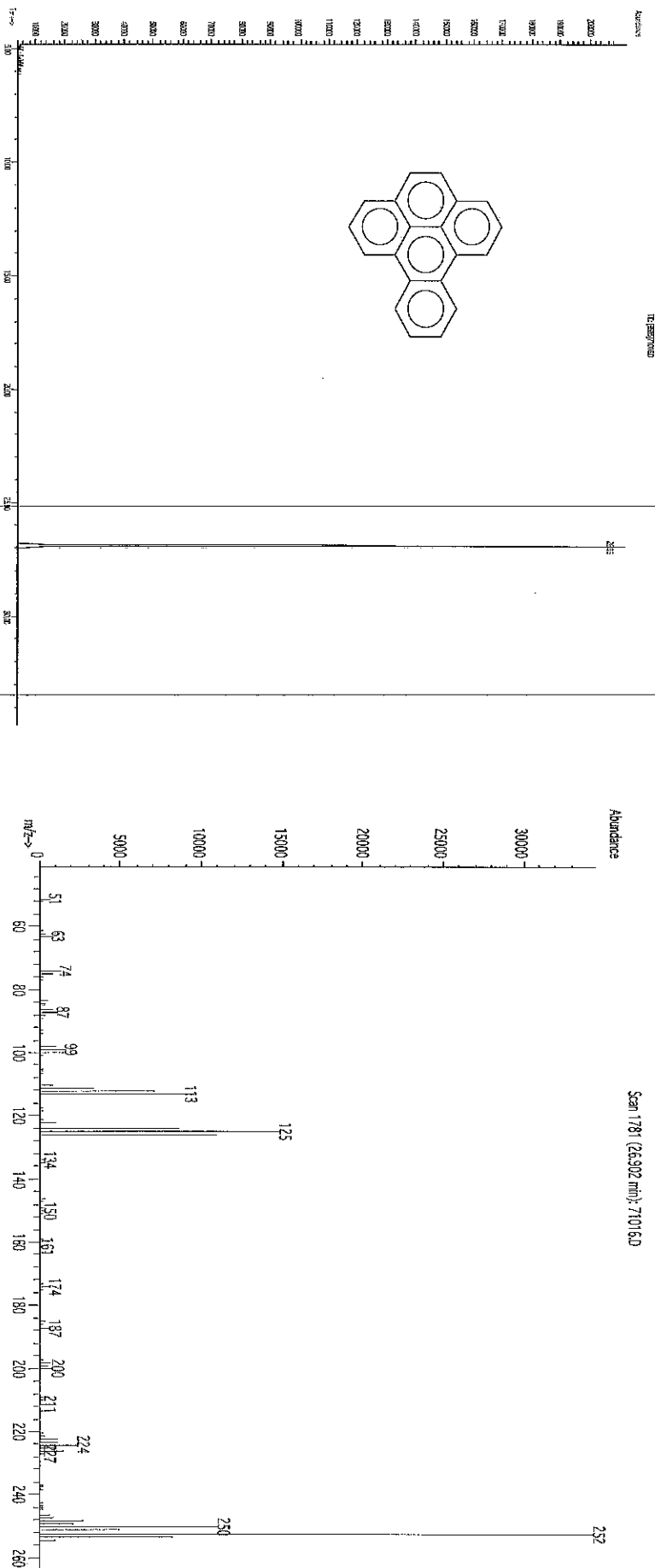
100.0 0.003 SE-05 Balance Uncertainty  
Fask Uncertainty

<i>Paul Barron</i>	
Formulated By: Paul Barron	100313
DATE	
Reviewed By: <i>Pedro L. Rentas</i>	100313
DATE	

**MSDS Information**

Compound	Lot	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	(Solvent Safety Info. On Attached pg.)
1. Benzo(e)pyrene	1016 012011	1000	99	0.2	0.10100	0.10125	1002.5	0.0042	00192-97-2 N/A N/A

**Method GC/MSD-3.M:** Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



# Certificate of Analysis

## 2-Naphthylamine Solution

**Product Number:** EPA-1135

**Page:** 1 of 1

**Lot Number:** CK-1617

**Lot Issue Date:** 20-May-2013

**Expiration Date:** 30-Jun-2017

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2-naphthylamine	000091-59-8	RM06488	1001 ± 5 µg/mL

**Matrix:** methanol (methyl alcohol)

**Storage:** Store at Room Temperature (15-30°C)

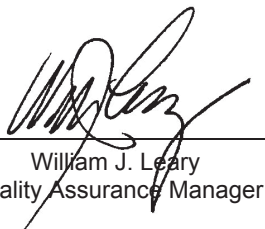
ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 17025:2005  
Accredited  
A2LA  
Cert. No. 0851-01

ISO 9001:2008  
Registered  
TUV USA, Inc.  
Cert. No. 09-1009

250 Smith Street, North Kingstown, RI 02852 USA  
401-294-9400 Fax: 295-2330  
www.ultrasci.com



William J. Leary  
Quality Assurance Manager



110 Benner Circle  
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Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

SV/Vintest/1st A093676



## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567684 Lot No.: A093676  
Description : 8270 Internal Standard  
8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul  
Container Size : 5 mL Pkg Amt: > 5 mL  
Expiration Date : February 2018 Storage: 10°C or colder  
Handling: Sonication required. Mix is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	92.7158	µg/mL	Unstressed
			+/-	101.3766	µg/mL	Stressed
2	Naphthalene-d8 CAS # 1146-65-2 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	92.7158	µg/mL	Unstressed
			+/-	101.3766	µg/mL	Stressed
3	Acenaphthene-d10 CAS # 15067-26-2 Purity 97%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	92.7163	µg/mL	Unstressed
			+/-	101.3771	µg/mL	Stressed
4	Phenanthrene-d10 CAS # 1517-22-2 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	92.7158	µg/mL	Unstressed
			+/-	101.3766	µg/mL	Stressed
5	Chrysene-d12 CAS # 1719-03-5 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	92.7150	µg/mL	Unstressed
			+/-	101.3758	µg/mL	Stressed
6	Perylene-d12 CAS # 1520-96-3 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	92.7158	µg/mL	Unstressed
			+/-	101.3766	µg/mL	Stressed

Solvent: Methylene Chloride  
CAS # 75-09-2  
Purity 99%

Column:  
30m x .25mm x .25um  
Stw-5 (cat.#10223)

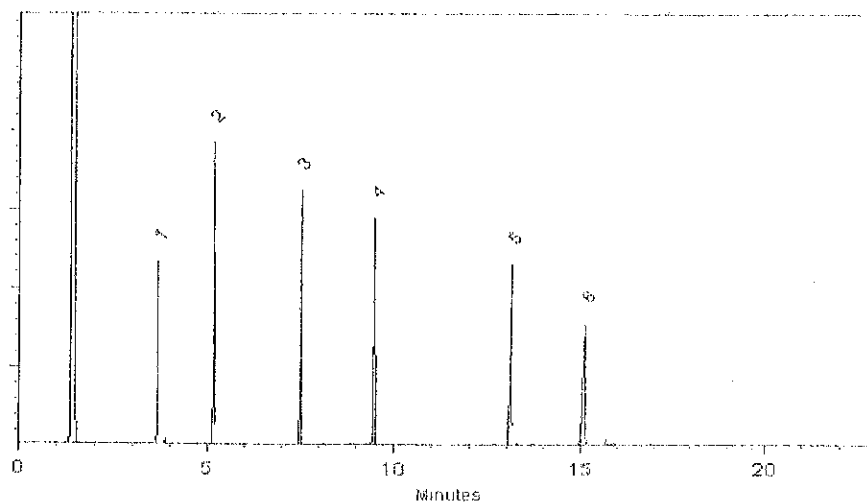
Carrier Gas:  
Hydrogen-constant pressure 10 psi.

Temp. Program:  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

Inj. Temp:  
250°C

Det. Temp:  
330°C

Det. Type:  
FID



*Jodi E. Breon*  
Jodi E. Breon - QA Analyst

Date Passed: 27-Feb-2013

Balance: 1128342315

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567679 Lot No.: A0102912  
Description : 8270 List 2 / Std #2  
8270 List 2 / Std #2 1,000 ug/ml, Methylene Chloride, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : April 30, 2015 Storage: 10°C or colder  
Handling: Sonication required. Mix is photosensitive.

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl methanesulfonate CAS # 66-27-3 (Lot MKBJ8702V) Purity 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL Gravimetric +/- 31.2232 µg/mL Unstressed +/- 32.8038 µg/mL Stressed		
2	Ethyl methanesulfonate CAS # 62-50-0 (Lot FIN01-LVQL) Purity 99%	1,007.0 µg/mL	+/- 5.9813 µg/mL Gravimetric +/- 31.3165 µg/mL Unstressed +/- 32.9019 µg/mL Stressed		
3	Pentachloroethane CAS # 76-01-7 (Lot 7GHYB) Purity 99%	1,000.0 µg/mL	+/- 5.9397 µg/mL Gravimetric +/- 31.0988 µg/mL Unstressed +/- 32.6732 µg/mL Stressed		
4	2,6-Dichlorophenol CAS # 87-65-0 (Lot 03518LN) Purity 99%	1,000.0 µg/mL	+/- 5.9397 µg/mL Gravimetric +/- 31.0988 µg/mL Unstressed +/- 32.6732 µg/mL Stressed		
5	Hexachloropropene CAS # 1888-71-7 (Lot 44391/3) Purity 99%	1,000.0 µg/mL	+/- 5.9397 µg/mL Gravimetric +/- 31.0988 µg/mL Unstressed +/- 32.6732 µg/mL Stressed		
6	Isosafrole (cis & trans) CAS # 120-58-1 (Lot MKBK3786V) Purity 98% 83% trans; 17% cis	999.6 µg/mL	+/- 5.9373 µg/mL Gravimetric +/- 31.0863 µg/mL Unstressed +/- 32.6601 µg/mL Stressed		
7	1-Chloronaphthalene CAS # 90-13-1 (Lot MYWUK) Purity 99%	1,001.0 µg/mL	+/- 5.9456 µg/mL Gravimetric +/- 31.1299 µg/mL Unstressed +/- 32.7058 µg/mL Stressed		
8	1,4-Naphthoquinone CAS # 130-15-4 (Lot 3232134094) Purity 99%	999.0 µg/mL	+/- 5.9338 µg/mL Gravimetric +/- 31.0677 µg/mL Unstressed +/- 32.6405 µg/mL Stressed		



**Column:**

30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

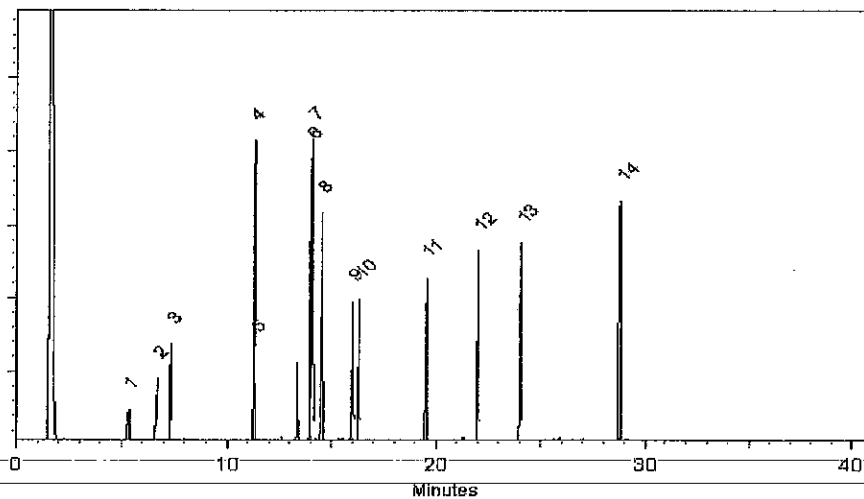
250°C

**Det. Temp:**

330°C

**Det. Type:**

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*F. Joseph Tallon*  
F. Joseph Tallon - Mix Technician

Date Mixed: 23-Apr-2014

Balance: 1128360905

*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 29-Apr-2014

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# Certificate of Analysis



## FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567672.sec **Lot No.:** A099449

**Description :** 8270 List 1 / Std #1 MegaMix

8270 List 1 / Std #1 MegaMix 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** May 31, 2015 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive.

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1.SEC (Lot 2RHVG) Purity 99%	1,001.2 µg/mL	+/- 5.8343 µg/mL Gravimetric +/- 6.6955 µg/mL Unstressed +/- 16.4425 µg/mL Stressed
2	Pyridine CAS # 110-86-1.SEC (Lot QN8DK) Purity 99%	1,000.7 µg/mL	+/- 5.8314 µg/mL Gravimetric +/- 6.6922 µg/mL Unstressed +/- 16.4343 µg/mL Stressed
3	N-Nitrosodimethylamine CAS # 62-75-9.SEC (Lot 31C7) Purity 99%	1,001.7 µg/mL	+/- 5.8372 µg/mL Gravimetric +/- 6.6989 µg/mL Unstressed +/- 16.4507 µg/mL Stressed
4	Aniline CAS # 62-53-3.SEC (Lot ZCD3N) Purity 99%	1,000.7 µg/mL	+/- 5.8314 µg/mL Gravimetric +/- 6.6922 µg/mL Unstressed +/- 16.4343 µg/mL Stressed
5	Phenol CAS # 108-95-2.SEC (Lot EDPYN) Purity 99%	1,000.7 µg/mL	+/- 5.8314 µg/mL Gravimetric +/- 6.6922 µg/mL Unstressed +/- 16.4343 µg/mL Stressed
6	Bis(2-chloroethyl)ether CAS # 111-44-4.SEC (Lot FA010143) Purity 99%	1,001.0 µg/mL	+/- 5.8333 µg/mL Gravimetric +/- 6.6944 µg/mL Unstressed +/- 16.4397 µg/mL Stressed
7	2-Chlorophenol CAS # 95-57-8.SEC (Lot GJ01) Purity 99%	1,000.2 µg/mL	+/- 5.8285 µg/mL Gravimetric +/- 6.6888 µg/mL Unstressed +/- 16.4261 µg/mL Stressed
8	1,3-Dichlorobenzene CAS # 541-73-1.SEC (Lot FMDFD-KA) Purity 99%	1,000.8 µg/mL	+/- 5.8324 µg/mL Gravimetric +/- 6.6933 µg/mL Unstressed +/- 16.4370 µg/mL Stressed

25	Bis(2-chloroethoxy)methane CAS # 111-91-1 * Purity 99%	(Lot 317200)	1,000.0 µg/mL	+/- +/- +/-	5.8275 6.6877 16.4233	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	2,4-Dichlorophenol CAS # 120-83-2.SEC Purity 99%	(Lot FHM01)	1,000.5 µg/mL	+/- +/- +/-	5.8304 6.6911 16.4315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot OGO01)	1,000.3 µg/mL	+/- +/- +/-	5.8295 6.6899 16.4288	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot 4KW3H-OO)	1,000.0 µg/mL	+/- +/- +/-	5.8275 6.6877 16.4233	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	4-Chloroaniline CAS # 106-47-8.SEC Purity 99%	(Lot 10171860)	1,001.0 µg/mL	+/- +/- +/-	5.8333 6.6944 16.4397	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 2009400)	1,000.7 µg/mL	+/- +/- +/-	5.8317 6.6925 16.4351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,000.7 µg/mL	+/- +/- +/-	5.8314 6.6922 16.4343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7.SEC Purity 99%	(Lot FDO02)	1,000.0 µg/mL	+/- +/- +/-	5.8275 6.6877 16.4233	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1-Methylnaphthalene CAS # 90-12-0.SEC Purity 99%	(Lot UATSA)	1,000.7 µg/mL	+/- +/- +/-	5.8314 6.6922 16.4343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3.SEC Purity 99%	(Lot AF02)	1,001.2 µg/mL	+/- +/- +/-	5.8343 6.6955 16.4425	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4.SEC Purity 99%	(Lot 0012013)	1,001.5 µg/mL	+/- +/- +/-	5.8363 6.6977 16.4480	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2.SEC Purity 98%	(Lot UUMYM)	1,003.0 µg/mL	+/- +/- +/-	5.8452 6.7080 16.4731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4.SEC Purity 99%	(Lot MKBG3862V)	1,000.0 µg/mL	+/- +/- +/-	5.8275 6.6877 16.4233	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	2-Chloronaphthalene CAS # 91-58-7.SEC Purity 99%	(Lot LB89364V)	1,000.7 µg/mL	+/- +/- +/-	5.8314 6.6922 16.4343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Biphenyl CAS # 92-52-4.SEC Purity 99%	(Lot 330QE)	1,001.2 µg/mL	+/- +/- +/-	5.8343 6.6955 16.4425	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	2-Nitroaniline CAS # 88-74-4.SEC Purity 99%	(Lot T6E7B)	1,000.3 µg/mL	+/- +/- +/-	5.8295 6.6899 16.4288	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

73	Benzo(b)fluoranthene CAS # 205-99-2.SEC Purity 97%	(Lot 012012)	1,000.4 µg/mL	+/- 5.8298 +/- 6.6903 +/- 16.4298	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Benzo(k)fluoranthene CAS # 207-08-9.SEC Purity 99%	(Lot 022011)	1,000.7 µg/mL	+/- 5.8314 +/- 6.6922 +/- 16.4343	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Benzo(a)pyrene CAS # 50-32-8.SEC Purity 99%	(Lot 2IGMD)	1,000.2 µg/mL	+/- 5.8285 +/- 6.6888 +/- 16.4261	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Indeno(1,2,3-cd)pyrene CAS # 193-39-5.SEC Purity 99%	(Lot 012011)	1,001.3 µg/mL	+/- 5.8353 +/- 6.6966 +/- 16.4452	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
77	Dibenz(a,h)anthracene CAS # 53-70-3.SEC Purity 99%	(Lot 0012012)	1,000.5 µg/mL	+/- 5.8304 +/- 6.6911 +/- 16.4315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
78	Benzo(g,h,i)perylene CAS # 191-24-2 * Purity 99%	(Lot ER020708-08)	1,001.5 µg/mL	+/- 5.8363 +/- 6.6977 +/- 16.4480	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

**Solvent:** Methylene Chloride  
CAS # 75-09-2  
Purity 99%

\* Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.

**Specific Reference Material Notes:**

The Bis(2-chloroisopropyl)ether contains a 28% impurity of Propane, 1,1'-oxybis-, 3-chloro.

**Column:**  
30m x 0.25mm x 0.25um  
Rtx-5 (cat.#10223)

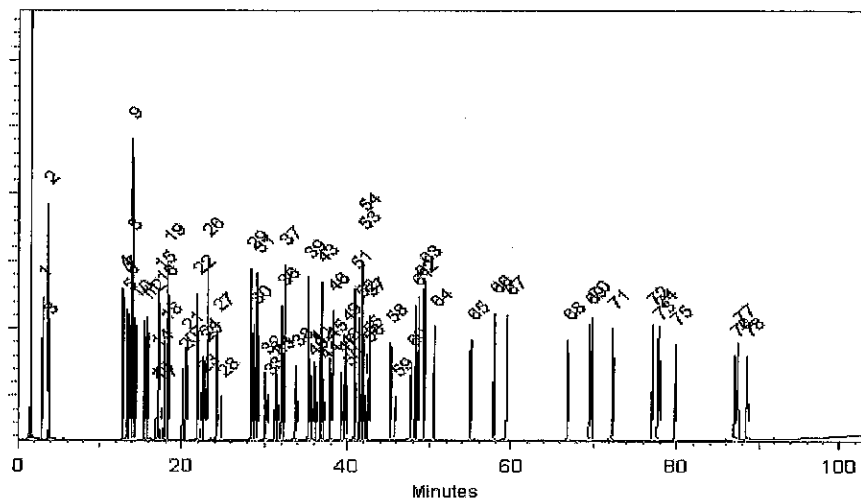
**Carrier Gas:**  
hydrogen-constant pressure 10 psi

**Temp. Program:**  
35°C (hold 3 min.) to 330°C  
@ 3°C/min. (hold 3 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
300°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen to guarantee product quality. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Michael Maje*

**Date Mixed:** 12-Nov-2013 **Balance:** 1128353505

*Jennifer L. Pollino*

Jennifer L. Pollino - QC Analyst

**Date Passed:** 20-Nov-2013

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567672 Lot No.: A0101615  
Description : 8270 List 1 / Std #1 MegaMix  
8270 List 1 / Std #1 MegaMix 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul  
Container Size : 5 mL Pkg Amt: > 5 mL  
Expiration Date : August 31, 2015 Storage: 10°C or colder  
Handling: Sonication required. Mix is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1 (Lot SHBD4119V) Purity 99%	1,006.4 µg/mL	+/- 5.8510 µg/mL Gravimetric +/- 11.0182 µg/mL Unstressed +/- 18.6887 µg/mL Stressed
2	Pyridine CAS # 110-86-1 (Lot 02718MW) Purity 99%	1,001.7 µg/mL	+/- 5.8237 µg/mL Gravimetric +/- 10.9668 µg/mL Unstressed +/- 18.6014 µg/mL Stressed
3	N-Nitrosodimethylamine CAS # 62-75-9 (Lot 2179300) Purity 99%	1,001.4 µg/mL	+/- 5.8222 µg/mL Gravimetric +/- 10.9640 µg/mL Unstressed +/- 18.5968 µg/mL Stressed
4	Aniline CAS # 62-53-3 (Lot 68396APV) Purity 99%	1,009.3 µg/mL	+/- 5.8682 µg/mL Gravimetric +/- 11.0505 µg/mL Unstressed +/- 18.7435 µg/mL Stressed
5	Phenol CAS # 108-95-2 (Lot SHBC6998V) Purity 99%	1,009.5 µg/mL	+/- 5.8690 µg/mL Gravimetric +/- 11.0522 µg/mL Unstressed +/- 18.7463 µg/mL Stressed
6	Bis(2-chloroethyl)ether CAS # 111-44-4 (Lot 45296HKV) Purity 99%	1,005.2 µg/mL	+/- 5.8440 µg/mL Gravimetric +/- 11.0051 µg/mL Unstressed +/- 18.6664 µg/mL Stressed
7	2-Chlorophenol CAS # 95-57-8 (Lot MKBD3900V) Purity 99%	1,006.4 µg/mL	+/- 5.8510 µg/mL Gravimetric +/- 11.0182 µg/mL Unstressed +/- 18.6887 µg/mL Stressed
8	1,3-Dichlorobenzene CAS # 541-73-1 (Lot BCBC1891V) Purity 99%	1,009.2 µg/mL	+/- 5.8673 µg/mL Gravimetric +/- 11.0489 µg/mL Unstressed +/- 18.7407 µg/mL Stressed

25	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 2238100)	1,006.3 µg/mL	+/- +/- +/-	5.8507 11.0177 18.6878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBH1617V)	1,009.7 µg/mL	+/- +/- +/-	5.8705 11.0549 18.7509	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	1,000.7 µg/mL	+/- +/- +/-	5.8179 10.9558 18.5829	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	1,001.0 µg/mL	+/- +/- +/-	5.8196 10.9591 18.5884	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	4-Chloroaniline CAS # 106-47-8 Purity 98%	(Lot 12528PH)	999.5 µg/mL	+/- +/- +/-	5.8112 10.9432 18.5615	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	1,001.9 µg/mL	+/- +/- +/-	5.8249 10.9690 18.6052	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot 19399MJV)	1,006.1 µg/mL	+/- +/- +/-	5.8497 11.0158 18.6846	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	4-Chloro-3-methylphenol CAS # 59-50-7 Purity 99%	(Lot STBC0769V)	1,004.2 µg/mL	+/- +/- +/-	5.8382 10.9941 18.6479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1-Methylnaphthalene CAS # 90-12-0 Purity 99%	(Lot 5250.00-10)	1,000.6 µg/mL	+/- +/- +/-	5.8173 10.9547 18.5810	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2,4,5-Tetrachlorobenzene CAS # 95-94-3 Purity 99%	(Lot 06024AIV)	1,002.1 µg/mL	+/- +/- +/-	5.8263 10.9717 18.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99%	(Lot 2220500)	1,009.5 µg/mL	+/- +/- +/-	5.8690 11.0522 18.7463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2,4,6-Trichlorophenol CAS # 88-06-2 Purity 99%	(Lot MKBH7393V)	1,003.6 µg/mL	+/- +/- +/-	5.8350 10.9881 18.6376	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2,4,5-Trichlorophenol CAS # 95-95-4 Purity 99%	(Lot FHM01)	1,008.9 µg/mL	+/- +/- +/-	5.8658 11.0461 18.7361	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	2-Chloronaphthalene CAS # 91-58-7 Purity 99%	(Lot FIJ01)	1,004.8 µg/mL	+/- +/- +/-	5.8417 11.0007 18.6590	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Biphenyl CAS # 92-52-4 Purity 99%	(Lot 1277976)	1,005.6 µg/mL	+/- +/- +/-	5.8464 11.0095 18.6739	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	2-Nitroaniline CAS # 88-74-4 Purity 99%	(Lot MKBF9132V)	1,007.1 µg/mL	+/- +/- +/-	5.8551 11.0259 18.7017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

57	Azobenzene CAS # 103-33-3 Purity 99%	(Lot 130305JLM)	1,006.5 µg/mL	+/- +/- +/-	5.8516 11.0193 18.6906	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 99%	(Lot STBB9729V)	1,003.7 µg/mL	+/- +/- +/-	5.8353 10.9887 18.6386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	Hexachlorobenzene CAS # 118-74-1 Purity 99%	(Lot LB93343V)	1,008.0 µg/mL	+/- +/- +/-	5.8606 11.0363 18.7193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 130826JLM)	2,006.3 µg/mL	+/- +/- +/-	11.6648 21.9664 37.2586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Phenanthrene CAS # 85-01-8 Purity 99%	(Lot MKBJ4205V)	1,004.4 µg/mL	+/- +/- +/-	5.8394 10.9963 18.6516	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKBK5208V)	1,007.3 µg/mL	+/- +/- +/-	5.8565 11.0286 18.7064	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	n-Hexadecane (C16) CAS # 544-76-3 Purity 99%	(Lot SHBC3991V)	1,001.9 µg/mL	+/- +/- +/-	5.8248 10.9690 18.6051	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	Carbazole CAS # 86-74-8 Purity 98%	(Lot S42950-417)	1,001.8 µg/mL	+/- +/- +/-	5.8246 10.9685 18.6043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKBG1851V)	1,002.5 µg/mL	+/- +/- +/-	5.8286 10.9761 18.6172	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Fluoranthene CAS # 206-44-0 Purity 98%	(Lot 00828AJ)	1,009.4 µg/mL	+/- +/- +/-	5.8685 11.0511 18.7444	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Pyrene CAS # 129-00-0 Purity 98%	(Lot BCBJ0984V)	1,004.0 µg/mL	+/- +/- +/-	5.8371 10.9921 18.6443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot 03027HV)	1,005.4 µg/mL	+/- +/- +/-	5.8452 11.0073 18.6701	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Benz(a)anthracene CAS # 56-55-3 Purity 99%	(Lot ER031412-01)	1,006.4 µg/mL	+/- +/- +/-	5.8513 11.0188 18.6896	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Chrysene CAS # 218-01-9 Purity 99%	(Lot PR121912-01)	1,003.2 µg/mL	+/- +/- +/-	5.8327 10.9837 18.6302	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKBH9511V)	1,000.9 µg/mL	+/- +/- +/-	5.8190 10.9580 18.5866	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 1674300)	1,002.3 µg/mL	+/- +/- +/-	5.8272 10.9733 18.6126	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



**Column:**

30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi

**Temp. Program:**

35°C (hold 3 min.) to 330°C  
@ 3°C/min. (hold 3 min.)

**Inj. Temp:**

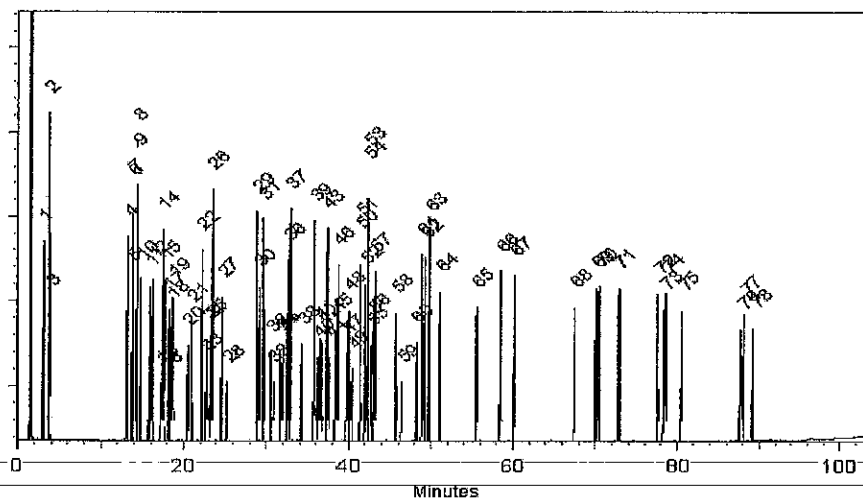
250°C

**Det. Temp:**

300°C

**Det. Type:**

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Rebecca Hawver*

Date Mixed: 26-Feb-2014

Balance: 1128360905

*Jodi E. Breon*

Jodi E. Breon - QA Analyst

Date Passed: 04-Mar-2014

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



**CERTIFIED REFERENCE MATERIAL**

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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# Certificate of Analysis



## FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567673.sec **Lot No.:** A0100416

**Description :** 8270 List 1 / Std #2 Amines  
8270 List 1 / Std #2 Amines 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 10 mL **Pkg Amt:** > 5 mL

**Expiration Date :** July 31, 2015 **Storage:** 10°C or colder

**Handling:** Contains carcinogen

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	epsilon-Caprolactam CAS # 105-60-2.SEC (Lot BLJTB) Purity 99%	2,003.0 µg/mL	+/- 11.7547 µg/mL Gravimetric +/- 21.9884 µg/mL Unstressed +/- 37.2316 µg/mL Stressed
2	Atrazine CAS # 1912-24-9.SEC (Lot 1132400) Purity 99%	2,004.0 µg/mL	+/- 11.7606 µg/mL Gravimetric +/- 21.9994 µg/mL Unstressed +/- 37.2502 µg/mL Stressed
3	Benzidine CAS # 92-87-5.SEC (Lot 1301900) Purity 99%	2,005.0 µg/mL	+/- 11.7665 µg/mL Gravimetric +/- 22.0103 µg/mL Unstressed +/- 37.2688 µg/mL Stressed
4	3,3'-Dichlorobenzidine CAS # 91-94-1.SEC (Lot 2010900) Purity 99%	2,001.0 µg/mL	+/- 11.7430 µg/mL Gravimetric +/- 21.9664 µg/mL Unstressed +/- 37.1944 µg/mL Stressed

**Solvent:** Methylene Chloride  
CAS # 75-09-2  
Purity 99%



**CERTIFIED REFERENCE MATERIAL**

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Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
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# Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567673 **Lot No.:** A0100824

**Description :** 8270 List 1 / Std #2 Amines

8270 List 1 / Std #2 Amines 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 10 mL **Pkg Amt:** > 5 mL

**Expiration Date :** July 31, 2015 **Storage:** 10°C or colder

**Handling:** Contains carcinogen

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	epsilon-Caprolactam	2,004.8 µg/mL	+/- 11.7653	µg/mL Gravimetric
	CAS # 105-60-2 (Lot 10000218)		+/- 22.0081	µg/mL Unstressed
	Purity 99%		+/- 37.2650	µg/mL Stressed
2	Atrazine	2,000.4 µg/mL	+/- 11.7393	µg/mL Gravimetric
	CAS # 1912-24-9 (Lot TZ8ED)		+/- 21.9596	µg/mL Unstressed
	Purity 98%		+/- 37.1828	µg/mL Stressed
3	Benzidine	2,010.4 µg/mL	+/- 11.7982	µg/mL Gravimetric
	CAS # 92-87-5 (Lot 140107JLM)		+/- 22.0696	µg/mL Unstressed
	Purity 99%		+/- 37.3691	µg/mL Stressed
4	3,3'-Dichlorobenzidine	2,000.0 µg/mL	+/- 11.7371	µg/mL Gravimetric
	CAS # 91-94-1 (Lot 140109JLM)		+/- 21.9554	µg/mL Unstressed
	Purity 99%		+/- 37.1758	µg/mL Stressed

**Solvent:** Methylene Chloride  
CAS # 75-09-2  
Purity 99%



CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 568725 Lot No.: A0101573

Description : 8270 List 1/ Std #7 Diphenylamine

8270 List 1/ Std #7 Diphenylamine 1,710 µg/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : February 28, 2017 Storage: 10°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Diphenylamine CAS # 122-39-4 Purity 99% (Lot 07525MF)	1,706.8 µg/mL	+/- 10.0165 µg/mL Gravimetric +/- 18.7368 µg/mL Unstressed +/- 31.7258 µg/mL Stressed

Solvent: Methylene Chloride  
CAS # 75-09-2  
Purity 99%

**Specific Reference Material Notes:**

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

**Tech Tips:**

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine. N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568725.sec **Lot No.:** A099909

**Description :** 8270 List 1/ Std #7 Diphenylamine

8270 List 1/ Std #7 Diphenylamine 1,710 µg/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** December 31, 2016 **Storage:** 10°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Diphenylamine CAS # 122-39-4.SEC (Lot 10164691) Purity 99%	1,696.0 µg/mL	+/- 9.9531 µg/mL Gravimetric +/- 18.6182 µg/mL Unstressed +/- 31.5251 µg/mL Stressed

**Solvent:** Methylene Chloride  
CAS # 75-09-2  
Purity 99%

**Specific Reference Material Notes:**

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.

**Tech Tips:**

N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.  
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.



**CERTIFIED REFERENCE MATERIAL**

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# Certificate of Analysis



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**Catalog No. :** 568724 **Lot No.:** A0103145

**Description :** 8270 List 1/ Std #8

8270 List 1/ Std #8 2,000 µg/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** May 31, 2015 **Storage:** 10°C or colder

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzaldehyde	2,000.0 µg/mL	+/-	11.7371	µg/mL	Gravimetric
	CAS # 100-52-7 (Lot SHBC6366V)		+/-	64.1312	µg/mL	Unstressed
	Purity 99%		+/-	74.5440	µg/mL	Stressed
2	Indene	2,012.0 µg/mL	+/-	11.8075	µg/mL	Gravimetric
	CAS # 95-13-6 (Lot MKBH4027V)		+/-	64.5160	µg/mL	Unstressed
	Purity 99%		+/-	74.9913	µg/mL	Stressed
3	Benzoic acid	2,003.0 µg/mL	+/-	11.7547	µg/mL	Gravimetric
	CAS # 65-85-0 (Lot MKBG9391V)		+/-	64.2274	µg/mL	Unstressed
	Purity 99%		+/-	74.6558	µg/mL	Stressed
<b>Solvent:</b>	Methylene Chloride					
	CAS # 75-09-2					
	Purity 99%					

SV 8270 List 1 Std 8. 56874. sec  
A0103007



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## Certificate of Analysis



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Catalog No. : 568724.sec Lot No.: A0103007  
Description : 8270 List 1/ Std #8  
8270 List 1/ Std #8 2,000 µg/ml, Methylene Chloride, 5 ml/ampul  
Container Size : 5 mL Pkg Amt: > 5 mL  
Expiration Date : April 30, 2015 Storage: 10°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Benzaldehyde CAS # 100-52-7.SEC (Lot E7DWH) Purity 99%	2,001.3 µg/mL	+/- 11.7449 µg/mL Gravimetric +/- 64.1739 µg/mL Unstressed +/- 74.5937 µg/mL Stressed
2	Indene CAS # 95-13-6.SEC (Lot IG5TI) Purity 99%	2,002.7 µg/mL	+/- 11.7528 µg/mL Gravimetric +/- 64.2167 µg/mL Unstressed +/- 74.6434 µg/mL Stressed
3	Benzoic acid CAS # 65-85-0.SEC (Lot QD3UO) Purity 97%	2,000.8 µg/mL	+/- 11.7417 µg/mL Gravimetric +/- 64.1564 µg/mL Unstressed +/- 74.5733 µg/mL Stressed

Solvent: Methylene Chloride  
CAS # 75-09-2  
Purity 99%



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708636  
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## Certificate of Analysis

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5 VLV SURR SPK

Catalog No.: 567685 Lot No.: A093638  
Description: 8270 Surrogate Standard  
8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul  
Container Size: 5 mL Pkg Amt: > 5 mL  
Expiration Date: February 2018 Storage: 10°C or colder  
Handling: Sonicate prior to use.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	2-Fluorophenol CAS # 367-12-4 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99%	5,000.0 µg/mL	+/- 29.0689 µg/mL Gravimetric +/- 132.9492 µg/mL Unstressed +/- 163.4029 µg/mL Stressed

Solvent: Methylene Chloride  
CAS # 75-09-2  
Purity 99%

#### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.



**Column:**

30m x .25mm x .25um  
Rtx-5 (cat.#110223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

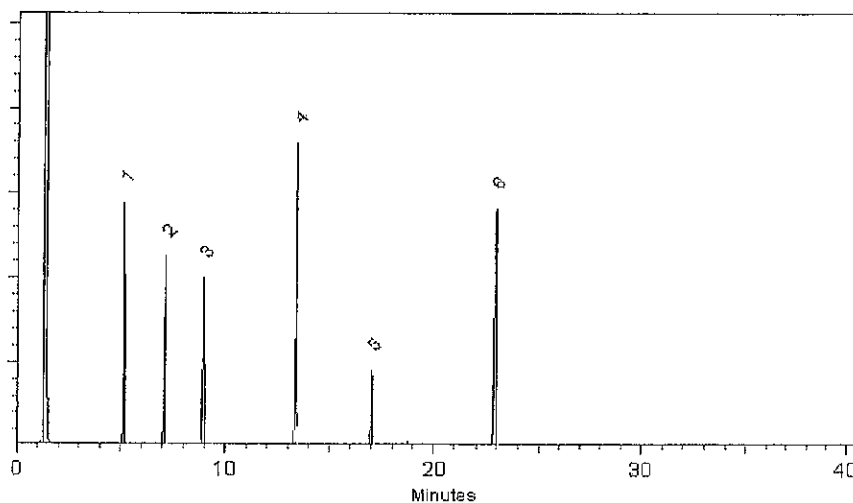
250°C

**Det. Temp:**

330°C

**Det. Type:**

FID



*Diane Shaffer*  
Diane Shaffer - QA Analyst

Date Passed: 22-Feb-2013

Balance: 1128342313

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



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**Catalog No. :** 567685 **Lot No.:** A093638

**Description :** 8270 Surrogate Standard  
8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** February 2018 **Storage:** 10°C or colder

**Handling:** Sonicate prior to use.

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	367-12-4			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
2	Phenol-d5		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	4165-62-2			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
3	Nitrobenzene-d5		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	4165-60-0			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
4	2-Fluorobiphenyl		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	321-60-8			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
5	2,4,6-Tribromophenol		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	118-79-6			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
6	p-Terphenyl-d14		5,000.0	µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS #	1718-51-0			+/-	132.9492	µg/mL	Unstressed
	Purity	99%			+/-	163.4029	µg/mL	Stressed
Solvent:	Methylene Chloride							
	CAS #	75-09-2						
	Purity	99%						

#### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

**Column:**  
30m x .25mm x .25um  
Rtx-5 (cat.#10223)

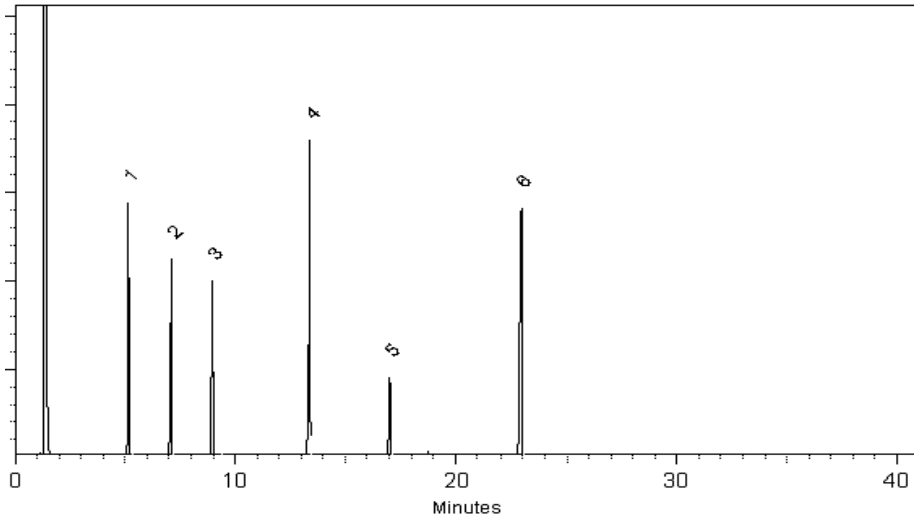
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



*Diane Shaffer*  
Diane Shaffer - QA Analyst

Date Passed: 22-Feb-2013      Balance: 1128342313

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



**CERTIFIED WEIGHT REPORT**

**Part Number:** 70451  
**Lot Number:** 060514  
**Description:** N-Nitrosopyrrolidine  
**Expiration Date:** 060517  
**Recommended Storage:** Freezer (0 °C)  
**Nominal Concentration (µg/mL):** 1000

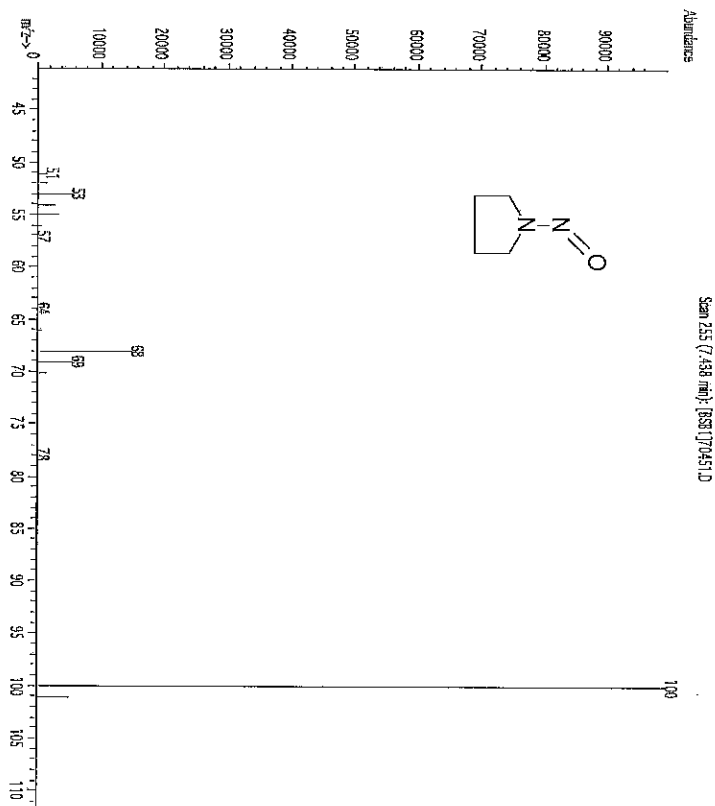
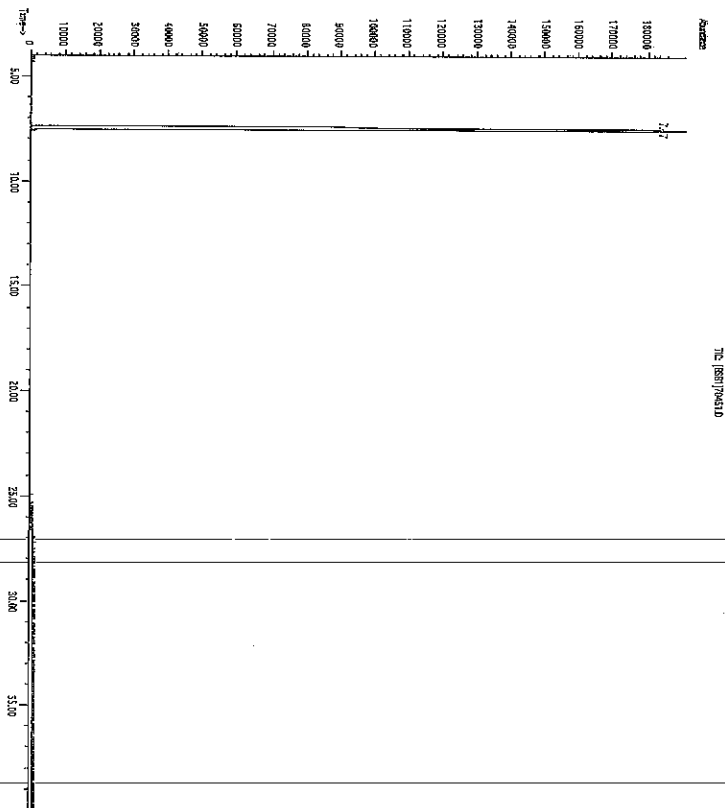
**Solvent(s):** Lot # 62418 Methylene chloride

**Weight(s) shown below were combined and diluted to:** 25.0  
**SE-05 Balance Uncertainty:** 0.001 Flask Uncertainty

Formulated By: <i>Paul Barron</i>	060514
Reviewed By: <i>Pedro L. Rentas</i>	DATE
	060514

Compound	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
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1. N-Nitrosopyrrolidine 451 04025BM 1000 99 0.2 0.02524 0.02530 1002.2 0.00565 00990-55-2 N/A or cal 900mg/kg  
**Method GC8MSD-3.M:** Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





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## Certificate of Analysis

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**Catalog No. :** 567645 **Lot No.:** A093341

**Description :** 8260 List 1 / Std #3 Gases  
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 2015 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,000.0 µg/mL	+/-	13.8716	µg/mL Gravimetric
	CAS # 75-71-8		+/-	25.2661	µg/mL Unstressed
	Purity 99%		+/-	28.2336	µg/mL Stressed
2	Chloromethane (methyl chloride)	1,999.8 µg/mL	+/-	13.9993	µg/mL Gravimetric
	CAS # 74-87-3		+/-	25.3348	µg/mL Unstressed
	Purity 99%		+/-	28.2945	µg/mL Stressed
3	Vinyl chloride	2,000.1 µg/mL	+/-	13.9625	µg/mL Gravimetric
	CAS # 75-01-4		+/-	25.3168	µg/mL Unstressed
	Purity 99%		+/-	28.2792	µg/mL Stressed
4	1,3-Butadiene	2,000.0 µg/mL	+/-	13.3773	µg/mL Gravimetric
	CAS # 106-99-0		+/-	24.9981	µg/mL Unstressed
	Purity 99%		+/-	27.9940	µg/mL Stressed
5	Bromomethane (methyl bromide)	2,000.1 µg/mL	+/-	14.2856	µg/mL Gravimetric
	CAS # 74-83-9		+/-	25.4963	µg/mL Unstressed
	Purity 99%		+/-	28.4399	µg/mL Stressed
6	Chloroethane (ethyl chloride)	2,000.0 µg/mL	+/-	13.2200	µg/mL Gravimetric
	CAS # 75-00-3		+/-	24.9143	µg/mL Unstressed
	Purity 99%		+/-	27.9191	µg/mL Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/-	13.5174	µg/mL Gravimetric
	CAS # 75-43-4		+/-	25.0735	µg/mL Unstressed
	Purity 99%		+/-	28.0614	µg/mL Stressed
8	Trichlorofluoromethane (CFC-11)	1,999.9 µg/mL	+/-	13.1170	µg/mL Gravimetric
	CAS # 75-69-4		+/-	24.8590	µg/mL Unstressed
	Purity 99%		+/-	27.8696	µg/mL Stressed
<b>Solvent:</b> P&T Methanol					
CAS # 67-56-1					
Purity 99%					



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**Catalog No. :** 567645 **Lot No.:** A093341

**Description :** 8260 List 1 / Std #3 Gases

8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 2015 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,000.0 µg/mL	+/-	13.8716	µg/mL	Gravimetric
	CAS # 75-71-8		+/-	25.2661	µg/mL	Unstressed
	Purity 99%		+/-	28.2336	µg/mL	Stressed
2	Chloromethane (methyl chloride)	1,999.8 µg/mL	+/-	13.9993	µg/mL	Gravimetric
	CAS # 74-87-3		+/-	25.3348	µg/mL	Unstressed
	Purity 99%		+/-	28.2945	µg/mL	Stressed
3	Vinyl chloride	2,000.1 µg/mL	+/-	13.9625	µg/mL	Gravimetric
	CAS # 75-01-4		+/-	25.3168	µg/mL	Unstressed
	Purity 99%		+/-	28.2792	µg/mL	Stressed
4	1,3-Butadiene	2,000.0 µg/mL	+/-	13.3773	µg/mL	Gravimetric
	CAS # 106-99-0		+/-	24.9981	µg/mL	Unstressed
	Purity 99%		+/-	27.9940	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,000.1 µg/mL	+/-	14.2856	µg/mL	Gravimetric
	CAS # 74-83-9		+/-	25.4963	µg/mL	Unstressed
	Purity 99%		+/-	28.4399	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,000.0 µg/mL	+/-	13.2200	µg/mL	Gravimetric
	CAS # 75-00-3		+/-	24.9143	µg/mL	Unstressed
	Purity 99%		+/-	27.9191	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/-	13.5174	µg/mL	Gravimetric
	CAS # 75-43-4		+/-	25.0735	µg/mL	Unstressed
	Purity 99%		+/-	28.0614	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	1,999.9 µg/mL	+/-	13.1170	µg/mL	Gravimetric
	CAS # 75-69-4		+/-	24.8590	µg/mL	Unstressed
	Purity 99%		+/-	27.8696	µg/mL	Stressed
<b>Solvent:</b> P&T Methanol						
CAS # 67-56-1						
Purity 99%						



CERTIFIED REFERENCE MATERIAL

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# Certificate of Analysis



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Catalog No.: 567645.sec Lot No.: A099261  
Description: 8260 List 1 / Std #3 Gases  
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul  
Container Size: 2 mL Pkg Amt: > 1 mL  
Expiration Date: November 30, 2015 Storage: 0°C or colder

## CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,002.2 µg/mL	+/-	16.7616	µg/mL Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/-	21.2987	µg/mL Unstressed
	Purity 99%		+/-	24.7536	µg/mL Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/-	15.8216	µg/mL Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	21.2729	µg/mL Unstressed
	Purity 99%		+/-	24.7262	µg/mL Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/-	14.6785	µg/mL Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	21.2759	µg/mL Unstressed
	Purity 99%		+/-	24.7329	µg/mL Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/-	16.7307	µg/mL Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/-	21.3051	µg/mL Unstressed
	Purity 99%		+/-	24.7611	µg/mL Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/-	16.2313	µg/mL Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	21.2671	µg/mL Unstressed
	Purity 99%		+/-	24.7183	µg/mL Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/-	14.6721	µg/mL Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/-	21.2666	µg/mL Unstressed
	Purity 99%		+/-	24.7221	µg/mL Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/-	15.1665	µg/mL Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	21.3071	µg/mL Unstressed
	Purity 99%		+/-	24.7678	µg/mL Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/-	16.2157	µg/mL Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/-	21.2894	µg/mL Unstressed
	Purity 99%		+/-	24.7442	µg/mL Stressed





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### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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Catalog No.: 567649 Lot No.: A093504  
Description: 8260 Internal Standard  
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul  
Container Size: 5 mL Pkg Amt: > 5 mL  
Expiration Date: February 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/- 110.6323	µg/mL	Unstressed
	Purity 99%		+/- 111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/- 1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/- 5.5316	µg/mL	Unstressed
	Purity 99%		+/- 5.5542	µg/mL	Stressed

Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis

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Catalog No.: 567649 Lot No.: A093504  
Description: 8260 Internal Standard  
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul  
Container Size: 5 mL Pkg Amt: > 5 mL  
Expiration Date: February 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol	5,000.0 µg/mL	+/-	29.0689	µg/mL Gravimetric
	CAS # 25725-11-5		+/-	110.6323	µg/mL Unstressed
	Purity 99%		+/-	111.0833	µg/mL Stressed
2	Fluorobenzene	250.0 µg/mL	+/-	1.4535	µg/mL Gravimetric
	CAS # 462-06-6		+/-	5.5316	µg/mL Unstressed
	Purity 99%		+/-	5.5542	µg/mL Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/-	29.0689	µg/mL Gravimetric
	CAS # 17647-74-4		+/-	110.6323	µg/mL Unstressed
	Purity 99%		+/-	111.0833	µg/mL Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/-	1.4535	µg/mL Gravimetric
	CAS # 3114-55-4		+/-	5.5316	µg/mL Unstressed
	Purity 99%		+/-	5.5542	µg/mL Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/-	1.4535	µg/mL Gravimetric
	CAS # 3855-82-1		+/-	5.5316	µg/mL Unstressed
	Purity 99%		+/-	5.5542	µg/mL Stressed

Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%



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**Catalog No. :** 567642 **Lot No.:** A093365

**Description :** 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 2016 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
<b>Solvent:</b> P&T Methanol/Water (90:10)						
CAS # 67-56-1/7732-18-5						
Purity 99%						



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Catalog No.: 567641 Lot No.: A093581

Description: 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size: 2 mL Pkg Amt: > 1 mL

Expiration Date: February 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 Purity 97%	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
			+/-	44.2519	µg/mL	Unstressed
			+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene CAS # 75-35-4 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 Purity 99%	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
			+/-	442.5291	µg/mL	Unstressed
			+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene) CAS # 107-05-1 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
7	Methyl acetate CAS # 79-20-9 Purity 99%	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
			+/-	221.2646	µg/mL	Unstressed
			+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide CAS # 75-15-0 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile CAS # 107-13-1 Purity 99%	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
				+/-	442.5291	µg/mL	Unstressed
				+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
17	chloroform CAS # 67-66-3 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
				+/-	1,106.3228	µg/mL	Unstressed
				+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
				+/-	88.5061	µg/mL	Unstressed
				+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
22	Cyclohexane CAS # 110-82-7 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride CAS # 56-23-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
26	Benzene CAS # 71-43-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane CAS # 108-87-2 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	40,000.0 µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	bromodichloromethane CAS # 75-27-4 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene CAS # 108-88-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate CAS # 97-63-2 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene CAS # 127-18-4 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	dibromochloromethane CAS # 124-48-1 Purity 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene CAS # 108-90-7 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3 Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene CAS # 106-42-3 Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

48	Ethylbenzene CAS # 100-41-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
49	Styrene CAS # 100-42-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
51	bromoform CAS # 75-25-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
56	Bromobenzene CAS # 108-86-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b> P&T Methanol CAS # 67-56-1 Purity 99%					

**Column:**  
60m x .25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

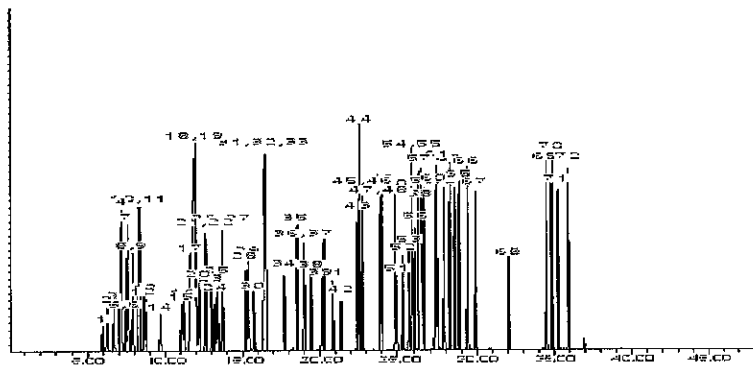
**Carrier Gas:**  
helium-constant pressure 30 psi

**Temp. Program:**  
40°C (hold 6 min.) to 240°C  
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: B251644995

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397





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## Certificate of Analysis

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Catalog No.: 567641 Lot No.: A093581

Description: 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size: 2 mL Pkg Amt: > 1 mL

Expiration Date: February 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 Purity 97%	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
			+/-	44.2519	µg/mL	Unstressed
			+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene CAS # 75-35-4 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 Purity 99%	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
			+/-	442.5291	µg/mL	Unstressed
			+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene) CAS # 107-05-1 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
7	Methyl acetate CAS # 79-20-9 Purity 99%	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
			+/-	221.2646	µg/mL	Unstressed
			+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide CAS # 75-15-0 Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile CAS # 107-13-1 Purity 99%	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
				+/-	442.5291	µg/mL	Unstressed
				+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
17	chloroform CAS # 67-66-3 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
				+/-	1,106.3228	µg/mL	Unstressed
				+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
				+/-	88.5061	µg/mL	Unstressed
				+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
22	Cyclohexane CAS # 110-82-7 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride CAS # 56-23-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
26	Benzene CAS # 71-43-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane CAS # 108-87-2 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	40,000.0 µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	bromodichloromethane CAS # 75-27-4 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene CAS # 108-88-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate CAS # 97-63-2 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene CAS # 127-18-4 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	dibromochloromethane CAS # 124-48-1 Purity 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene CAS # 108-90-7 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3 Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene CAS # 106-42-3 Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

48	Ethylbenzene CAS # 100-41-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
49	Styrene CAS # 100-42-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
51	bromoform CAS # 75-25-2 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
56	Bromobenzene CAS # 108-86-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b> P&T Methanol CAS # 67-56-1 Purity 99%					

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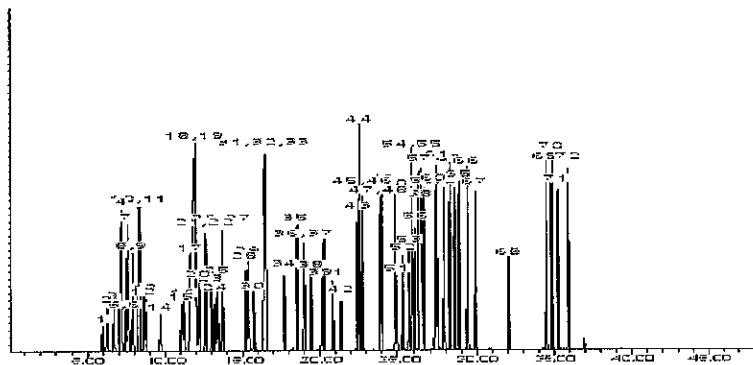
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**Temp. Program:**  
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@ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

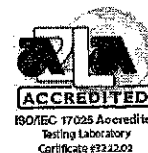
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Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com



## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567641.sec Lot No.: A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : February 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
3	1,1-Dichloroethene CAS # 75-35-4.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed
4	tert-Butanol (TBA) CAS # 75-65-0.SEC Purity 99%	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
			+/-	442.5291	µg/mL	Unstressed
			+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4.SEC Purity 97%	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
			+/-	44.2540	µg/mL	Unstressed
			+/-	44.4344	µg/mL	Stressed
6	Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
7	Methyl acetate CAS # 79-20-9.SEC Purity 99%	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
			+/-	221.2646	µg/mL	Unstressed
			+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide CAS # 75-15-0.SEC Purity 98%	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
			+/-	44.2527	µg/mL	Unstressed
			+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane) CAS # 75-09-2.SEC Purity 99%	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
			+/-	44.2531	µg/mL	Unstressed
			+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
				+/-	442.5291	µg/mL	Unstressed
				+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6) CAS # 110-54-3.SEC Purity 98%	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
				+/-	44.2549	µg/mL	Unstressed
				+/-	44.4353	µg/mL	Stressed
14	1,1-Dichloroethane CAS # 75-34-3.SEC Purity 97%	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
				+/-	44.2540	µg/mL	Unstressed
				+/-	44.4344	µg/mL	Stressed
15	2,2-Dichloropropane CAS # 594-20-7.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5.SEC Purity 97%	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
				+/-	44.2540	µg/mL	Unstressed
				+/-	44.4344	µg/mL	Stressed
17	Chloroform CAS # 67-66-3.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
				+/-	1,106.3228	µg/mL	Unstressed
				+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
				+/-	88.5061	µg/mL	Unstressed
				+/-	88.8670	µg/mL	Stressed
21	1,1,1-Trichloroethane CAS # 71-55-6.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
22	Cyclohexane CAS # 110-82-7.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
23	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 98%	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric
				+/-	44.4847	µg/mL	Unstressed
				+/-	44.6661	µg/mL	Stressed
24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 98%	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
				+/-	44.2549	µg/mL	Unstressed
				+/-	44.4353	µg/mL	Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
				+/-	44.2553	µg/mL	Unstressed
				+/-	44.4357	µg/mL	Stressed
26	Benzene CAS # 71-43-2.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 98%	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
				+/-	44.2549	µg/mL	Unstressed
				+/-	44.4353	µg/mL	Stressed

29	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	40,000.0 µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Bromodichloromethane CAS # 75-27-4.SEC Purity 97%	2,000.1 µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene CAS # 108-88-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	2,000.1 µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3.SEC Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene CAS # 106-42-3.SEC Purity 99%	1,000.0 µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



48	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
49	Styrene CAS # 100-42-5.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
51	Bromoform CAS # 75-25-2.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
				+/-	44.2527	µg/mL	Unstressed
				+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
				+/-	44.2540	µg/mL	Unstressed
				+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
				+/-	44.2545	µg/mL	Unstressed
				+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
				+/-	44.2531	µg/mL	Unstressed
				+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

**Column:**

60m x .25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

**Carrier Gas:**

helium-constant pressure 30 psi

**Temp. Program:**

40°C (hold 6 min.) to 240°C  
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**

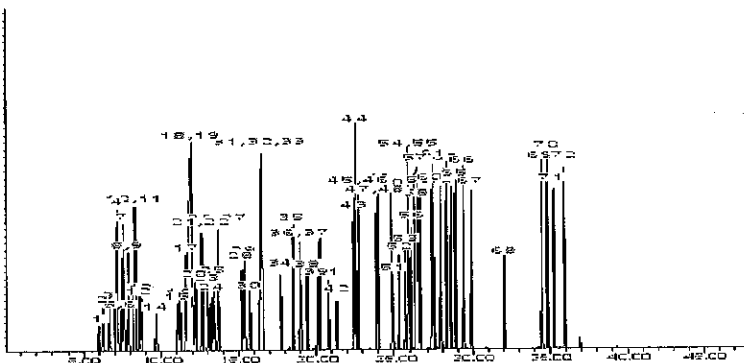
200°C

**Det. Temp:**

250°C

**Det. Type:**

MSD



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: 1127510105

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397



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## Certificate of Analysis

### FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567650 Lot No.: A093505  
Description : 8260 Surrogate Standard  
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul  
Container Size : 5 mL Pkg Amt: > 5 mL  
Expiration Date : February 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)				
1	Dibromofluoromethane	2,500.0    μg/mL	+/-	14.5352	μg/mL	Gravimetric	
	CAS #		1868-53-7	+/-	30.1344	μg/mL	Unstressed
	Purity		99%	+/-	34.0022	μg/mL	Stressed
2	1,2-Dichloroethane-d4	2,500.0    μg/mL	+/-	14.5352	μg/mL	Gravimetric	
	CAS #		17060-07-0	+/-	30.1344	μg/mL	Unstressed
	Purity		99%	+/-	34.0022	μg/mL	Stressed
3	Toluene-d8	2,500.0    μg/mL	+/-	14.5352	μg/mL	Gravimetric	
	CAS #		2037-26-5	+/-	30.1344	μg/mL	Unstressed
	Purity		99%	+/-	34.0022	μg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.0    μg/mL	+/-	14.5352	μg/mL	Gravimetric	
	CAS #		460-00-4	+/-	30.1344	μg/mL	Unstressed
	Purity		99%	+/-	34.0022	μg/mL	Stressed
Solvent:	P&T Methanol						
	CAS #	67-56-1					
	Purity	99%					



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Catalog No. : 567650 Lot No.: A093505  
Description : 8260 Surrogate Standard  
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul  
Container Size : 5 mL Pkg Amt: > 5 mL  
Expiration Date : February 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dibromofluoromethane	2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 1868-53-7		+/-	30.1344	µg/mL	Unstressed
	Purity 99%		+/-	34.0022	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 17060-07-0		+/-	30.1344	µg/mL	Unstressed
	Purity 99%		+/-	34.0022	µg/mL	Stressed
3	Toluene-d8	2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 2037-26-5		+/-	30.1344	µg/mL	Unstressed
	Purity 99%		+/-	34.0022	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 460-00-4		+/-	30.1344	µg/mL	Unstressed
	Purity 99%		+/-	34.0022	µg/mL	Stressed

Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%



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## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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Catalog No. : 567646 Lot No.: A0102473  
Description : 8260 List 1 / Std #6 Vinyl Acetate  
8260 List 1 / Std #6 Vinyl Acetate 4000 ug/ml, P&T Methanol, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : October 31, 2014 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Vinyl acetate	4,007.3 µg/mL	+/- 23.5173 µg/mL Gravimetric
	CAS # 108-05-4 (Lot 131011JLM)		+/- 213.2854 µg/mL Unstressed
	Purity 99%		+/- 213.5206 µg/mL Stressed

Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%

**Tech Tips:**

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.



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Catalog No. : 568720 Lot No.: A0104246  
Description : 8260 List 1/Std #5 Acrolein High  
8260 List 1/Std #5 Acrolein High 19,750 µg/ml, Water, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : October 31, 2014 Storage: 10°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein	19,750.0 µg/mL	+/- 115.6406 µg/mL Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 633.2471 µg/mL Unstressed
	Purity 99%		+/- 736.0805 µg/mL Stressed

Solvent: Water  
CAS # 7732-18-5  
Purity 99%



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Catalog No. : 568720 Lot No.: A0104886  
Description : 8260 List 1/Std #5 Acrolein High  
8260 List 1/Std #5 Acrolein High 19,750 µg/ml, Water, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : November 30, 2014 Storage: 10°C or colder  
Handling: This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
I	Acrolein	19,780.0 µg/mL	+/- 115.8162 µg/mL Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 634.2090 µg/mL Unstressed
	Purity 99%		+/- 737.1986 µg/mL Stressed

Solvent: Water  
CAS # 7732-18-5  
Purity 99%



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Catalog No. : 568720.sec Lot No.: A0104884  
Description : 8260 List 1/Std #5 Acrolein High  
8260 List 1/Std #5 Acrolein High 19,750 µg/ml, Water, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : November 30, 2014 Storage: 10°C or colder  
Handling: This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein	19,757.0 µg/mL	+/- 115.6816 µg/mL Gravimetric
	CAS # 107-02-8.SEC (Lot 2881600)		+/- 633.4715 µg/mL Unstressed
	Purity 99%		+/- 736.3413 µg/mL Stressed

Solvent: Water  
CAS # 7732-18-5  
Purity 99%





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## Certificate of Analysis

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567643 **Lot No.:** A093368

**Description :** 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 2016 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
<b>Solvent:</b> P&T Methanol						
CAS # 67-56-1						
Purity 99%						

#### Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.



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**Catalog No. :** 567643 **Lot No.:** A093368  
**Description :** 8260 List 1 / Std #4 2-Chloroethylvinyl Ether  
8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Chloroethyl vinyl ether	2,000.0    µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS #    110-75-8		+/-	44.2531	µg/mL	Unstressed
	Purity    99%		+/-	44.4335	µg/mL	Stressed
Solvent:	P&T Methanol					
	CAS #    67-56-1					
	Purity    99%					

#### Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.



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Catalog No. : 567648 Lot No.: A093361  
Description : 8260 List 2 / Std #3 Cyclohexanone  
8260 List 2 / Std #3 Cyclohexanone 20,000 ug/ml, Water, 1 ml/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : February 2016 Storage: 10°C or colder

### CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Cyclohexanone		20,000.0    µg/mL	+/-	116.2756    µg/mL	Gravimetric
	CAS #	108-94-1		+/-	1,597.3791    µg/mL	Unstressed
	Purity	99%		+/-	1,598.1615    µg/mL	Stressed
Solvent:	Water					
	CAS #	7732-18-5				
	Purity	99%				

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No.: 568722 Lot No.: A0100262

Description: 8260 List 2/ Std #1 Additions (2014)

8260 List 2/ Std #1 Additions (2014) 2,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size: 2 mL Pkg Amt: > 1 mL

Expiration Date: June 30, 2015 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Propanol (isopropanol) CAS # 67-63-0 (Lot SHBC5752V) Purity 99%	20,007.0 µg/mL	+/- 117.1454 µg/mL +/- 1,064.8186 µg/mL +/- 1,065.9927 µg/mL	Gravimetric Unstressed Stressed
2	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 (Lot 130611JLM) Purity 99%	2,000.0 µg/mL	+/- 32.2441 µg/mL +/- 110.6029 µg/mL +/- 110.7159 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl acetate CAS # 141-78-6 (Lot SHBD3394V) Purity 99%	4,002.0 µg/mL	+/- 23.4860 µg/mL +/- 213.0015 µg/mL +/- 213.2364 µg/mL	Gravimetric Unstressed Stressed
4	Methacrylonitrile CAS # 126-98-7 (Lot 2194000) Purity 99%	20,000.5 µg/mL	+/- 117.1073 µg/mL +/- 1,064.4727 µg/mL +/- 1,065.6464 µg/mL	Gravimetric Unstressed Stressed
5	2,2,4-Trimethylpentane (isooctane) CAS # 540-84-1 (Lot SHBB2470V) Purity 99%	2,004.5 µg/mL	+/- 11.7635 µg/mL +/- 106.6871 µg/mL +/- 106.8047 µg/mL	Gravimetric Unstressed Stressed
6	1-Butanol CAS # 71-36-3 (Lot SHBC1840V) Purity 99%	50,001.0 µg/mL	+/- 292.7518 µg/mL +/- 2,661.1667 µg/mL +/- 2,664.1010 µg/mL	Gravimetric Unstressed Stressed
7	1,4-Difluorobenzene CAS # 540-36-3 (Lot 13105AO) Purity 99%	2,006.5 µg/mL	+/- 11.7753 µg/mL +/- 106.7935 µg/mL +/- 106.9112 µg/mL	Gravimetric Unstressed Stressed
8	Ethyl acrylate CAS # 140-88-5 (Lot 10129902) Purity 99%	2,005.5 µg/mL	+/- 11.7694 µg/mL +/- 106.7403 µg/mL +/- 106.8580 µg/mL	Gravimetric Unstressed Stressed

9	Methyl methacrylate <b>CAS #</b> 80-62-6 <b>Purity</b> 99%	(Lot MKBK0839V)	4,003.0	µg/mL	+/- 23.4918 +/- 213.0548 +/- 213.2897	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Nitropropane <b>CAS #</b> 79-46-9 <b>Purity</b> 97%	(Lot BCBI4343V)	4,006.6	µg/mL	+/- 23.5129 +/- 213.2456 +/- 213.4807	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Butyl acetate <b>CAS #</b> 123-86-4 <b>Purity</b> 99%	(Lot SHBC9340V)	2,001.0	µg/mL	+/- 11.7430 +/- 106.5008 +/- 106.6182	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1-Chlorohexane <b>CAS #</b> 544-10-5 <b>Purity</b> 99%	(Lot 05107LK)	2,007.5	µg/mL	+/- 11.7811 +/- 106.8467 +/- 106.9645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	1,2,3-Trimethylbenzene <b>CAS #</b> 526-73-8 <b>Purity</b> 97%	(Lot 8776.05-10)	2,004.0	µg/mL	+/- 11.7607 +/- 106.6615 +/- 106.7791	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Benzyl chloride <b>CAS #</b> 100-44-7 <b>Purity</b> 99%	(Lot 20396EK)	2,009.0	µg/mL	+/- 11.7899 +/- 106.9266 +/- 107.0445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,3,5-Trichlorobenzene <b>CAS #</b> 108-70-3 <b>Purity</b> 99%	(Lot 11319AS)	2,000.0	µg/mL	+/- 11.7371 +/- 106.4475 +/- 106.5649	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b> P&T Methanol <b>CAS #</b> 67-56-1 <b>Purity</b> 99%							



**CERTIFIED REFERENCE MATERIAL**

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No.:** 568723 **Lot No.:** A099930

**Description:** 8260 List 3/ Std#1 Polar Additions  
8260 List 3/ Std#1 Polar Additions 2,000-100,000 µg/ml, 1 ml/ampul

**Container Size:** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date:** December 31, 2015 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Ethanol CAS # 64-17-5 Purity 99% (Lot SHBC8676V)	100,255.6 µg/mL	+/- 586.9883 µg/mL Gravimetric +/- 3,493.5733 µg/mL Unstressed +/- 3,613.2792 µg/mL Stressed
2	Acetonitrile CAS # 75-05-8 Purity 98% (Lot SHBB3177V)	20,015.9 µg/mL	+/- 117.1976 µg/mL Gravimetric +/- 697.4888 µg/mL Unstressed +/- 721.3879 µg/mL Stressed
3	Diisopropyl ether (DIPE) CAS # 108-20-3 Purity 99% (Lot SHBB6268V)	2,001.6 µg/mL	+/- 11.7465 µg/mL Gravimetric +/- 69.7537 µg/mL Unstressed +/- 72.1435 µg/mL Stressed
4	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 Purity 99% (Lot MKBP5984V)	2,008.4 µg/mL	+/- 11.7864 µg/mL Gravimetric +/- 69.9907 µg/mL Unstressed +/- 72.3885 µg/mL Stressed
5	Propionitrile CAS # 107-12-0 Purity 99% (Lot BCBK0700V)	20,039.6 µg/mL	+/- 117.3363 µg/mL Gravimetric +/- 698.3142 µg/mL Unstressed +/- 722.2416 µg/mL Stressed
6	tert-Amyl alcohol CAS # 75-85-4 Purity 99% (Lot STBB1898V)	20,035.2 µg/mL	+/- 117.3105 µg/mL Gravimetric +/- 698.1609 µg/mL Unstressed +/- 722.0831 µg/mL Stressed
7	tert-Amyl methyl ether (TAME) CAS # 994-05-8 Purity 99% (Lot OS1028/4V)	2,005.6 µg/mL	+/- 11.7700 µg/mL Gravimetric +/- 69.8931 µg/mL Unstressed +/- 72.2876 µg/mL Stressed



1320546

ID: WCN1000P\_00022

Exp: 01/24/15 Prod: PGJ Onn: 09/12/14

Cyanide 1000 ppm Primary



Jackson's Pointe Commerce Park - Building 1000  
1010 Jackson's Pointe Court, Zellenople, PA 16063  
Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com



1320547

ID: WAvCN1000P\_00015

Exp: 01/24/15 Prod: PGJ Onn: 09/12/14

Available Cyanide 1000 pp

## CERTIFICATE OF ANALYSIS

Description: CYANIDE STANDARD, 1000ppm (1ml = 1mg CN)

Catalog Number: LC13545

Mfg Date: 07/24/2014

Lot Number: D199-09

Expiration Date: 01/24/2015

## ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm CN	1000ppm +/- 10ppm	1001ppm
Concentration mg CN/mL	1.000mg/mL +/- 0.010 mg CN/mL	1.001 mg CN/mL
Traceable to NIST	Potassium Chloride	999b

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306-01

09/11/2014 8:37:55 AM

Form #17.12 06/19/2012

Page 1 of 1



# RICCA CHEMICAL COMPANY

1322242

ID: WCN1000S\_00016  
Exp: 12/31/14 Prpd: PGJ Opm: 09/15/14  
Cyanide 1000 ppm Secondary

1322243

ID: WAvCN1000S\_00016  
Exp: 12/31/14 Prpd: PGJ Opm: 09/15/14  
Available Cyanide 1000 Se

Arlington, TX 76012

Pocomoke City, MD 21851

Batesville, IN 47006

<http://www.riccachemical.com>

1-888-GO-RICCA

customerservice@riccachemical.com

## Certificate of Analysis

**Cyanide Standard, 1 mL = 1 mg CN, 1000 ppm CN**

Lot Number: 4406986

Product Number: 2543

Expiration Date: DEC 2014

Manufacture Date: 6/27/2014

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.

Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard.

Restandardize weekly if extreme accuracy is required.

### Contains:

Name	CAS#	Grade
Potassium Cyanide, KCN	151-50-8	ACS
Sodium Hydroxide, NaOH	1310-73-2	ACS
Water, Deionized, H <sub>2</sub> O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, cyanide odor	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm CN-	1000 ppm CN-

Specification	Reference	Method Number
Stock Standard Cyanide Solution	APHA	4500-CN- F
Stock Cyanide Solution	APHA	4500-CN- E
Stock Cyanide Solution	APHA	4500-CN- K
Stock Cyanide Solution	APHA	4500-CN- H
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846)	7.3.3.2
Cyanide Calibration Stock Solution (1,000 mg/L CN-)	EPA (SW-846)	9213
Stock Cyanide Solution	EPA	335.3
Stock Cyanide Solution	EPA	335.2
Cyanide Solution Stock	ASTM	D 4282
Simple Cyanide Solution, Stock (1.0 g/L CN)	ASTM	D 4374

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

### Shelf Life (unopened container):

Part Number	Shelf Life
2543-4	6 months
2543-32	6 months
2543-16	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

LaNelle Ohlhausen

Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Version: 2



To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

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A Waters Company



1327121

ID: WCNSoilLCS\_00014

Exp: 07/31/17 Prod: PGJ Cap: 09/19/14

Cyanide Solid LCS

Reference Material

■ Certificate of Analysis ■

Product: Cyanide in Soil  
Catalog Number: 541  
Lot No. D084-541  
Certificate Issue Date: March 18, 2014  
Expiration Date: July 31, 2017  
Revision Number: Original

CERTIFICATION

Parameter	Total Concentration	Certified Value <sup>1</sup>	Uncertainty <sup>2</sup>	QC Performance Acceptance Limits <sup>3</sup>	PT Performance Acceptance Limits <sup>4</sup>
	mg/Kg	mg/Kg	%	mg/Kg	mg/Kg
Cyanide, Total	103	64.5	11.4	3.57 - 125	25.4 - 113
Amenable Cyanide	< 25.0	< 25.0	11.4	-	0.00 - 25.0

PT DATA/TRACEABILITY

Parameter	Certified Value <sup>1</sup>	Proficiency Testing Study <sup>5</sup>			NIST Traceability	
	mg/Kg	Mean mg/Kg	Recovery %	n	SRM Number	Recovery %
Cyanide, Total	64.5	64.5	100	79	-	-
Amenable Cyanide	< 25.0	-	-	12	-	-





# Product Profile

## Speedisk® Oil & Grease Standards Kit

### Description and Use

The Speedisk® Oil & Grease Standards Kit consists of four vials sealed with Teflon® lined stoppers which are covered with crimped aluminum tear-offs to hold the stoppers firmly in place and prevent loss by evaporation. Each vial contains 51ml of a mixture consisting of 2mg/ml Stearic Acid and 2mg/ml n-Hexadecane in ULTRA RESI-ANALYZED® Acetone. This packaging format is particularly convenient when conducting EPA Method 1664, Rev. A, for oil and grease in which 10ml of standards mixture is added to one liter of water which has been adjusted to pH 2 or below. (Water must be at or below pH 2 to maintain Stearic Acid in the acid form.) Store and use standards at room temperature to keep components in solution. Since Acetone is volatile, open vials just before use to ensure correct concentration of standards. Do not save remainders for later use.

### Specifications

Stearic Acid Concentration 1.98-2.02 mg/ml Acetone

n-Hexadecane Concentration 1.98-2.02 mg/ml Acetone

### Package Contents

Four amber vials each containing 51ml of standard solution

### Safety Precautions

Observe appropriate safety precautions when using Speedisk® Oil & Grease Standards Kit and related chemicals and equipment. Use personal safety equipment for eye and skin protection. Use only approved glassware under vacuum. Observe fire safety regulations. Avoid breathing vapors. Operate with appropriate ventilation. Keep volatile chemicals in tightly sealed containers. For specific guidelines and additional health and safety information, consult the Material Safety Data Sheet (MSDS) for each chemical used.

### Storage Conditions

Store at room temperature away from light.

### Reorder Information

To order Speedisk® products, contact any authorized J.T.Baker distributor, or in North America, call 1-800-JTBAKER (1-800-582-2537).

Speedisk® Oil & Grease Standards Kit is part number 8030-00.

### Technical Support

For technical support or to discuss your application, please call J.T.Baker at 1-800-582-2537.

**Speedisk® Oil & Grease Standards Kit DANGER!**  
EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Aspiration hazard. SEE MATERIAL SAFETY DATA SHEET

**Speedisk® Oil & Grease Standards Kit DANGER!**  
LIQUIDE ET VAPEURS EXTRÊMEMENT INFLAMMABLES. LES VAPEURS PEUVENT PROVOQUER UN INCENDIE PAR INFLAMMATION SPONTANÉE, INGESTION OU INHALATION DANGÉREUSE. CAUSE L'IRRITATION DERMATIQUE, OCULAIRE ET DE LA VOIE RESPIRATOIRE. AFFECTE LE SYSTÈME NERVEUX CENTRAL. Tenir à l'écart de la chaleur, des étincelles et des flammes. Maintenir le contenant fermé. Utiliser avec une ventilation adéquate. Bien se laver après la manipulation. Éviter de respirer les vapeurs. VOIR FICHE SIGNALÉTIQUE

Avantor Performance Materials, Inc., USA  
Safety Data Sheet available at [www.avantormaterials.com](http://www.avantormaterials.com)

**AVANTOR**  
PERFORMANCE MATERIALS  
Avantor Performance Materials, Inc.  
3477 Corporate Parkway, Suite 200  
Center Valley, PA 16034  
610-575-2600  
[www.avantormaterials.com](http://www.avantormaterials.com)

PACKAGE INSERT



1EA

## Speedisk® Oil & Grease Standards Kit

Batch No: 0000058355

Manufactured Date: 2013/10/08 (yyyy/mm/dd)

Retest Date: 2020/10/06 (yyyy/mm/dd)

For Laboratory, Research, or Manufacturing Use

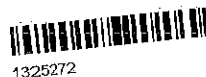
Stearic Acid (mg/ml) 1.98 - 2.02  
n-Hexadecane (mg/ml) 1.98 - 2.02  
Complete specifications at [avantormaterials.com](http://avantormaterials.com)

8030-00

FLASH POINT: 20°C  
(-4°F)(CLOSED CUP)  
DOT Name: ACETONE,  
SOLUTION  
UN1090

CAS NO:  
Acetone 67-64-1  
Stearic Acid 57-11-4  
Hexadecane 544-76-3

COUNTRY OF ORIGIN: USA



1325272  
ID: WHemPSP\_00169  
Exp: 10/06/20 Ppds JPM  
HEM Spike LCS 40/20 PPM





# Certificate of Analysis

800 Kaderly Drive  
Columbus, OH 43228  
614.824.3299

## SODIUM SULFIDE, NONAHYDRATE, REAGENT (ACS)

Item #: 1040

Lot #: C359966

Certificate of Analysis Print Date: Aug 08, 2013

Quality Assured to Retest Point: 12 months from shipment



934941

ID: WSulfide\_00001

Exp.08/28/15 Pripd:CMR Opn.08/29/13  
sodium sulfide, nonahydra

### Certified Values:

Specifications (Max Limits or as Specified)	Pass/Fail	Numerical Result
Assay 98.0% min	PASS	101.8%
Sulfite and Thiosulfate (as SO <sub>4</sub> ) 0.1%	PASS	<0.1%
Iron Pass test	PASS	pass test
Ammonium 0.005%	PASS	<0.005%
Appearance Colorless to slightly yellow crystals	PASS	conforms

Traceable to N.I.S.T. (Y/N)? Y

Comments:

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practice (cGMP) requirements, including without limitation those for finished drug products in 21 C.F.R Parts 210 and 211. Consult warranty limitations at [www.gfschemicals.com/statics/documents/aboutus/termsandconditions.html](http://www.gfschemicals.com/statics/documents/aboutus/termsandconditions.html)  
For resale by GFS authorized distributors only.



304285

ID: WSULFP\_00003

Rev. 10/20/14 Prod. Mkt. Open 01/11/12  
Sulfide primary standard**SIGMA-ALDRICH®**

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

## Certificate of Analysis

Product Name:

Sodium sulfide nonahydrate - ACS reagent, ≥98.0%

Product Number: 208043  
Lot Number: MKBJ3442V  
Brand: SIAL  
CAS Number: 1313-84-4  
MDL Number: MFCD00149184  
Formula: Na<sub>2</sub>S · 9H<sub>2</sub>O  
Formula Weight: 240.18 g/mol  
Storage Temperature: Store at 2 - 8 °C  
Quality Release Date: 26 OCT 2011



Test	Specification	Result
Appearance (Color) Colorless to White to Slight Yellow	Conforms to Requirements	White
Appearance (Form) Crystals or Chunks	Conforms to Requirements	Chunks
X-Ray Diffraction	Conforms to Structure	Conforms
ICP Major Analysis Confirms Sodium and Sulfur Components	Confirmed	Conforms
Titration by Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	≥ 98.0 %	100.1 %
Ammonia (NH <sub>4</sub> )	≤ 0.005 %	< 0.003 %
Assay (Sulfite and Thiosulfate)	≤ 0.1 %	< 0.1 %
Iron (Fe)	Pass	Pass
Meets ACS Requirements Tenth Edition	Current ACS Specification	Conforms

Jamie Gleason, Manager  
Quality Control  
Milwaukee, Wisconsin US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

# Certification Summary

Client: EA Engineering, Science, and Technology  
Project/Site: Sparrows Point Trust Offshore Investigat

TestAmerica Job ID: 180-37750-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	State Program	9	2891
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAP	4	E871008
TestAmerica Pittsburgh	Illinois	NELAP	5	002602
TestAmerica Pittsburgh	Kansas	NELAP	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAP	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAP	1	203011
TestAmerica Pittsburgh	New Jersey	NELAP	2	PA005
TestAmerica Pittsburgh	New York	NELAP	2	11182
TestAmerica Pittsburgh	North Carolina (WW/SW)	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAP	3	02-00416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014
TestAmerica Pittsburgh	Texas	NELAP	6	T104704528
TestAmerica Pittsburgh	US Fish & Wildlife	Federal		LE94312A-1
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAP	8	STLP
TestAmerica Pittsburgh	Virginia	NELAP	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA
TestAmerica Burlington	Florida	NELAP	4	E87467
TestAmerica Burlington	L-A-B	DoD ELAP		L2336
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAP	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAP	1	2006
TestAmerica Burlington	New Jersey	NELAP	2	VT972
TestAmerica Burlington	New York	NELAP	2	10391
TestAmerica Burlington	Pennsylvania	NELAP	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	US Fish & Wildlife	Federal		LE-058448-0
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAP	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Method 8260C

---

Volatile Organic Compounds (GC/MS)  
by Method 8260C

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low  
GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
SD-B01	180-37750-4	90	109	92	93
SD-B02	180-37750-5	90	103	109	88
SD-B02-FD	180-37750-6	93	108	112	88
SD-C01	180-37750-7	91	104	106	94
SD-C02	180-37750-8	90	108	108	93
SD-C03	180-37750-9	92	103	110	88
	MB 180-121882/1-A	89	112	93	92
	LCS 180-121882/2-A	93	116	94	100
SD-B01 MS	180-37750-4 MS	93	120	100	100
SD-B01 MSD	180-37750-4 MSD	91	115	96	97

	<u>QC LIMITS</u>
DBFM = Dibromofluoromethane (Surr)	68-121
DCA = 1,2-Dichloroethane-d4 (Surr)	52-124
TOL = Toluene-d8 (Surr)	72-127
BFB = 4-Bromofluorobenzene (Surr)	63-120

# Column to be used to flag recovery values



FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: 31017K05.D  
 Lab ID: LCS 180-121882/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	40.0	46.5	116	67-126	
1,1,2,2-Tetrachloroethane	40.0	46.9	117	60-139	
1,1,2-Trichloroethane	40.0	45.0	113	70-128	
1,1-Dichloroethane	40.0	44.2	111	66-124	
1,1-Dichloroethene	40.0	41.4	104	59-129	
1,2-Dichlorobenzene	40.0	41.6	104	71-124	
1,2-Dichloroethane	40.0	52.3	131	61-127	*
1,2-Dichloropropane	40.0	42.9	107	72-122	
1,3-Dichlorobenzene	40.0	40.5	101	75-118	
1,4-Dichlorobenzene	40.0	40.8	102	77-116	
Benzene	40.0	42.8	107	77-120	
Bromoform	40.0	45.0	113	53-140	
Bromomethane	40.0	58.3	146	25-150	
Carbon tetrachloride	40.0	49.5	124	69-122	*
Chlorobenzene	40.0	44.3	111	79-120	
Chloroform	40.0	45.7	114	72-120	
Chloromethane	40.0	34.5	86	44-131	
Chlorodibromomethane	40.0	47.8	119	70-132	
cis-1,3-Dichloropropene	40.0	47.3	118	73-120	
Dichlorobromomethane	40.0	47.5	119	70-125	
Ethylbenzene	40.0	43.7	109	78-125	
Methylene Chloride	40.0	43.0	108	58-127	
Tetrachloroethene	40.0	42.6	106	78-129	
Toluene	40.0	45.9	115	78-124	
trans-1,2-Dichloroethene	40.0	40.0	100	77-121	
trans-1,3-Dichloropropene	40.0	50.7	127	74-129	
Trichloroethene	40.0	40.1	100	76-119	
Vinyl chloride	40.0	35.0	88	63-124	
Chloroethane	40.0	45.4	113	22-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: 31017K06.D  
 Lab ID: 180-37750-4 MS Client ID: SD-B01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	56.6	ND	69.5	123	67-126	
1,1,2,2-Tetrachloroethane	56.6	ND	66.3	117	60-139	
1,1,2-Trichloroethane	56.6	ND	62.9	111	70-128	
1,1-Dichloroethane	56.6	ND	67.8	120	66-124	
1,1-Dichloroethene	56.6	ND	60.5	107	59-129	
1,2-Dichlorobenzene	56.6	ND	61.6	109	71-124	
1,2-Dichloroethane	56.6	ND	77.8	137	61-127	F1
1,2-Dichloropropane	56.6	ND	64.6	114	72-122	
1,3-Dichlorobenzene	56.6	ND	60.6	107	75-118	
1,4-Dichlorobenzene	56.6	ND	60.5	107	77-116	
Benzene	56.6	ND	62.2	110	77-120	
Bromoform	56.6	ND	62.4	110	53-140	
Bromomethane	56.6	ND	82.5	146	25-150	
Carbon tetrachloride	56.6	ND	71.6	127	69-122	F1
Chlorobenzene	56.6	ND	64.6	114	79-120	
Chloroform	56.6	ND	67.6	119	72-120	
Chloromethane	56.6	ND	54.6	96	44-131	
Chlorodibromomethane	56.6	ND	67.7	120	70-132	
cis-1,3-Dichloropropene	56.6	ND	67.4	119	73-120	
Dichlorobromomethane	56.6	ND	70.9	125	70-125	
Ethylbenzene	56.6	ND	64.7	114	78-125	
Methylene Chloride	56.6	ND	31.3	55	58-127	F1
Tetrachloroethene	56.6	ND	60.0	106	78-129	
Toluene	56.6	1.7 J	66.6	115	78-124	
trans-1,2-Dichloroethene	56.6	ND	60.4	107	77-121	
trans-1,3-Dichloropropene	56.6	ND	74.0	131	74-129	F1
Trichloroethene	56.6	ND	55.0	97	76-119	
Vinyl chloride	56.6	ND	54.6	97	63-124	
Chloroethane	56.6	ND	62.9	111	22-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: 31017K07.D  
 Lab ID: 180-37750-4 MSD Client ID: SD-B01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	56.6	56.6	100	20	31	67-126	
1,1,2,2-Tetrachloroethane	56.6	50.3	89	27	24	60-139	F2
1,1,2-Trichloroethane	56.6	51.8	92	19	22	70-128	
1,1-Dichloroethane	56.6	56.1	99	19	23	66-124	
1,1-Dichloroethene	56.6	48.4	86	22	25	59-129	
1,2-Dichlorobenzene	56.6	49.8	88	21	22	71-124	
1,2-Dichloroethane	56.6	64.1	113	19	23	61-127	
1,2-Dichloropropane	56.6	53.3	94	19	20	72-122	
1,3-Dichlorobenzene	56.6	48.6	86	22	20	75-118	F2
1,4-Dichlorobenzene	56.6	49.4	87	20	20	77-116	
Benzene	56.6	52.7	93	17	20	77-120	
Bromoform	56.6	52.8	93	17	23	53-140	
Bromomethane	56.6	68.9	122	18	40	25-150	
Carbon tetrachloride	56.6	61.3	108	16	22	69-122	
Chlorobenzene	56.6	50.6	89	24	20	79-120	F2
Chloroform	56.6	59.3	105	13	25	72-120	
Chloromethane	56.6	44.3	78	21	27	44-131	
Chlorodibromomethane	56.6	53.9	95	23	20	70-132	F2
cis-1,3-Dichloropropene	56.6	56.6	100	17	20	73-120	
Dichlorobromomethane	56.6	58.1	103	20	21	70-125	
Ethylbenzene	56.6	49.9	88	26	21	78-125	F2
Methylene Chloride	56.6	52.6	93	51	28	58-127	F2
Tetrachloroethene	56.6	48.8	86	21	20	78-129	F2
Toluene	56.6	56.6	97	16	21	78-124	
trans-1,2-Dichloroethene	56.6	47.4	84	24	20	77-121	F2
trans-1,3-Dichloropropene	56.6	59.3	105	22	20	74-129	F2
Trichloroethene	56.6	47.0	83	16	21	76-119	
Vinyl chloride	56.6	45.0	80	19	27	63-124	
Chloroethane	56.6	51.0	90	21	40	22-150	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: 31017K03.D Lab Sample ID: MB 180-121882/1-A  
Matrix: Sediment Heated Purge: (Y/N) Y  
Instrument ID: CHHP3 Date Analyzed: 10/17/2014 21:25  
GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SD-B01	180-37750-4	31017K04.D	10/17/2014 21:48
	LCS 180-121882/2-A	31017K05.D	10/17/2014 22:10
SD-B01 MS	180-37750-4 MS	31017K06.D	10/17/2014 22:33
SD-B01 MSD	180-37750-4 MSD	31017K07.D	10/17/2014 22:56
SD-B02	180-37750-5	31017K14.D	10/18/2014 01:34
SD-B02-FD	180-37750-6	31017K15.D	10/18/2014 01:56
SD-C01	180-37750-7	31017K16.D	10/18/2014 02:19
SD-C02	180-37750-8	31017K17.D	10/18/2014 02:42
SD-C03	180-37750-9	31017K18.D	10/18/2014 03:04

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 303070A1.D BFB Injection Date: 03/07/2014  
 Instrument ID: CHHP3 BFB Injection Time: 05:23  
 Analysis Batch No.: 98978

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.6
75	30.0 - 60.0 % of mass 95	39.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.4 (0.4) 1
174	50.0 - 120.00 % of mass 95	80.2
175	5.0 - 9.0 % of mass 174	6.2 (7.8) 1
176	95.0 - 101.0 % of mass 174	77.5 (96.6) 1
177	5.0 - 9.0 % of mass 176	5.0 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-98978/2	3030702.D	03/07/2014	05:54
	IC 180-98978/3	3030703.D	03/07/2014	06:20
	IC 180-98978/4	3030704.D	03/07/2014	06:45
	IC 180-98978/5	3030705.D	03/07/2014	07:09
	IC 180-98978/6	3030706.D	03/07/2014	07:32
	IC 180-98978/7	3030707.D	03/07/2014	07:57
	IC 180-98978/8	3030708.D	03/07/2014	08:21

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 30922K01.D BFB Injection Date: 09/22/2014  
 Instrument ID: CHHP3 BFB Injection Time: 10:09  
 Analysis Batch No.: 118826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.2
75	30.0 - 60.0 % of mass 95	44.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.4
173	Less than 2.0 % of mass 174	0.4 (0.5) 1
174	50.0 - 120.00 % of mass 95	81.3
175	5.0 - 9.0 % of mass 174	6.1 (7.6) 1
176	95.0 - 101.0 % of mass 174	79.4 (97.7) 1
177	5.0 - 9.0 % of mass 176	5.3 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-118826/3	30922K03.D	09/22/2014	11:07
	IC 180-118826/4	30922K04.D	09/22/2014	11:29
	IC 180-118826/5	30922K05.D	09/22/2014	11:52
	ICIS 180-118826/6	30922K06.D	09/22/2014	12:15
	IC 180-118826/7	30922K07.D	09/22/2014	12:38
	IC 180-118826/8	30922K08.D	09/22/2014	13:04
	IC 180-118826/9	30922K09.D	09/22/2014	13:30

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 31017K01.D BFB Injection Date: 10/17/2014  
 Instrument ID: CHHP3 BFB Injection Time: 20:12  
 Analysis Batch No.: 121881

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	24.2
75	30.0 - 60.0 % of mass 95	48.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.3 (0.5) 1
174	50.0 - 120.00 % of mass 95	72.7
175	5.0 - 9.0 % of mass 174	5.1 (7.0) 1
176	95.0 - 101.0 % of mass 174	71.6 (98.4) 1
177	5.0 - 9.0 % of mass 176	5.3 (7.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-121881/2	31017K02.D	10/17/2014	20:43
	MB 180-121882/1-A	31017K03.D	10/17/2014	21:25
SD-B01	180-37750-4	31017K04.D	10/17/2014	21:48
	LCS 180-121882/2-A	31017K05.D	10/17/2014	22:10
SD-B01 MS	180-37750-4 MS	31017K06.D	10/17/2014	22:33
SD-B01 MSD	180-37750-4 MSD	31017K07.D	10/17/2014	22:56
SD-B02	180-37750-5	31017K14.D	10/18/2014	01:34
SD-B02-FD	180-37750-6	31017K15.D	10/18/2014	01:56
SD-C01	180-37750-7	31017K16.D	10/18/2014	02:19
SD-C02	180-37750-8	31017K17.D	10/18/2014	02:42
SD-C03	180-37750-9	31017K18.D	10/18/2014	03:04

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-121881/2 Date Analyzed: 10/17/2014 20:43  
 Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 31017K02.D Heated Purge: (Y/N) Y  
 Calibration ID: 17914

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	155243	4.76	482998	7.62	110502	10.69	
UPPER LIMIT	310486	5.26	965996	8.12	221004	11.19	
LOWER LIMIT	77622	4.26	241499	7.12	55251	10.19	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-121882/1-A		307321	4.70	561350	7.63	125792	10.69
180-37750-4	SD-B01	331545*	4.70	540133	7.62	118813	10.69
LCS 180-121882/2-A		212177	4.76	478646	7.62	106452	10.69
180-37750-4 MS	SD-B01 MS	192568	4.74	479617	7.62	106359	10.69
180-37750-4 MSD	SD-B01 MSD	190716	4.75	498633	7.62	110830	10.69
180-37750-5	SD-B02	183338	4.68	630526	7.61	112655	10.68
180-37750-6	SD-B02-FD	179080	4.68	589249	7.61	107113	10.68
180-37750-7	SD-C01	176502	4.67	668810	7.61	137398	10.68
180-37750-8	SD-C02	176687	4.68	634441	7.61	124039	10.69
180-37750-9	SD-C03	174215	4.68	598957	7.61	107556	10.69

TBA = TBA-d9 (IS)  
 FB = Fluorobenzene (IS)  
 CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area  
 RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits



FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-121881/2 Date Analyzed: 10/17/2014 20:43  
 Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 31017K02.D Heated Purge: (Y/N) Y  
 Calibration ID: 17914

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		161668	13.02				
UPPER LIMIT		323336	13.52				
LOWER LIMIT		80834	12.52				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-121882/1-A		172307	13.02				
180-37750-4	SD-B01	162314	13.02				
LCS 180-121882/2-A		154824	13.02				
180-37750-4 MS	SD-B01 MS	150608	13.02				
180-37750-4 MSD	SD-B01 MSD	155489	13.02				
180-37750-5	SD-B02	107967	13.01				
180-37750-6	SD-B02-FD	102756	13.01				
180-37750-7	SD-C01	156812	13.01				
180-37750-8	SD-C02	128461	13.01				
180-37750-9	SD-C03	103223	13.01				

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 Lab Sample ID: 180-37750-4

Matrix: Sediment Lab File ID: 31017K04.D

Analysis Method: 8260C Date Collected: 10/13/2014 12:50

Sample wt/vol: 5.0007(g) Date Analyzed: 10/17/2014 21:48

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 29.3 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		7.1	0.69
79-34-5	1,1,2,2-Tetrachloroethane	ND		7.1	1.0
79-00-5	1,1,2-Trichloroethane	ND		7.1	1.2
75-34-3	1,1-Dichloroethane	ND		7.1	0.81
75-35-4	1,1-Dichloroethene	ND		7.1	1.2
95-50-1	1,2-Dichlorobenzene	ND		7.1	1.1
107-06-2	1,2-Dichloroethane	ND	*	7.1	0.87
78-87-5	1,2-Dichloropropane	ND		7.1	0.77
541-73-1	1,3-Dichlorobenzene	ND		7.1	0.93
106-46-7	1,4-Dichlorobenzene	ND		7.1	0.90
110-75-8	2-Chloroethyl vinyl ether	ND		14	1.1
107-02-8	Acrolein	ND		140	10
107-13-1	Acrylonitrile	ND		140	15
71-43-2	Benzene	ND		7.1	0.96
75-25-2	Bromoform	ND		7.1	0.63
74-83-9	Bromomethane	ND		7.1	1.0
56-23-5	Carbon tetrachloride	ND	*	7.1	0.63
108-90-7	Chlorobenzene	ND		7.1	1.1
67-66-3	Chloroform	ND		7.1	0.83
74-87-3	Chloromethane	ND		7.1	1.2
124-48-1	Chlorodibromomethane	ND		7.1	1.0
10061-01-5	cis-1,3-Dichloropropene	ND		7.1	0.96
75-27-4	Dichlorobromomethane	ND		7.1	0.79
100-41-4	Ethylbenzene	ND		7.1	0.91
75-09-2	Methylene Chloride	ND		7.1	0.95
127-18-4	Tetrachloroethene	ND		7.1	0.96
108-88-3	Toluene	1.7	J B	7.1	1.0
156-60-5	trans-1,2-Dichloroethene	ND		7.1	0.84
10061-02-6	trans-1,3-Dichloropropene	ND		7.1	0.85
79-01-6	Trichloroethene	ND		7.1	0.93
75-01-4	Vinyl chloride	ND		7.1	0.66
75-00-3	Chloroethane	ND		7.1	2.2

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B01 Lab Sample ID: 180-37750-4  
Matrix: Sediment Lab File ID: 31017K04.D  
Analysis Method: 8260C Date Collected: 10/13/2014 12:50  
Sample wt/vol: 5.0007(g) Date Analyzed: 10/17/2014 21:48  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 29.3 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		52-124
460-00-4	4-Bromofluorobenzene (Surr)	93		63-120
1868-53-7	Dibromofluoromethane (Surr)	90		68-121
2037-26-5	Toluene-d8 (Surr)	92		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K04.D  
 Lims ID: 180-37750-C-4-A Lab Sample ID: 180-37750-4  
 Client ID: SD-B01  
 Sample Type: Client  
 Inject. Date: 17-Oct-2014 21:48:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-4-A  
 Misc. Info.: 180-0003876-004180-0003876-004  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 21:46:43 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 21:51:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.698	4.761	-0.063	97	331545	5000.0	s
* 2 Fluorobenzene (IS)	96	7.624	7.620	0.004	98	540133	250.0	
* 3 Chlorobenzene-d5	119	10.690	10.693	-0.003	90	118813	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.020	13.023	-0.002	97	162314	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.876	6.866	0.010	93	102298	225.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.247	7.243	0.004	95	145182	273.4	
\$ 7 Toluene-d8 (Surr)	98	9.261	9.257	0.004	94	454405	229.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.865	11.861	0.004	84	161409	232.5	
10 Dichlorodifluoromethane	85		1.780				ND	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
13 Butadiene	39		2.151				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
16 Dichlorofluoromethane	67		2.930				ND	
17 Trichlorofluoromethane	101		3.009				ND	
18 Ethanol	45		3.423				ND	
19 Ethyl ether	59		3.429				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.812				ND	
23 Acetone	43		3.891				ND	
24 Iodomethane	142		3.995				ND	
25 Carbon disulfide	76		4.092				ND	
26 Isopropyl alcohol	45		4.177				ND	
28 3-Chloro-1-propene	76		4.335				ND	
27 Acetonitrile	40		4.372				ND	
29 Methyl acetate	43		4.439				ND	
30 Methylene Chloride	84		4.530				ND	
31 2-Methyl-2-propanol	59		4.877				ND	
32 Acrylonitrile	53		4.931				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96		4.962				ND	
34 Methyl tert-butyl ether	73		5.017				ND	
35 Hexane	57		5.382				ND	
36 1,1-Dichloroethane	63		5.546				ND	
37 Vinyl acetate	43		5.669				ND	
38 2-Chloro-1,3-butadiene	53		5.687				ND	
39 Isopropyl ether	45		5.711				ND	
40 Tert-butyl ethyl ether	59		6.173				ND	
41 2,2-Dichloropropane	77		6.294				ND	
42 cis-1,2-Dichloroethene	96		6.300				ND	
43 2-Butanone (MEK)	43		6.343				ND	
45 Ethyl acetate	43		6.346				ND	
44 Propionitrile	54		6.392				ND	
46 Methacrylonitrile	41		6.575				ND	
47 Chlorobromomethane	128		6.580				ND	
48 Tetrahydrofuran	42		6.653				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
51 Cyclohexane	56		6.963				ND	
52 1,1-Dichloropropene	75		7.079				ND	
53 Carbon tetrachloride	117		7.091				ND	
57 Tert-amyl methyl ether	73		7.262				ND	
54 Isobutyl alcohol	41		7.268				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
59 n-Heptane	43		7.633				ND	
58 Isooctane	57		7.633				ND	
60 Trichloroethene	130		8.010				ND	
63 Methylcyclohexane	83		8.223				ND	
61 n-Butanol	56		8.223				ND	
62 Ethyl acrylate	55		8.229				ND	
66 Methyl methacrylate	69		8.229				ND	
64 1,2-Dichloropropane	63		8.241				ND	
65 Dibromomethane	93		8.350				ND	
67 1,4-Dioxane	88		8.381				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
69 2-Nitropropane	41		9.129				ND	
72 4-Methyl-2-pentanone (MIBK)	43		9.135				ND	
73 Toluene	91	9.322	9.324	-0.002	97	13290	5.85	
74 trans-1,3-Dichloropropene	75		9.531				ND	
75 Ethyl methacrylate	69		9.628				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	
77 Tetrachloroethene	164		9.877				ND	
78 1,3-Dichloropropane	76		9.883				ND	
79 2-Hexanone	43		9.963				ND	
80 n-Butyl acetate	43		10.091				ND	
81 Chlorodibromomethane	129		10.115				ND	
82 Ethylene Dibromide	107		10.224				ND	
83 Chlorobenzene	112		10.723				ND	
84 4-Chlorobenzotrifluoride	180		10.745				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131		10.802				ND	
86 Ethylbenzene	106		10.832				ND	
87 m-Xylene & p-Xylene	106		10.948				ND	
88 o-Xylene	106		11.343				ND	
89 Styrene	104		11.356				ND	
90 Bromoform	173		11.532				ND	
91 Isopropylbenzene	105		11.708				ND	
92 Cyclohexanone	55		11.786				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
94 Bromobenzene	156		12.013				ND	
96 trans-1,4-Dichloro-2-buten	53		12.043				ND	
95 1,2,3-Trichloropropane	110		12.043				ND	
97 N-Propylbenzene	120		12.122				ND	
98 2-Chlorotoluene	126		12.213				ND	
99 1,3,5-Trimethylbenzene	105		12.292				ND	
100 4-Chlorotoluene	126		12.317				ND	
101 tert-Butylbenzene	119		12.627				ND	
102 Pentachloroethane	167		12.644				ND	
103 1,2,4-Trimethylbenzene	105		12.670				ND	
104 sec-Butylbenzene	105		12.846				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
106 4-Isopropyltoluene	119		12.992				ND	
108 1,2,3-Trimethylbenzene	105		12.992				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
109 Benzyl chloride	91		13.173				ND	
110 n-Butylbenzene	91		13.400				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	
112 1,2-Dibromo-3-Chloropropan	157		14.203				ND	
113 1,3,5-Trichlorobenzene	180		14.420				ND	
114 1,2,4-Trichlorobenzene	180		15.048				ND	
115 Hexachlorobutadiene	225		15.231				ND	
116 Naphthalene	128		15.310				ND	
117 1,2,3-Trichlorobenzene	180		15.571				ND	
118 2-Methylnaphthalene	142		16.697				ND	
119 2,5-Dichlorobenzotrifluori	214		0.000				ND	
124 2,4,5-Trichlorotoluene	159		0.000				ND	
126 2,4-Dichloro-1-(triflourom	214		0.000				ND	
125 2,3- & 3,4- Dichlorotoluen	125		0.000				ND	
123 3-Chlorobenzotrifluoride	180		0.000				ND	
121 1,2-dichloro-4-(trifluorom	214		0.000				ND	
128 2,3,6-Trichlorotoluene	159		0.000				ND	
122 3-Chlorotoluene	126		0.000				ND	
127 2-Chlorobenzotrifluoride	180		0.000				ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000				ND	
S 129 Xylenes, Total	106		1.000				0	
S 130 1,2-Dichloroethene, Total	96		1.000				0	
S 131 1,3-Dichloropropene, Total	1		0.000				0	
T 132 Mesityl oxide TIC	83		0.000				0	
T 133 Methyl n-amyl ketone TIC	43		0.000				0	
T 134 Tetrahydrofuran TIC	42		0.000				0	

[QC Flag Legend](#)

## Processing Flags

ND - Not Detected or Marked ND

s - Failed ISTD Recovery Test

[Reagents:](#)

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K04.D

Injection Date: 17-Oct-2014 21:48:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-4-A

Lab Sample ID: 180-37750-4

Worklist Smp#: 4

Client ID: SD-B01

Purge Vol: 5.000 mL

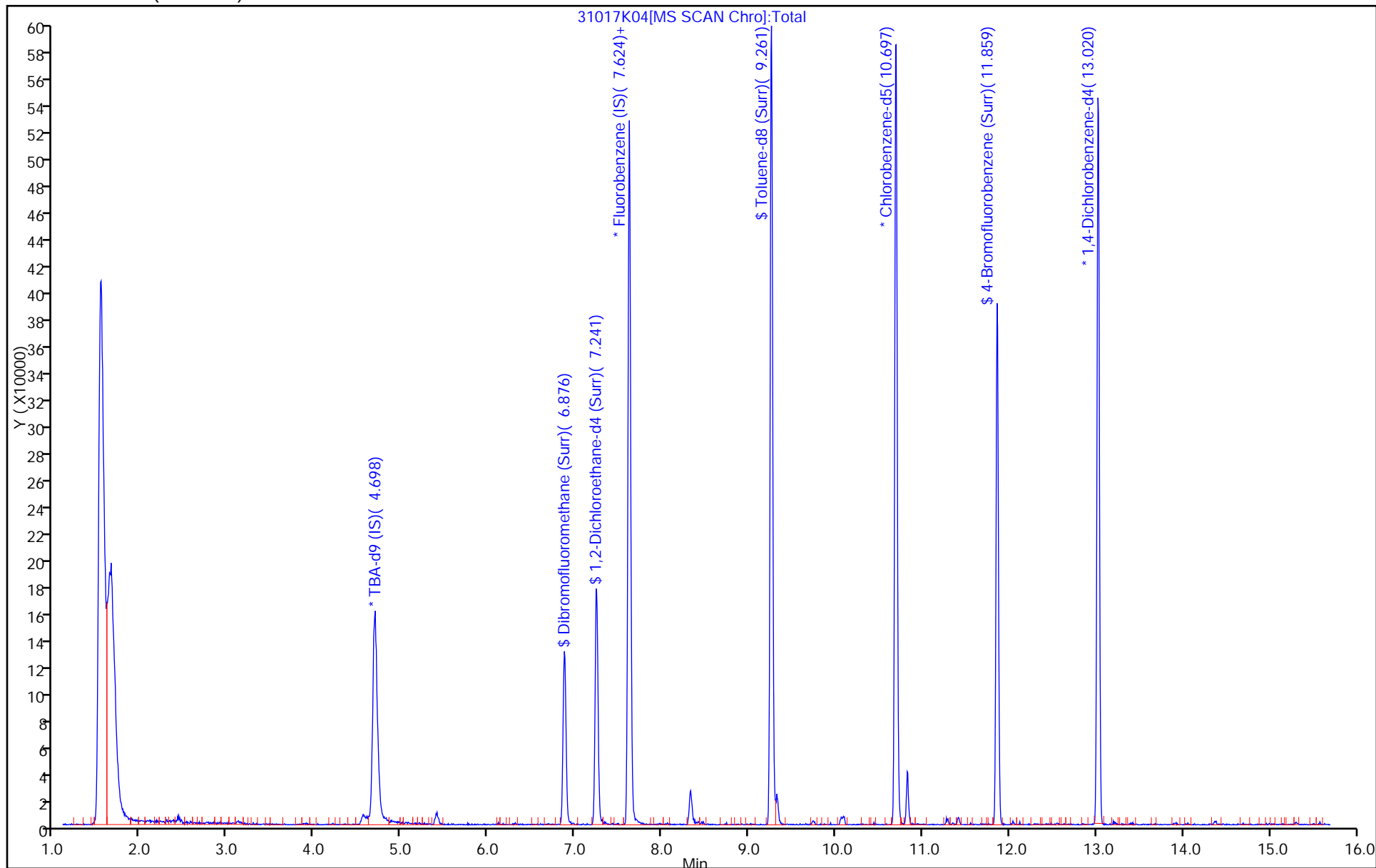
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K04.D

Injection Date: 17-Oct-2014 21:48:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-4-A

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 10099

ALS Bottle#: 4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

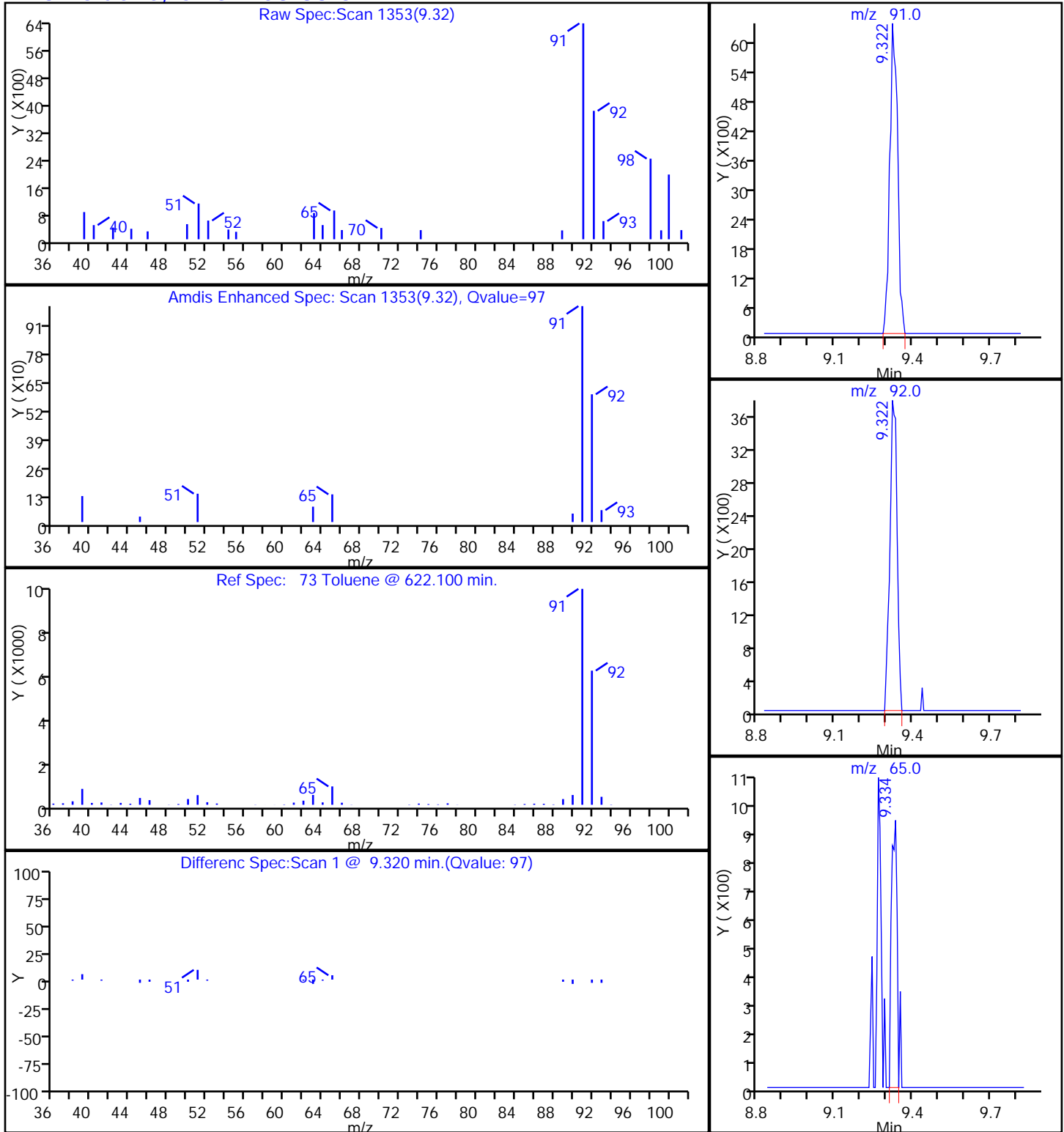
Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 73 Toluene, CAS: 108-88-3



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B02 Lab Sample ID: 180-37750-5

Matrix: Sediment Lab File ID: 31017K14.D

Analysis Method: 8260C Date Collected: 10/13/2014 12:10

Sample wt/vol: 5.0007(g) Date Analyzed: 10/18/2014 01:34

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 76.0 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		21	2.0
79-34-5	1,1,2,2-Tetrachloroethane	ND		21	3.0
79-00-5	1,1,2-Trichloroethane	ND		21	3.5
75-34-3	1,1-Dichloroethane	ND		21	2.4
75-35-4	1,1-Dichloroethene	ND		21	3.5
95-50-1	1,2-Dichlorobenzene	ND		21	3.3
107-06-2	1,2-Dichloroethane	ND	*	21	2.6
78-87-5	1,2-Dichloropropane	ND		21	2.3
541-73-1	1,3-Dichlorobenzene	ND		21	2.7
106-46-7	1,4-Dichlorobenzene	ND		21	2.7
110-75-8	2-Chloroethyl vinyl ether	ND		42	3.2
107-02-8	Acrolein	ND		420	29
107-13-1	Acrylonitrile	ND		420	43
71-43-2	Benzene	ND		21	2.8
75-25-2	Bromoform	ND		21	1.8
74-83-9	Bromomethane	ND		21	3.1
56-23-5	Carbon tetrachloride	ND	*	21	1.9
108-90-7	Chlorobenzene	ND		21	3.2
67-66-3	Chloroform	ND		21	2.4
74-87-3	Chloromethane	ND		21	3.5
124-48-1	Chlorodibromomethane	ND		21	3.0
10061-01-5	cis-1,3-Dichloropropene	ND		21	2.8
75-27-4	Dichlorobromomethane	ND		21	2.3
100-41-4	Ethylbenzene	ND		21	2.7
75-09-2	Methylene Chloride	ND		21	2.8
127-18-4	Tetrachloroethene	ND		21	2.8
108-88-3	Toluene	5.1	J B	21	3.0
156-60-5	trans-1,2-Dichloroethene	ND		21	2.5
10061-02-6	trans-1,3-Dichloropropene	ND		21	2.5
79-01-6	Trichloroethene	ND		21	2.7
75-01-4	Vinyl chloride	ND		21	2.0
75-00-3	Chloroethane	ND		21	6.4

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B02 Lab Sample ID: 180-37750-5  
Matrix: Sediment Lab File ID: 31017K14.D  
Analysis Method: 8260C Date Collected: 10/13/2014 12:10  
Sample wt/vol: 5.0007(g) Date Analyzed: 10/18/2014 01:34  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 76.0 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		52-124
460-00-4	4-Bromofluorobenzene (Surr)	88		63-120
1868-53-7	Dibromofluoromethane (Surr)	90		68-121
2037-26-5	Toluene-d8 (Surr)	109		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K14.D  
 Lims ID: 180-37750-E-5-A Lab Sample ID: 180-37750-5  
 Client ID: SD-B02  
 Sample Type: Client  
 Inject. Date: 18-Oct-2014 01:34:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-E-5-A  
 Misc. Info.: 180-0003876-014180-0003876-014  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:39:21 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:39:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.677	4.761	-0.084	97	183338	5000.0	
* 2 Fluorobenzene (IS)	96	7.609	7.620	-0.011	98	630526	250.0	
* 3 Chlorobenzene-d5	119	10.681	10.693	-0.012	90	112655	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.011	13.023	-0.011	98	107967	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.867	6.866	0.001	93	118691	223.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.238	7.243	-0.005	93	160376	258.7	
\$ 7 Toluene-d8 (Surr)	98	9.252	9.257	-0.005	94	512789	273.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.843	11.861	-0.018	83	144722	219.8	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
30 Methylene Chloride	84		4.530				ND	M
32 Acrylonitrile	53		4.931				ND	
33 trans-1,2-Dichloroethene	96		4.962				ND	
36 1,1-Dichloroethane	63		5.546				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
53 Carbon tetrachloride	117		7.091				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
60 Trichloroethene	130		8.010				ND	
64 1,2-Dichloropropane	63		8.241				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
73 Toluene	91	9.312	9.324	-0.012	98	13229	6.14	
74 trans-1,3-Dichloropropene	75		9.531				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K14.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.877				ND	
81 Chlorodibromomethane	129		10.115				ND	
83 Chlorobenzene	112		10.723				ND	
86 Ethylbenzene	106		10.832				ND	
90 Bromoform	173		11.532				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

Report Date: 18-Oct-2014 10:39:21

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K14.D

Injection Date: 18-Oct-2014 01:34:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-E-5-A

Lab Sample ID: 180-37750-5

Worklist Smp#: 14

Client ID: SD-B02

Purge Vol: 5.000 mL

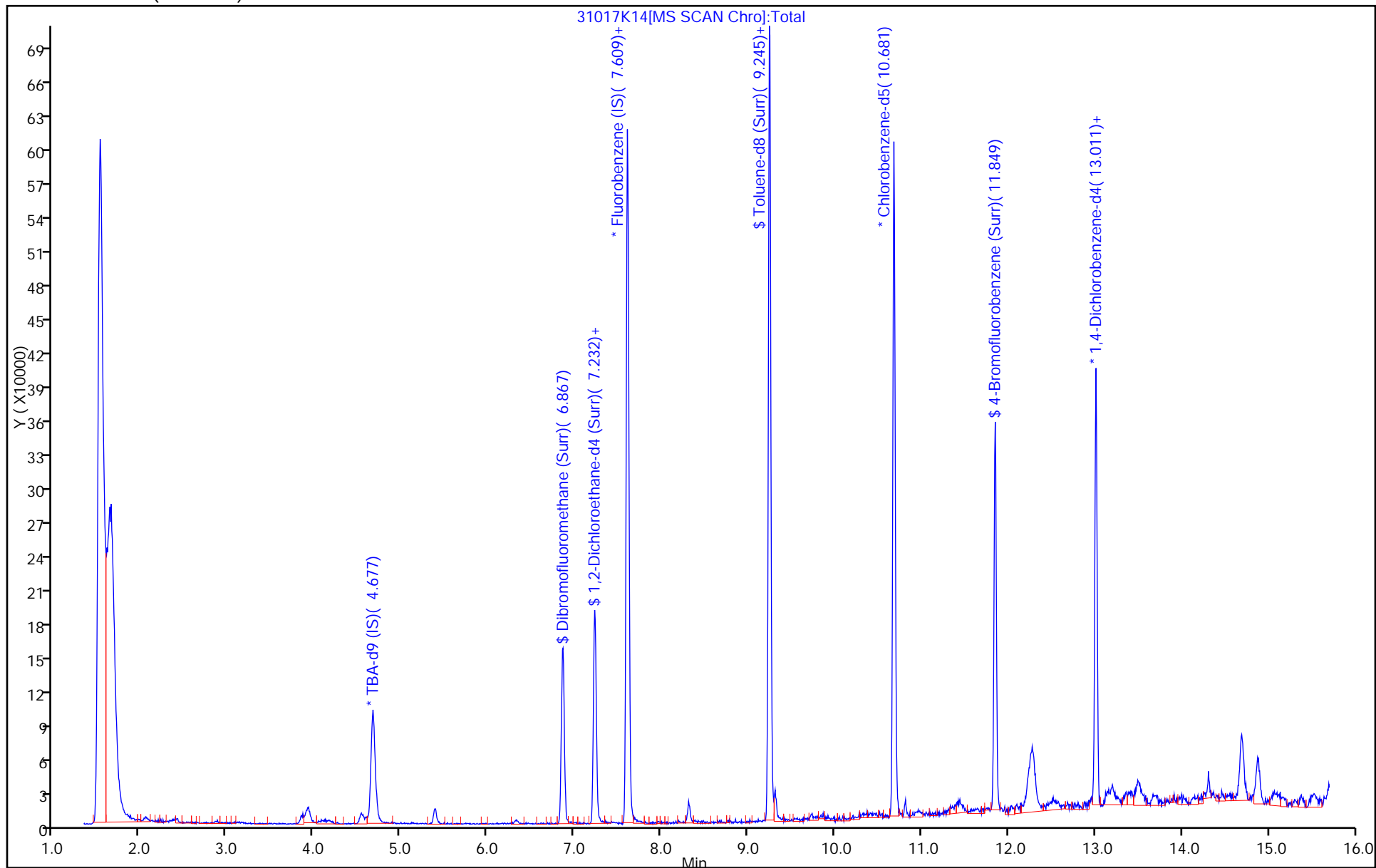
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K14.D

Injection Date: 18-Oct-2014 01:34:30

Instrument ID: CHHP3

Lims ID: 180-37750-E-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 10099

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

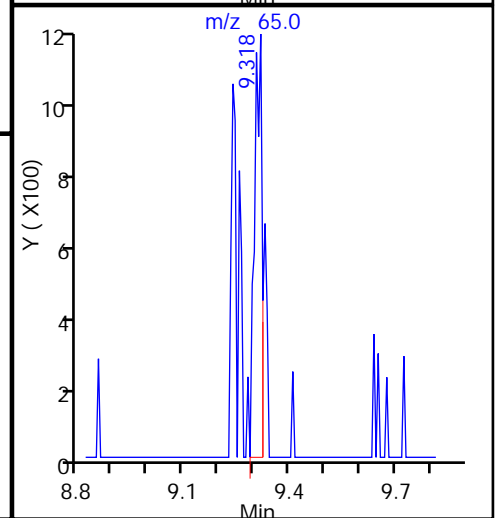
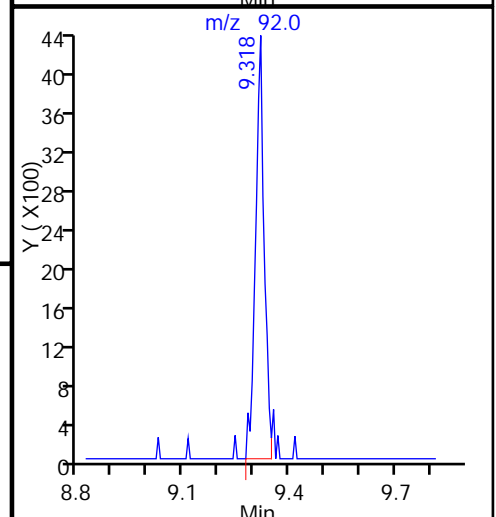
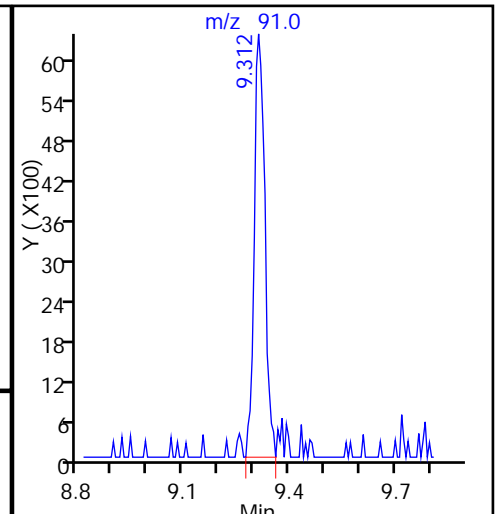
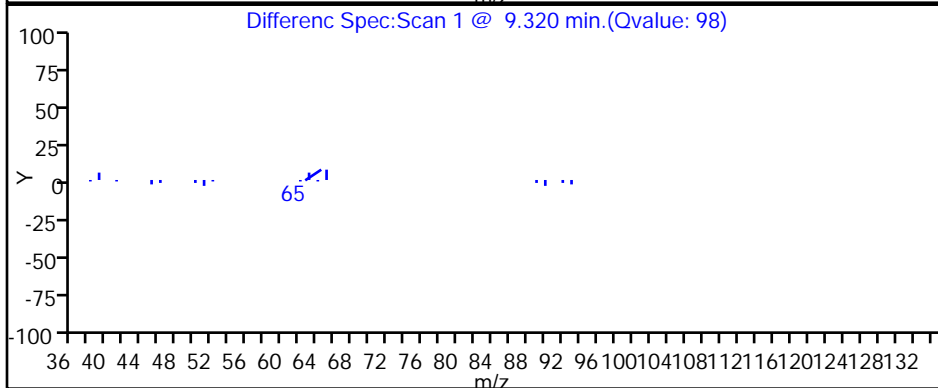
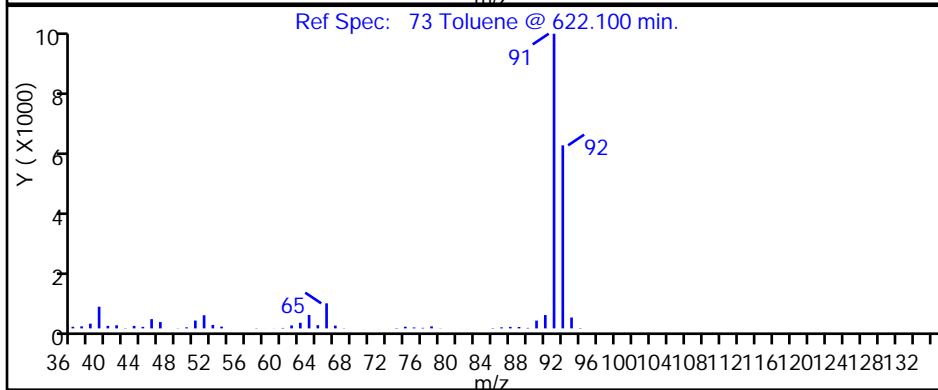
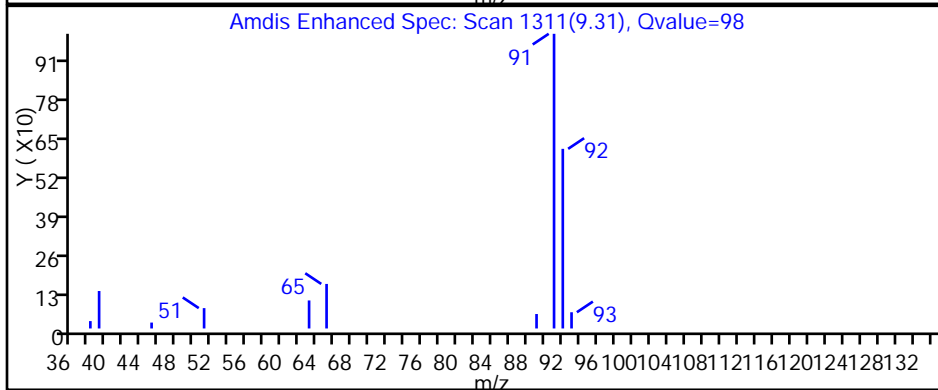
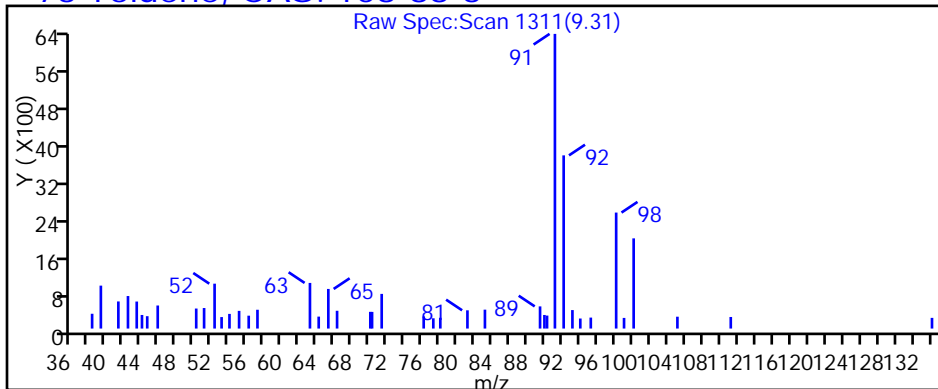
Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 73 Toluene, CAS: 108-88-3



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6

Matrix: Sediment Lab File ID: 31017K15.D

Analysis Method: 8260C Date Collected: 10/13/2014 12:10

Sample wt/vol: 5.0004(g) Date Analyzed: 10/18/2014 01:56

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 72.9 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		18	1.8
79-34-5	1,1,2,2-Tetrachloroethane	ND		18	2.6
79-00-5	1,1,2-Trichloroethane	ND		18	3.1
75-34-3	1,1-Dichloroethane	ND		18	2.1
75-35-4	1,1-Dichloroethene	ND		18	3.1
95-50-1	1,2-Dichlorobenzene	ND		18	2.9
107-06-2	1,2-Dichloroethane	ND	*	18	2.3
78-87-5	1,2-Dichloropropane	ND		18	2.0
541-73-1	1,3-Dichlorobenzene	ND		18	2.4
106-46-7	1,4-Dichlorobenzene	ND		18	2.3
110-75-8	2-Chloroethyl vinyl ether	ND		37	2.9
107-02-8	Acrolein	ND		370	26
107-13-1	Acrylonitrile	ND		370	38
71-43-2	Benzene	ND		18	2.5
75-25-2	Bromoform	ND		18	1.6
74-83-9	Bromomethane	ND		18	2.7
56-23-5	Carbon tetrachloride	ND	*	18	1.6
108-90-7	Chlorobenzene	ND		18	2.8
67-66-3	Chloroform	ND		18	2.2
74-87-3	Chloromethane	ND		18	3.1
124-48-1	Chlorodibromomethane	ND		18	2.6
10061-01-5	cis-1,3-Dichloropropene	ND		18	2.5
75-27-4	Dichlorobromomethane	ND		18	2.1
100-41-4	Ethylbenzene	ND		18	2.4
75-09-2	Methylene Chloride	ND		18	2.5
127-18-4	Tetrachloroethene	ND		18	2.5
108-88-3	Toluene	4.2	J B	18	2.7
156-60-5	trans-1,2-Dichloroethene	ND		18	2.2
10061-02-6	trans-1,3-Dichloropropene	ND		18	2.2
79-01-6	Trichloroethene	ND		18	2.4
75-01-4	Vinyl chloride	ND		18	1.7
75-00-3	Chloroethane	ND		18	5.7



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6  
Matrix: Sediment Lab File ID: 31017K15.D  
Analysis Method: 8260C Date Collected: 10/13/2014 12:10  
Sample wt/vol: 5.0004(g) Date Analyzed: 10/18/2014 01:56  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 72.9 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		52-124
460-00-4	4-Bromofluorobenzene (Surr)	88		63-120
1868-53-7	Dibromofluoromethane (Surr)	93		68-121
2037-26-5	Toluene-d8 (Surr)	112		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K15.D  
 Lims ID: 180-37750-C-6-A Lab Sample ID: 180-37750-6  
 Client ID: SD-B02-FD  
 Sample Type: Client  
 Inject. Date: 18-Oct-2014 01:56:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-6-A  
 Misc. Info.: 180-0003876-015180-0003876-015  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:39:39 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:39:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.678	4.761	-0.083	96	179080	5000.0	
* 2 Fluorobenzene (IS)	96	7.610	7.620	-0.010	98	589249	250.0	
* 3 Chlorobenzene-d5	119	10.682	10.693	-0.011	90	107113	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.012	13.023	-0.010	96	102756	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.862	6.866	-0.004	93	114872	231.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.233	7.243	-0.010	93	157105	271.2	
\$ 7 Toluene-d8 (Surr)	98	9.246	9.257	-0.011	94	497379	278.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.850	11.861	-0.011	82	136952	218.8	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
30 Methylene Chloride	84		4.530				ND	
32 Acrylonitrile	53		4.931				ND	
33 trans-1,2-Dichloroethene	96		4.962				ND	
36 1,1-Dichloroethane	63		5.546				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
53 Carbon tetrachloride	117		7.091				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
60 Trichloroethene	130		8.010				ND	
64 1,2-Dichloropropane	63		8.241				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
73 Toluene	91	9.313	9.324	-0.011	98	11625	5.68	
74 trans-1,3-Dichloropropene	75		9.531				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.877				ND	
81 Chlorodibromomethane	129		10.115				ND	
83 Chlorobenzene	112		10.723				ND	
86 Ethylbenzene	106		10.832				ND	
90 Bromoform	173		11.532				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K15.D

Injection Date: 18-Oct-2014 01:56:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-6-A

Lab Sample ID: 180-37750-6

Worklist Smp#: 15

Client ID: SD-B02-FD

Purge Vol: 5.000 mL

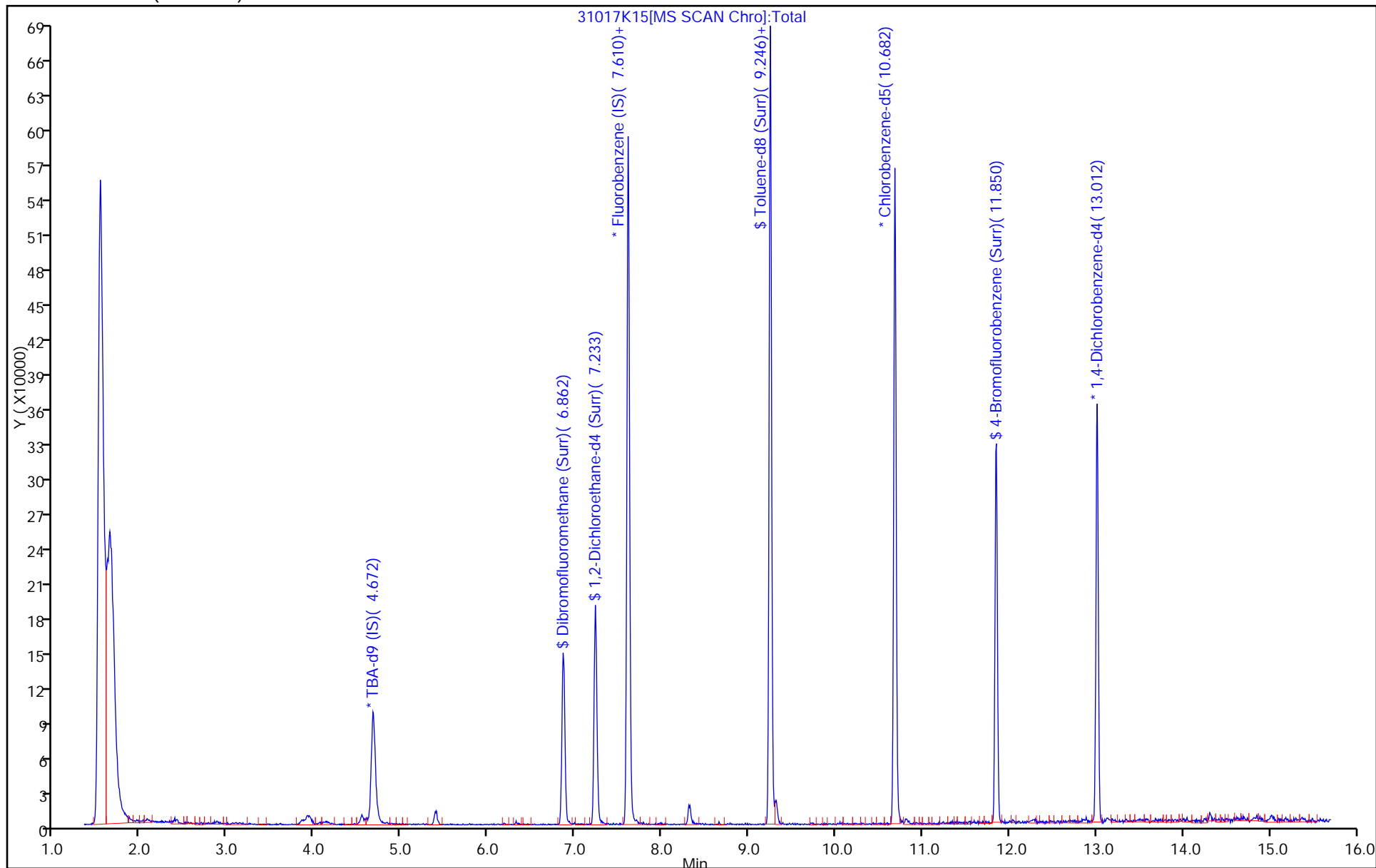
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K15.D

Injection Date: 18-Oct-2014 01:56:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 10099

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

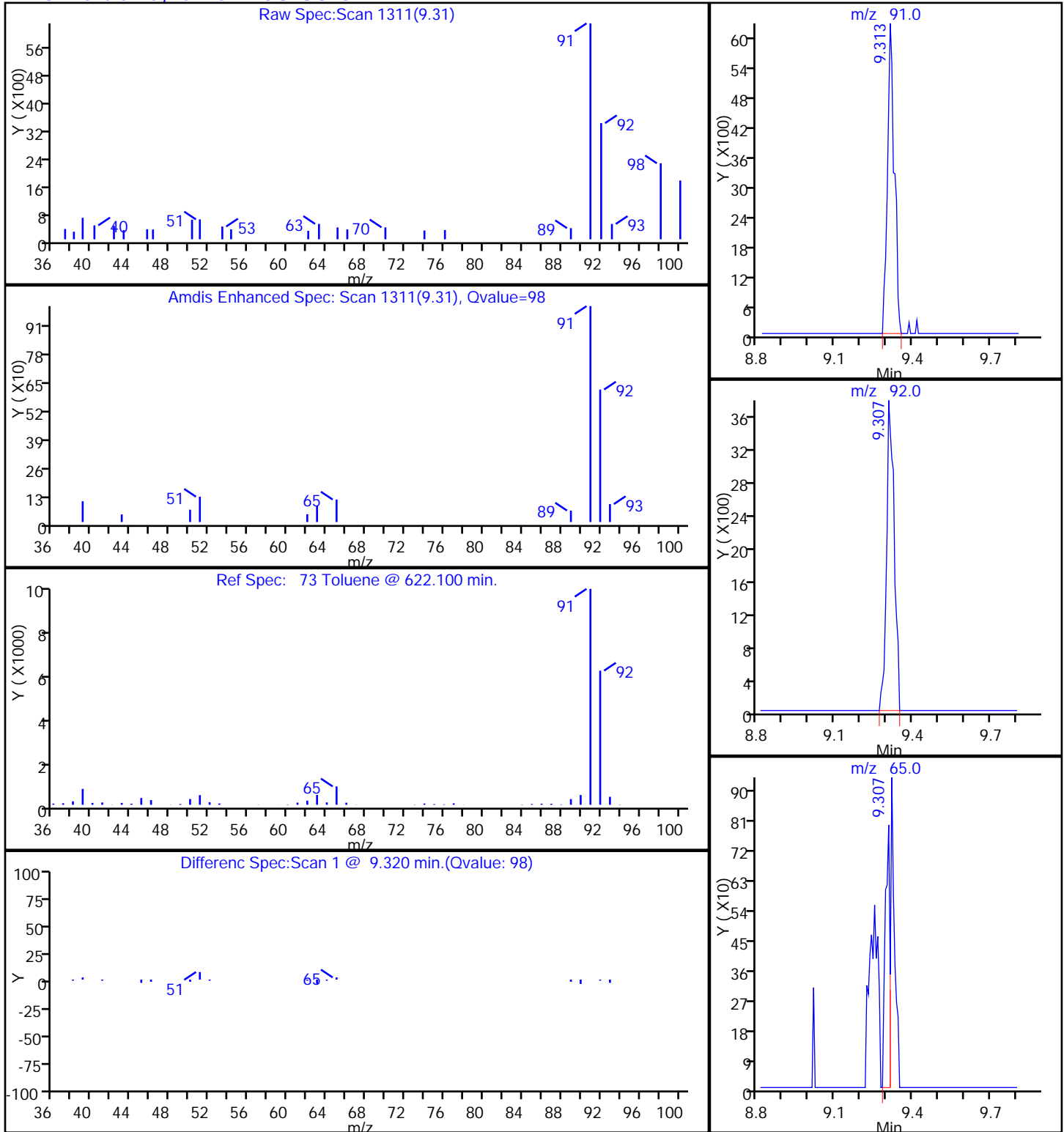
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

**73 Toluene, CAS: 108-88-3**

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7

Matrix: Sediment Lab File ID: 31017K16.D

Analysis Method: 8260C Date Collected: 10/13/2014 15:30

Sample wt/vol: 5.0006(g) Date Analyzed: 10/18/2014 02:19

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 32.2 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		7.4	0.72
79-34-5	1,1,2,2-Tetrachloroethane	ND		7.4	1.1
79-00-5	1,1,2-Trichloroethane	ND		7.4	1.2
75-34-3	1,1-Dichloroethane	ND		7.4	0.85
75-35-4	1,1-Dichloroethene	ND		7.4	1.3
95-50-1	1,2-Dichlorobenzene	ND		7.4	1.2
107-06-2	1,2-Dichloroethane	ND	*	7.4	0.90
78-87-5	1,2-Dichloropropane	ND		7.4	0.80
541-73-1	1,3-Dichlorobenzene	ND		7.4	0.97
106-46-7	1,4-Dichlorobenzene	ND		7.4	0.94
110-75-8	2-Chloroethyl vinyl ether	ND		15	1.1
107-02-8	Acrolein	ND		150	10
107-13-1	Acrylonitrile	ND		150	15
71-43-2	Benzene	ND		7.4	1.0
75-25-2	Bromoform	ND		7.4	0.65
74-83-9	Bromomethane	ND		7.4	1.1
56-23-5	Carbon tetrachloride	ND	*	7.4	0.66
108-90-7	Chlorobenzene	ND		7.4	1.1
67-66-3	Chloroform	ND		7.4	0.86
74-87-3	Chloromethane	ND		7.4	1.3
124-48-1	Chlorodibromomethane	ND		7.4	1.0
10061-01-5	cis-1,3-Dichloropropene	ND		7.4	1.0
75-27-4	Dichlorobromomethane	ND		7.4	0.83
100-41-4	Ethylbenzene	ND		7.4	0.95
75-09-2	Methylene Chloride	ND		7.4	0.99
127-18-4	Tetrachloroethene	ND		7.4	1.0
108-88-3	Toluene	1.9	J B	7.4	1.1
156-60-5	trans-1,2-Dichloroethene	ND		7.4	0.88
10061-02-6	trans-1,3-Dichloropropene	ND		7.4	0.88
79-01-6	Trichloroethene	ND		7.4	0.97
75-01-4	Vinyl chloride	ND		7.4	0.69
75-00-3	Chloroethane	ND		7.4	2.3

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7  
Matrix: Sediment Lab File ID: 31017K16.D  
Analysis Method: 8260C Date Collected: 10/13/2014 15:30  
Sample wt/vol: 5.0006(g) Date Analyzed: 10/18/2014 02:19  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 32.2 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		52-124
460-00-4	4-Bromofluorobenzene (Surr)	94		63-120
1868-53-7	Dibromofluoromethane (Surr)	91		68-121
2037-26-5	Toluene-d8 (Surr)	106		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K16.D  
 Lims ID: 180-37750-C-7-A Lab Sample ID: 180-37750-7  
 Client ID: SD-C01  
 Sample Type: Client  
 Inject. Date: 18-Oct-2014 02:19:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-7-A  
 Misc. Info.: 180-0003876-016180-0003876-016  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:39:58 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:39:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.674	4.761	-0.087	99	176502	5000.0	
* 2 Fluorobenzene (IS)	96	7.612	7.620	-0.008	98	668810	250.0	
* 3 Chlorobenzene-d5	119	10.684	10.693	-0.009	91	137398	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.008	13.023	-0.014	97	156812	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.864	6.866	-0.002	91	128131	227.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.235	7.243	-0.008	94	171657	261.1	
\$ 7 Toluene-d8 (Surr)	98	9.249	9.257	-0.008	94	608173	265.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.846	11.861	-0.015	83	189554	236.1	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
30 Methylene Chloride	84		4.530				ND	
32 Acrylonitrile	53		4.931				ND	
33 trans-1,2-Dichloroethene	96		4.962				ND	
36 1,1-Dichloroethane	63		5.546				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
53 Carbon tetrachloride	117		7.091				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
60 Trichloroethene	130		8.010				ND	
64 1,2-Dichloropropane	63		8.241				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
73 Toluene	91	9.315	9.324	-0.009	96	16656	6.34	
74 trans-1,3-Dichloropropene	75		9.531				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.877				ND	
81 Chlorodibromomethane	129		10.115				ND	
83 Chlorobenzene	112		10.723				ND	
86 Ethylbenzene	106		10.832				ND	
90 Bromoform	173		11.532				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K16.D

Injection Date: 18-Oct-2014 02:19:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-7-A

Lab Sample ID: 180-37750-7

Worklist Smp#: 16

Client ID: SD-C01

Purge Vol: 5.000 mL

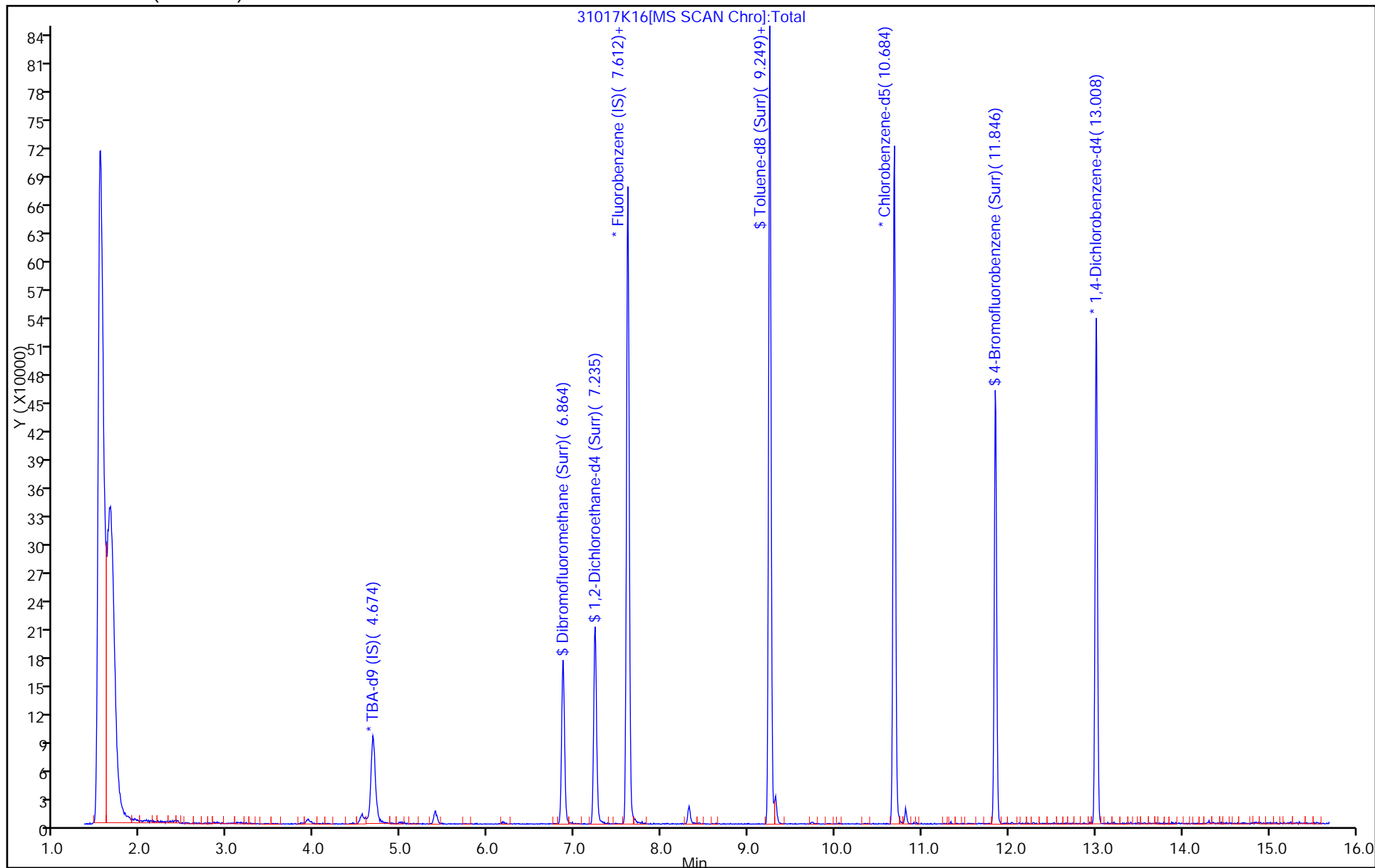
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K16.D

Injection Date: 18-Oct-2014 02:19:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-7-A

Lab Sample ID: 180-37750-7

Client ID: SD-C01

Operator ID: 10099

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

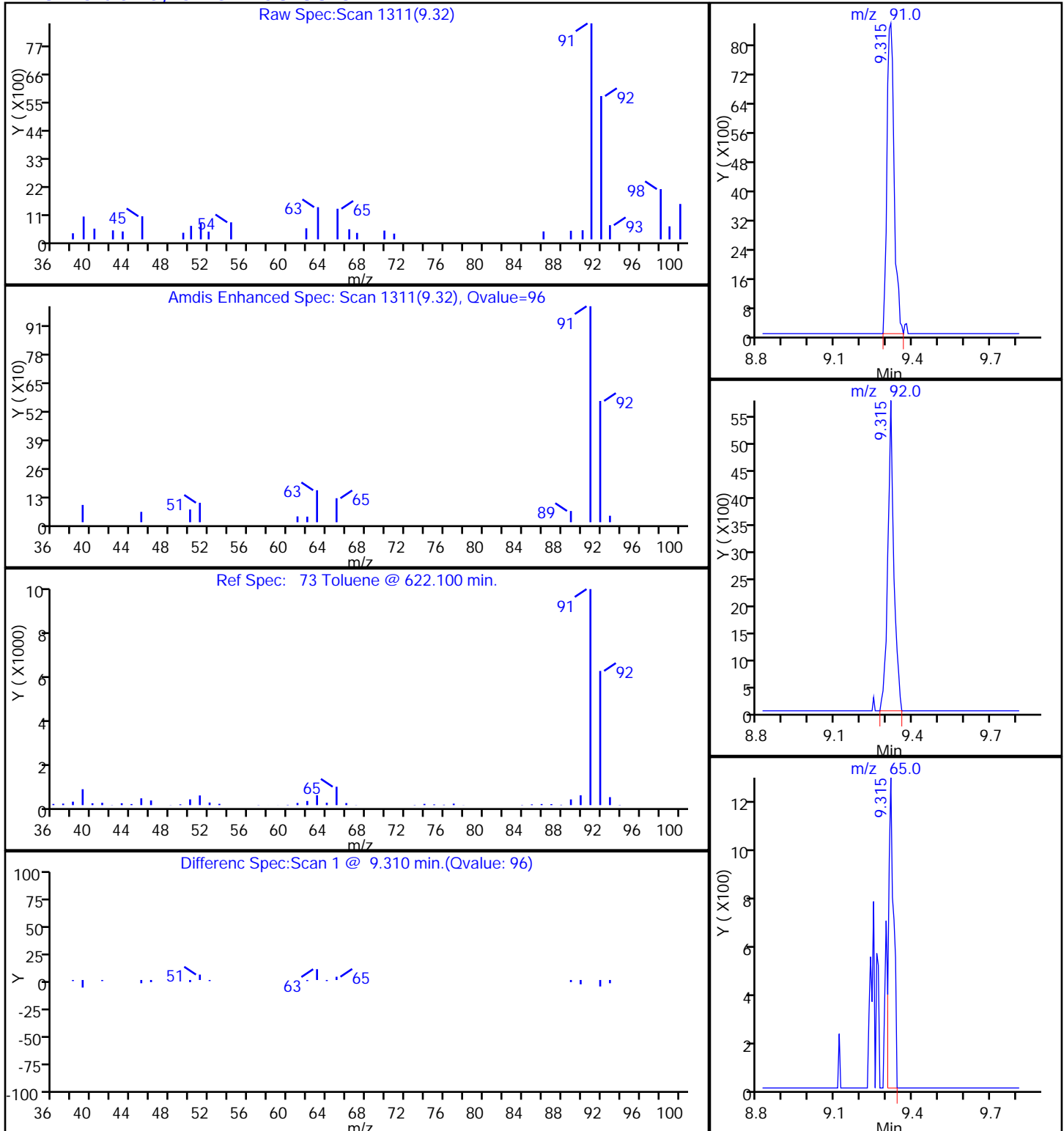
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

**73 Toluene, CAS: 108-88-3**

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-C02 Lab Sample ID: 180-37750-8

Matrix: Sediment Lab File ID: 31017K17.D

Analysis Method: 8260C Date Collected: 10/13/2014 14:50

Sample wt/vol: 5.0009(g) Date Analyzed: 10/18/2014 02:42

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 42.1 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		8.6	0.84
79-34-5	1,1,2,2-Tetrachloroethane	ND		8.6	1.2
79-00-5	1,1,2-Trichloroethane	ND		8.6	1.4
75-34-3	1,1-Dichloroethane	ND		8.6	0.99
75-35-4	1,1-Dichloroethene	ND		8.6	1.5
95-50-1	1,2-Dichlorobenzene	ND		8.6	1.4
107-06-2	1,2-Dichloroethane	ND	*	8.6	1.1
78-87-5	1,2-Dichloropropane	ND		8.6	0.94
541-73-1	1,3-Dichlorobenzene	ND		8.6	1.1
106-46-7	1,4-Dichlorobenzene	ND		8.6	1.1
110-75-8	2-Chloroethyl vinyl ether	ND		17	1.3
107-02-8	Acrolein	ND		170	12
107-13-1	Acrylonitrile	ND		170	18
71-43-2	Benzene	ND		8.6	1.2
75-25-2	Bromoform	ND		8.6	0.76
74-83-9	Bromomethane	ND		8.6	1.3
56-23-5	Carbon tetrachloride	ND	*	8.6	0.77
108-90-7	Chlorobenzene	ND		8.6	1.3
67-66-3	Chloroform	ND		8.6	1.0
74-87-3	Chloromethane	ND		8.6	1.5
124-48-1	Chlorodibromomethane	ND		8.6	1.2
10061-01-5	cis-1,3-Dichloropropene	ND		8.6	1.2
75-27-4	Dichlorobromomethane	ND		8.6	0.97
100-41-4	Ethylbenzene	ND		8.6	1.1
75-09-2	Methylene Chloride	ND		8.6	1.2
127-18-4	Tetrachloroethene	ND		8.6	1.2
108-88-3	Toluene	2.2	J B	8.6	1.3
156-60-5	trans-1,2-Dichloroethene	ND		8.6	1.0
10061-02-6	trans-1,3-Dichloropropene	ND		8.6	1.0
79-01-6	Trichloroethene	ND		8.6	1.1
75-01-4	Vinyl chloride	ND		8.6	0.81
75-00-3	Chloroethane	ND		8.6	2.7

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-C02 Lab Sample ID: 180-37750-8  
Matrix: Sediment Lab File ID: 31017K17.D  
Analysis Method: 8260C Date Collected: 10/13/2014 14:50  
Sample wt/vol: 5.0009(g) Date Analyzed: 10/18/2014 02:42  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 42.1 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		52-124
460-00-4	4-Bromofluorobenzene (Surr)	93		63-120
1868-53-7	Dibromofluoromethane (Surr)	90		68-121
2037-26-5	Toluene-d8 (Surr)	108		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K17.D  
 Lims ID: 180-37750-C-8-A Lab Sample ID: 180-37750-8  
 Client ID: SD-C02  
 Sample Type: Client  
 Inject. Date: 18-Oct-2014 02:42:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-8-A  
 Misc. Info.: 180-0003876-017180-0003876-017  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:40:17 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:40:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.681	4.761	-0.080	98	176687	5000.0	
* 2 Fluorobenzene (IS)	96	7.613	7.620	-0.007	98	634441	250.0	
* 3 Chlorobenzene-d5	119	10.685	10.693	-0.008	91	124039	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.009	13.023	-0.013	97	128461	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.859	6.866	-0.007	92	119626	224.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.236	7.243	-0.007	93	168143	269.6	
\$ 7 Toluene-d8 (Surr)	98	9.249	9.257	-0.008	94	559223	270.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.847	11.861	-0.014	83	167777	231.5	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
30 Methylene Chloride	84		4.530				ND	
32 Acrylonitrile	53		4.931				ND	
33 trans-1,2-Dichloroethene	96		4.962				ND	
36 1,1-Dichloroethane	63		5.546				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
53 Carbon tetrachloride	117		7.091				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
60 Trichloroethene	130		8.010				ND	
64 1,2-Dichloropropane	63		8.241				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
73 Toluene	91	9.316	9.324	-0.008	96	15153	6.39	
74 trans-1,3-Dichloropropene	75		9.531				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K17.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.877				ND	
81 Chlorodibromomethane	129		10.115				ND	
83 Chlorobenzene	112		10.723				ND	
86 Ethylbenzene	106		10.832				ND	
90 Bromoform	173		11.532				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K17.D

Injection Date: 18-Oct-2014 02:42:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-8-A

Lab Sample ID: 180-37750-8

Worklist Smp#: 17

Client ID: SD-C02

Purge Vol: 5.000 mL

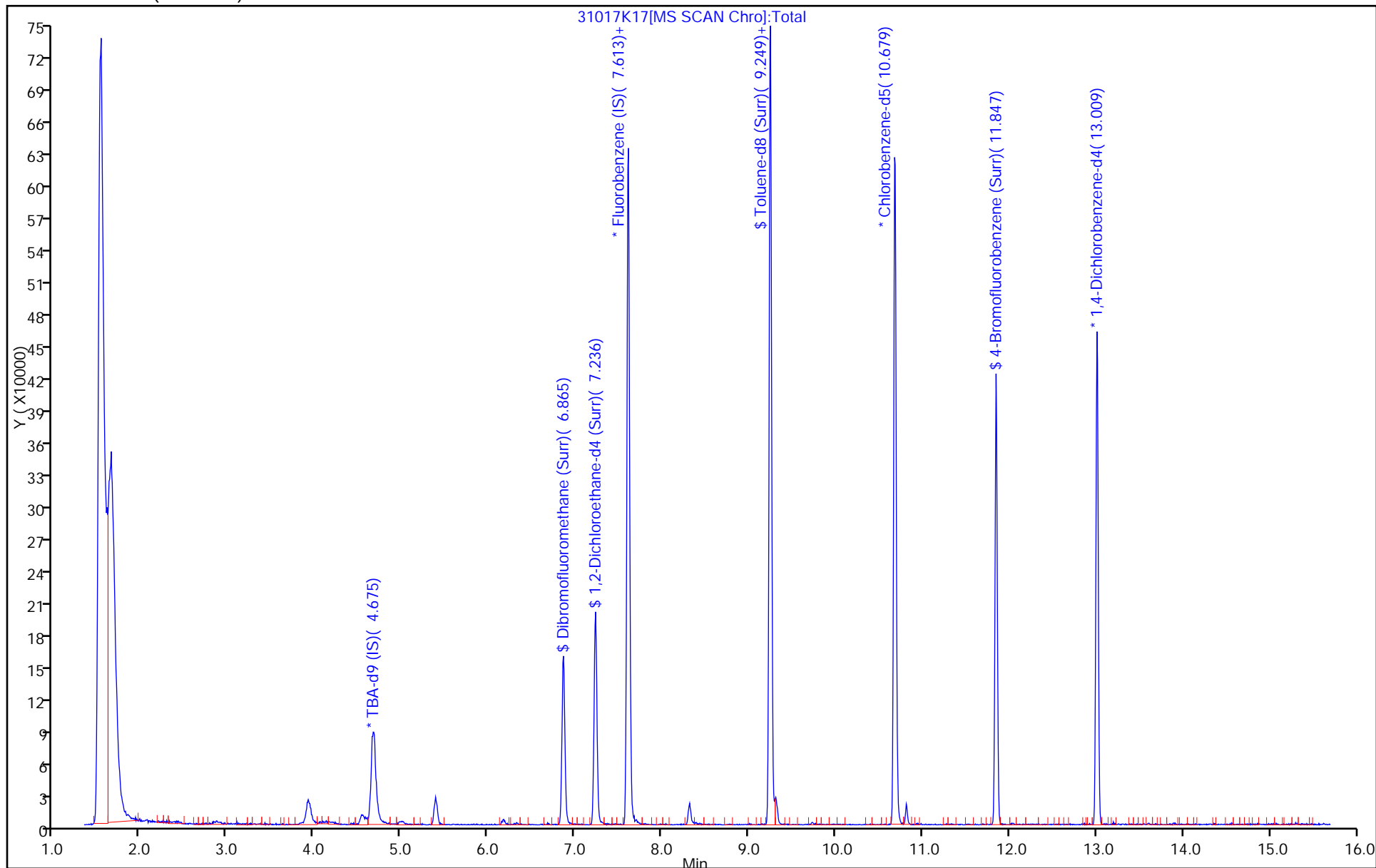
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K17.D

Injection Date: 18-Oct-2014 02:42:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 10099

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

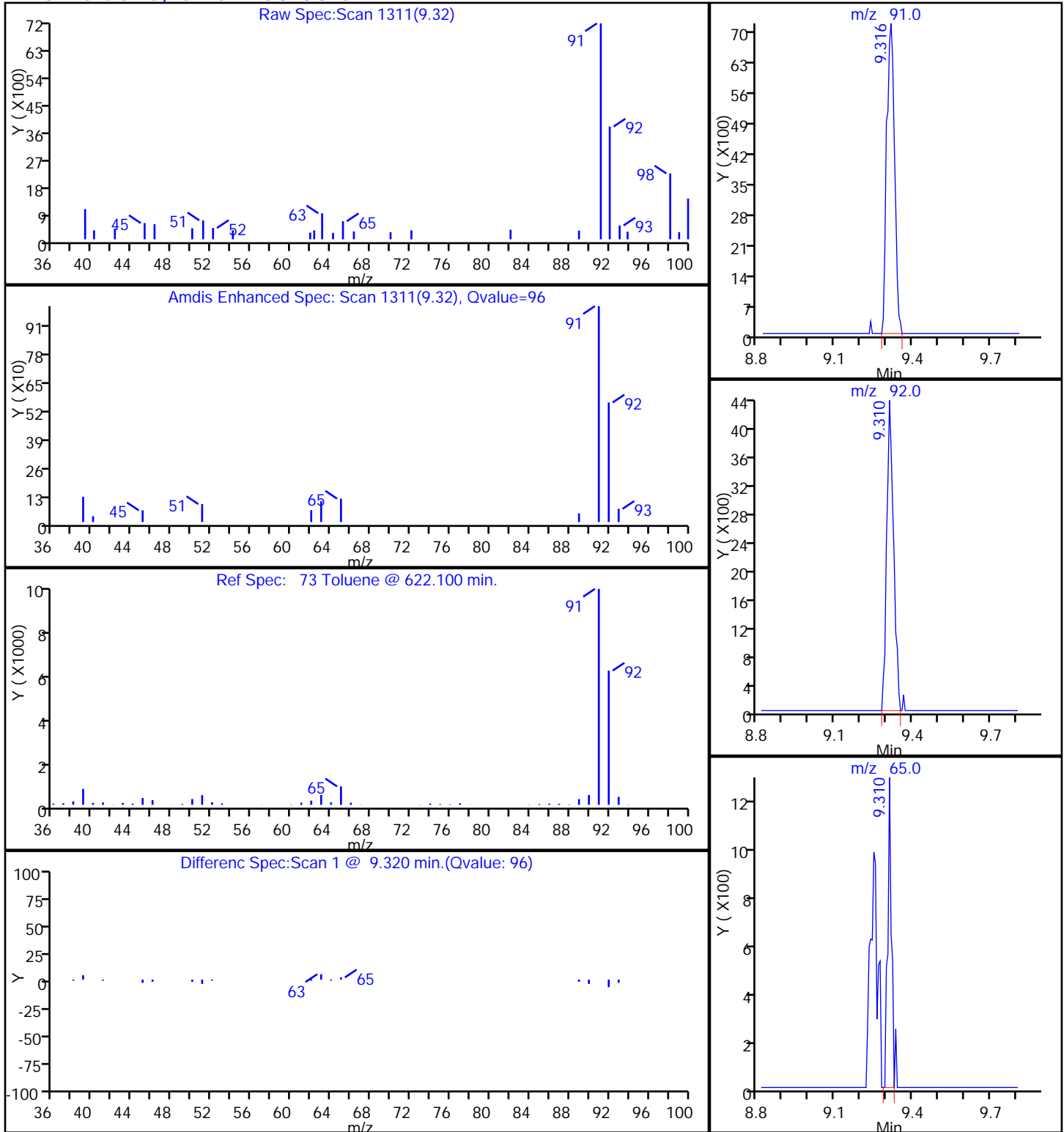
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

**73 Toluene, CAS: 108-88-3**

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-C03 Lab Sample ID: 180-37750-9

Matrix: Sediment Lab File ID: 31017K18.D

Analysis Method: 8260C Date Collected: 10/13/2014 14:30

Sample wt/vol: 5.0015(g) Date Analyzed: 10/18/2014 03:04

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 76.6 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		21	2.1
79-34-5	1,1,2,2-Tetrachloroethane	ND		21	3.1
79-00-5	1,1,2-Trichloroethane	ND		21	3.6
75-34-3	1,1-Dichloroethane	ND		21	2.5
75-35-4	1,1-Dichloroethene	ND		21	3.6
95-50-1	1,2-Dichlorobenzene	ND		21	3.4
107-06-2	1,2-Dichloroethane	ND	*	21	2.6
78-87-5	1,2-Dichloropropane	ND		21	2.3
541-73-1	1,3-Dichlorobenzene	ND		21	2.8
106-46-7	1,4-Dichlorobenzene	ND		21	2.7
110-75-8	2-Chloroethyl vinyl ether	ND		43	3.3
107-02-8	Acrolein	ND		430	30
107-13-1	Acrylonitrile	ND		430	44
71-43-2	Benzene	ND		21	2.9
75-25-2	Bromoform	ND		21	1.9
74-83-9	Bromomethane	ND		21	3.2
56-23-5	Carbon tetrachloride	ND	*	21	1.9
108-90-7	Chlorobenzene	ND		21	3.2
67-66-3	Chloroform	ND		21	2.5
74-87-3	Chloromethane	ND		21	3.6
124-48-1	Chlorodibromomethane	ND		21	3.0
10061-01-5	cis-1,3-Dichloropropene	ND		21	2.9
75-27-4	Dichlorobromomethane	ND		21	2.4
100-41-4	Ethylbenzene	ND		21	2.8
75-09-2	Methylene Chloride	ND		21	2.9
127-18-4	Tetrachloroethene	ND		21	2.9
108-88-3	Toluene	5.7	J B	21	3.1
156-60-5	trans-1,2-Dichloroethene	ND		21	2.6
10061-02-6	trans-1,3-Dichloropropene	ND		21	2.6
79-01-6	Trichloroethene	ND		21	2.8
75-01-4	Vinyl chloride	ND		21	2.0
75-00-3	Chloroethane	ND		21	6.6

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-C03 Lab Sample ID: 180-37750-9  
Matrix: Sediment Lab File ID: 31017K18.D  
Analysis Method: 8260C Date Collected: 10/13/2014 14:30  
Sample wt/vol: 5.0015(g) Date Analyzed: 10/18/2014 03:04  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 76.6 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		52-124
460-00-4	4-Bromofluorobenzene (Surr)	88		63-120
1868-53-7	Dibromofluoromethane (Surr)	92		68-121
2037-26-5	Toluene-d8 (Surr)	110		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K18.D  
 Lims ID: 180-37750-C-9-A Lab Sample ID: 180-37750-9  
 Client ID: SD-C03  
 Sample Type: Client  
 Inject. Date: 18-Oct-2014 03:04:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-9-A  
 Misc. Info.: 180-0003876-018180-0003876-018  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:44:59 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:44:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.675	4.761	-0.086	98	174215	5000.0	
* 2 Fluorobenzene (IS)	96	7.613	7.620	-0.007	98	598957	250.0	
* 3 Chlorobenzene-d5	119	10.685	10.693	-0.008	91	107556	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.009	13.023	-0.013	97	103223	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.865	6.866	-0.001	93	115962	230.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.236	7.243	-0.007	93	152259	258.6	
\$ 7 Toluene-d8 (Surr)	98	9.249	9.257	-0.008	94	491564	274.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.847	11.861	-0.014	82	137633	219.0	
11 Chloromethane	50		1.951				ND	
12 Vinyl chloride	62		2.103				ND	
14 Bromomethane	94		2.486				ND	
15 Chloroethane	64		2.638				ND	
20 Acrolein	56		3.593				ND	
21 1,1-Dichloroethene	96		3.770				ND	
30 Methylene Chloride	84		4.530				ND	M
32 Acrylonitrile	53		4.931				ND	
33 trans-1,2-Dichloroethene	96		4.962				ND	
36 1,1-Dichloroethane	63		5.546				ND	
49 Chloroform	83		6.690				ND	
50 1,1,1-Trichloroethane	97		6.890				ND	
53 Carbon tetrachloride	117		7.091				ND	
55 Benzene	78		7.310				ND	
56 1,2-Dichloroethane	62		7.322				ND	
60 Trichloroethene	130		8.010				ND	
64 1,2-Dichloropropane	63		8.241				ND	
68 Dichlorobromomethane	83		8.521				ND	
70 2-Chloroethyl vinyl ether	63		8.837				ND	
71 cis-1,3-Dichloropropene	75		8.983				ND	
73 Toluene	91	9.310	9.324	-0.014	96	13782	6.70	
74 trans-1,3-Dichloropropene	75		9.531				ND	
76 1,1,2-Trichloroethane	97		9.719				ND	

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K18.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
77 Tetrachloroethene	164		9.877				ND	
81 Chlorodibromomethane	129		10.115				ND	
83 Chlorobenzene	112		10.723				ND	
86 Ethylbenzene	106		10.832				ND	
90 Bromoform	173		11.532				ND	
93 1,1,2,2-Tetrachloroethane	83		11.988				ND	
105 1,3-Dichlorobenzene	146		12.962				ND	
107 1,4-Dichlorobenzene	146		13.047				ND	
111 1,2-Dichlorobenzene	146		13.424				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K18.D

Injection Date: 18-Oct-2014 03:04:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-9-A

Lab Sample ID: 180-37750-9

Worklist Smp#: 18

Client ID: SD-C03

Purge Vol: 5.000 mL

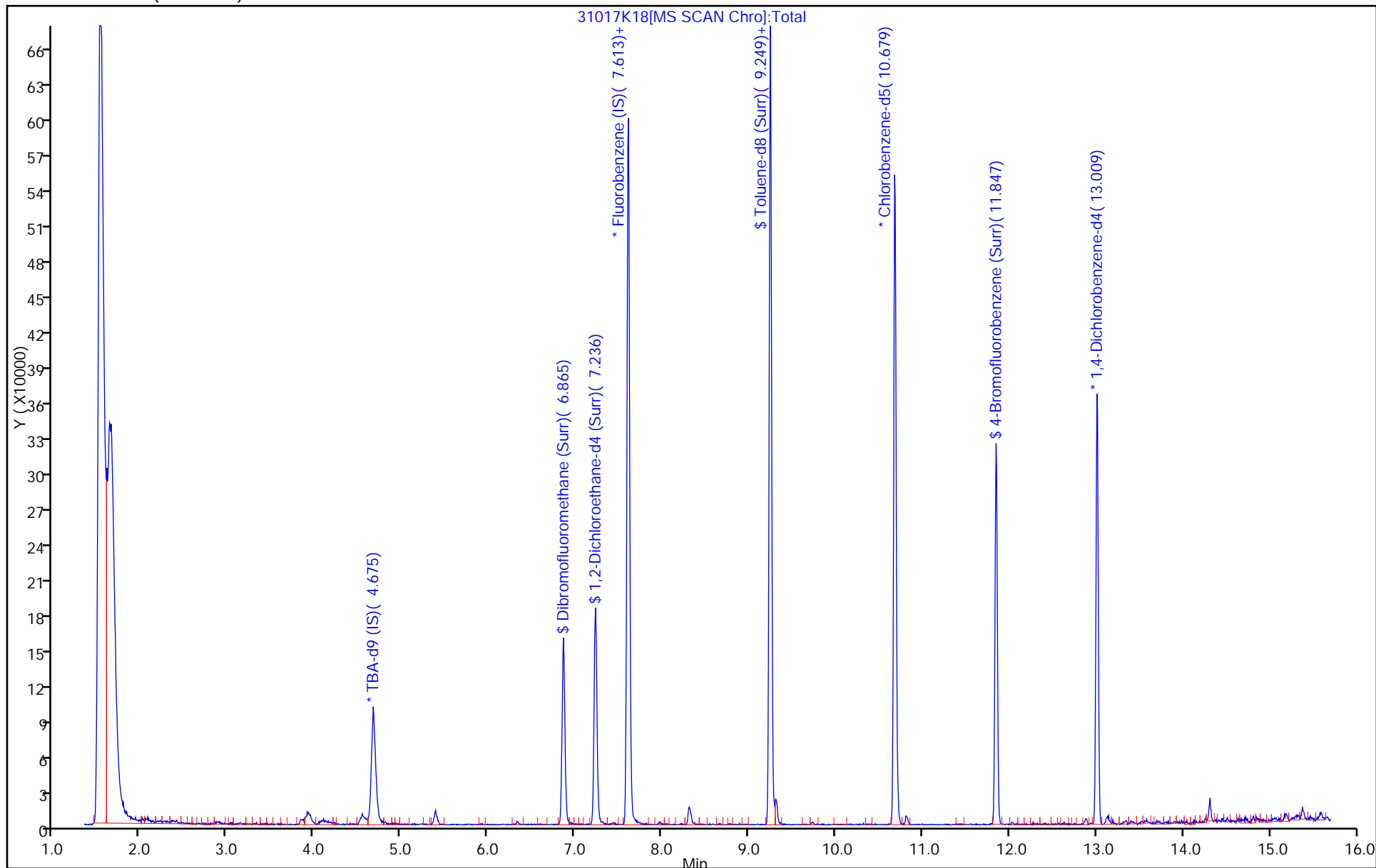
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K18.D

Injection Date: 18-Oct-2014 03:04:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 10099

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

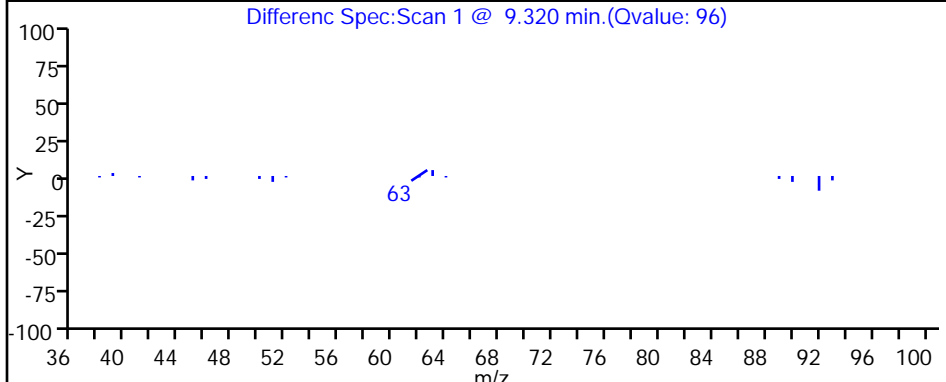
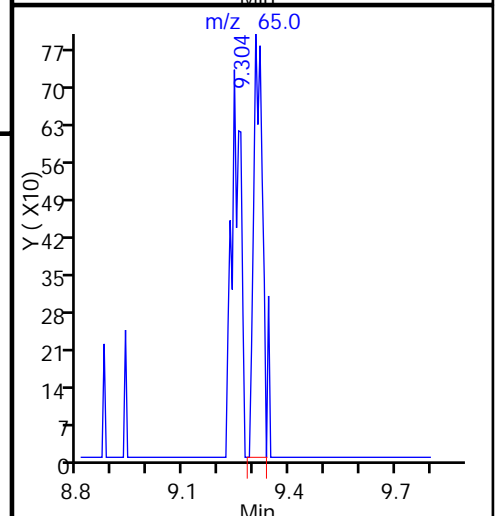
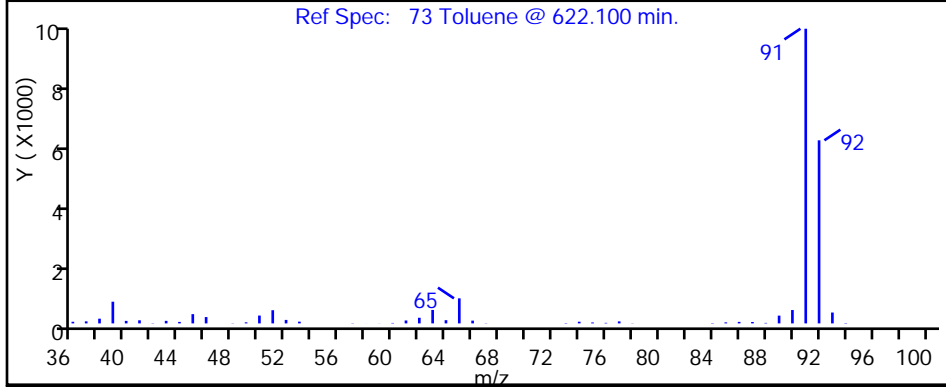
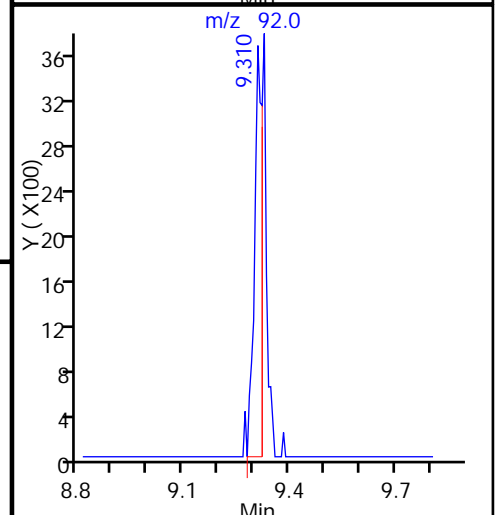
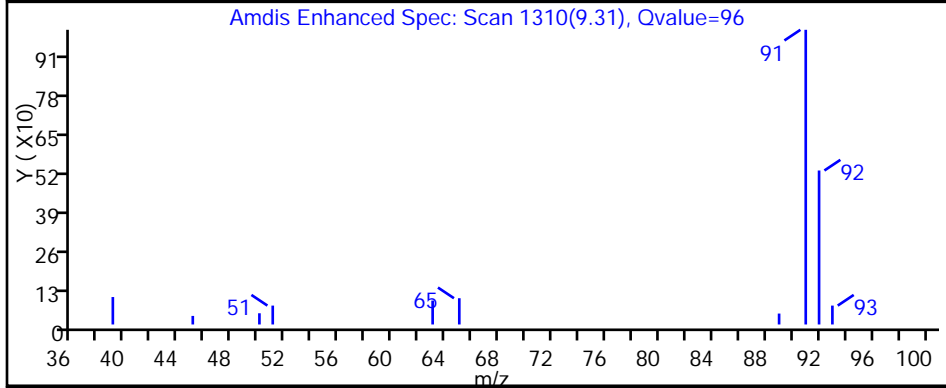
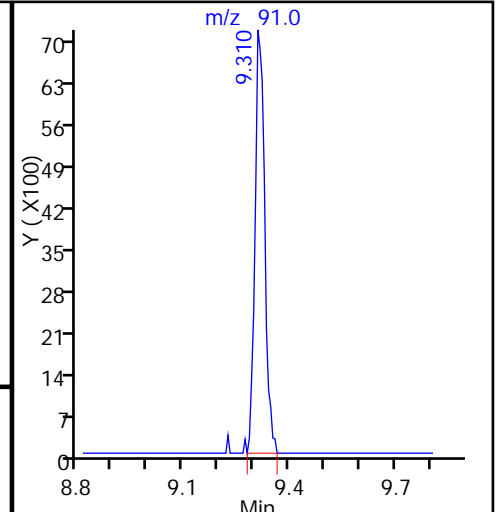
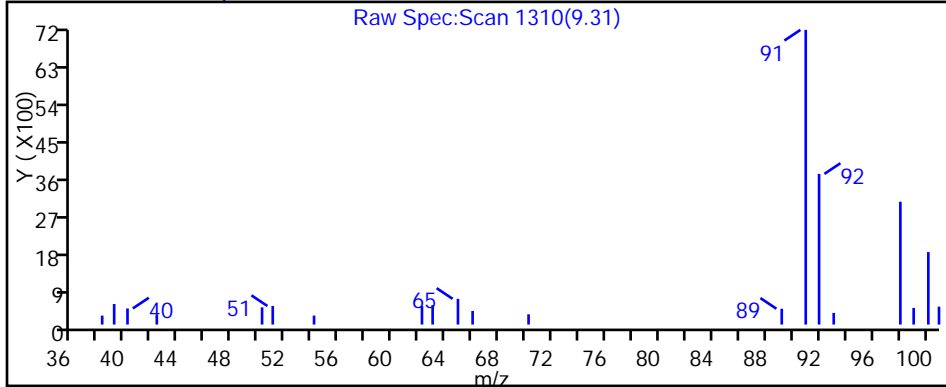
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

**73 Toluene, CAS: 108-88-3**

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 98978

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/07/2014 05:54 Calibration End Date: 03/07/2014 08:21 Calibration ID: 14217

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-98978/2	3030702.D
Level 2	IC 180-98978/3	3030703.D
Level 3	IC 180-98978/4	3030704.D
Level 4	IC 180-98978/5	3030705.D
Level 5	IC 180-98978/6	3030706.D
Level 6	IC 180-98978/7	3030707.D
Level 7	IC 180-98978/8	3030708.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Ethanol	0.2949 0.1975	0.2113 0.1966	0.1990	0.2150	0.2027	Ave		0.2167			0.0100	16.0		20.0			
Isopropyl alcohol	0.0054 0.0060	0.0057 0.0065	0.0056	0.0066	0.0062	Ave		0.0060		*	0.0100	7.9		20.0			
Acetonitrile	0.0137 0.0071	0.0072 0.0076	0.0072	0.0073	0.0077	Qua	1.1676	0.0066	0.0000001	*	0.0100				1.0000		0.9900
Chloroprene	0.4948 0.5354	0.4652 0.5302	0.4871	0.5113	0.5127	Ave		0.5052			0.0100	4.9		20.0			
Isopropyl ether	0.8136 0.8182	0.8032 0.7812	0.7857	0.8088	0.7990	Ave		0.8014			0.0100	1.7		20.0			
Tert-butyl ethyl ether	0.5891 0.5983	0.5532 0.5938	0.5699	0.5881	0.5831	Ave		0.5822			0.0100	2.7		20.0			
Propionitrile	0.0163 0.0162	0.0162 0.0170	0.0159	0.0165	0.0160	Ave		0.0163			0.0100	2.3		20.0			
Ethyl acetate	0.1057 0.1120	0.0997 0.1171	0.1050	0.1077	0.1087	Ave		0.1080			0.0100	5.1		20.0			
Methacrylonitrile	0.0801 0.0810	0.0774 0.0758	0.0773	0.0812	0.0817	Ave		0.0792			0.0100	2.9		20.0			
Isooctane	1.5557 1.5637	1.5074 1.3557	1.5111	1.5699	1.5590	Ave		1.5175			0.0100	5.0		20.0			
Tert-amyl methyl ether	0.3915 0.4140	0.3793 0.4203	0.3896	0.4065	0.4030	Ave		0.4006			0.0100	3.6		20.0			
n-Butanol	0.0019 0.0029	0.0022 0.0033	0.0024	0.0029	0.0028	Ave		0.0026		*	0.0100	18.0		20.0			
Ethyl acrylate	0.6642 0.8266	0.6838 0.9056	0.7848	0.7929	0.7917	Ave		0.7785			0.0100	11.0		20.0			
Methyl methacrylate	0.0730 0.0900	0.0769 0.0971	0.0799	0.0860	0.0875	Ave		0.0843			0.0100	9.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 98978

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/07/2014 05:54 Calibration End Date: 03/07/2014 08:21 Calibration ID: 14217

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0529 0.0784	0.0633 0.0929	0.0671	0.0679	0.0660	Ave		0.0698			0.0100	18.0		20.0			
2-Chloroethyl vinyl ether	0.0781 0.0937	0.0765 0.0995	0.0917	0.0867	0.0912	Ave		0.0882			0.0100	9.5		20.0			
n-Butyl acetate	0.7829 0.9159	0.7735 1.0116	0.8225	0.9178	0.8958	Ave		0.8743			0.0100	9.8		20.0			
Cyclohexanone	0.0121 0.0164	0.0139 0.0183	0.0141	0.0179	0.0163	Ave		0.0156			0.0100	15.0		20.0			
1,2,3-Trimethylbenzene	2.8761 3.0547	3.1490 2.6858	3.1363	3.1925	3.1008	Ave		3.0279			0.0100	6.0		20.0			
Benzyl chloride	0.4250 0.8208	0.5277 0.8947	0.5966	0.7043	0.6794	Lin1	-17.42	0.8617			0.0100				0.9930		0.9900
1,3,5-Trichlorobenzene	1.1415 1.3150	1.2996 1.2428	1.3004	1.3271	1.2823	Ave		1.2727			0.0100	5.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 98978

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/07/2014 05:54 Calibration End Date: 03/07/2014 08:21 Calibration ID: 14217

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-98978/2	3030702.D
Level 2	IC 180-98978/3	3030703.D
Level 3	IC 180-98978/4	3030704.D
Level 4	IC 180-98978/5	3030705.D
Level 5	IC 180-98978/6	3030706.D
Level 6	IC 180-98978/7	3030707.D
Level 7	IC 180-98978/8	3030708.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethanol	TBA	Ave	7294 111289	9576 241079	23397	40575	47619	1250 31250	2500 62500	6250	10000	12500
Isopropyl alcohol	FB	Ave	3973 106744	8443 244416	20362	37966	43455	250 6250	500 12500	1250	2000	2500
Acetonitrile	FB	Qua	10142 127488	10786 287028	25949	41569	53849	250 6250	500 12500	1250	2000	2500
Chloroprene	FB	Ave	36685 956461	69330 2003518	176499	292723	357818	25.0 625	50.0 1250	125	200	250
Isopropyl ether	FB	Ave	60319 1461640	119714 2951994	284708	463024	557600	25.0 625	50.0 1250	125	200	250
Tert-butyl ethyl ether	FB	Ave	43672 1068718	82459 2243796	206511	336658	406939	25.0 625	50.0 1250	125	200	250
Propionitrile	FB	Ave	12116 289604	24138 644155	57696	94392	111429	250 6250	500 12500	1250	2000	2500
Ethyl acetate	FB	Ave	15678 400105	29725 884889	76091	123285	151666	50.0 1250	100 2500	250	400	500
Methacrylonitrile	FB	Ave	59363 1446272	115404 2863713	280131	464644	569860	250 6250	500 12500	1250	2000	2500
Isooctane	FB	Ave	115330 2793295	224667 5123119	547610	898762	1087978	25.0 625	50.0 1250	125	200	250
Tert-amyl methyl ether	FB	Ave	29022 739581	56532 1588322	141188	232708	281251	25.0 625	50.0 1250	125	200	250
n-Butanol	FB	Ave	3512 129255	8189 310688	21806	41517	48486	625 15625	1250 31250	3125	5000	6250
Ethyl acrylate	CBZ	Ave	10078 317465	21091 731316	59085	95543	116091	25.0 625	50.0 1250	125	200	250
Methyl methacrylate	FB	Ave	10825 321468	22938 734000	57912	98443	122148	50.0 1250	100 2500	250	400	500
2-Nitropropane	CBZ	Ave	1605 60208	3905 150018	10104	16371	19344	50.0 1250	100 2500	250	400	500

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 98978

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/07/2014 05:54 Calibration End Date: 03/07/2014 08:21 Calibration ID: 14217

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
2-Chloroethyl vinyl ether	FB	Ave	11581 334860	22801 751981	66489	99312	127256	50.0 1250	100 2500	250	400	500
n-Butyl acetate	CBZ	Ave	11880 351772	23859 816891	61923	110589	131370	25.0 625	50.0 1250	125	200	250
Cyclohexanone	CBZ	Ave	3670 125969	8568 295468	21214	43086	47785	500 12500	1000 25000	2500	4000	5000
1,2,3-Trimethylbenzene	DCB	Ave	60413 1555613	127214 3013805	314392	509070	614512	25.0 625	50.0 1250	125	200	250
Benzyl chloride	DCB	Lin1	8927 418024	21317 1004007	59806	112305	134636	25.0 625	50.0 1250	125	200	250
1,3,5-Trichlorobenzene	DCB	Ave	23977 669669	52501 1394623	130354	211612	254130	25.0 625	50.0 1250	125	200	250

Curve Type Legend:

Ave = Average ISTD  
Lin1 = Linear 1/conc ISTD  
Qua = Quadratic ISTD

TestAmerica Laboratories  
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m

Instrument: CHHP3

Lims Location: 180

Lock State: Unlocked

Cpnd Order: Compound Type

Integrator: RTE

Last Modified: 10-Mar-2014 04:55:28

No.Compounds:135

## Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CHHP3\20140306-122.b

Inj Date : 06-Mar-2014 07:09:30, Sublist: chrom-MSVOA\_S\_CHHP3\*sub4

Ical Batch: \\PITCHROM\ChromData\CHHP3\20140307-141.b

Inj Date : 07-Mar-2014 05:54:30, Sublist: chrom-MSVOA\_S\_CHHP3\*sub3

Limit Group: VOA 8260C ICAL

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
* 1 TBA-d9 (IS)	78925	78318	82902	90032	96964	104283	114507
* 2 Fluorobenzene (IS)	620663	619766	618775	655368	691179	712983	800296
* 3 Dioxane-d8 (IS)	11671	10779	11313	11899	11962	14027	15606
* 4 Chlorobenzene-d5	132696	127358	127413	134702	143903	148838	166469
* 5 1,4-Dichlorobenzene-d4	188337	187288	197548	209314	211232	225142	247136
\$ 6 Dibromofluoromethane (	-5.7	-5.7	5.0	1.0	0.7	4.6	0.1
\$ 7 1,2-Dichloroethane-d4	-3.2	-1.0	1.1	-0.9	2.0	3.4	-1.4
\$ 8 Toluene-d8 (Surr)	-4.6	3.4	7.1	4.1	3.2	-0.2	-12.9
\$ 9 4-Bromofluorobenzene (	-7.9	-2.3	4.9	0.8	2.3	3.9	-1.7
10 Dichlorodifluoromethan	-0.9	-1.7	-1.8	1.9	0.1	2.8	-0.4
11 Chloromethane	3.8	-3.3	-3.5	1.0	1.6	2.4	-2.0
12 Vinyl chloride	-2.4	-2.2	-0.1	1.9	3.0	3.0	-3.1
13 Butadiene	2.9	-2.8	0.3	2.4	4.9	1.1	-8.7
14 Bromomethane	9.2	11.8	6.8	1.1	2.8	-11.7	-19.9
15 Chloroethane	* -64.6	-14.9	-7.3	-4.8	* 31.2	-7.2	1.0
16 Dichlorofluoromethane	10.8	3.8	3.8	3.0	1.1	-5.9	-16.7
17 Trichlorofluoromethane	-0.1	-1.5	3.3	0.5	2.6	2.2	-7.0
18 Ethanol	* 36.1	-2.5	-8.2	-0.8	-6.5	-8.9	-9.3
19 Ethyl ether	2.3	3.7	-2.2	-5.5	-1.2	3.0	-0.3
20 Acrolein	2.0	-1.6	-3.3	1.2	-0.7	4.7	-2.4
21 1,1-Dichloroethene	4.2	-4.2	-0.9	1.4	1.3	0.7	-2.5
22 1,1,2-Trichloro-1,2,2-	5.3	1.1	-1.1	-0.6	0.5	-1.1	-4.1
23 Acetone	* 51.7	8.1	-11.7	-7.0	1.8	1.6	-0.2
R7 24 Iodomethane	4.9	-3.0	0.5	2.5	-0.3	-0.6	-4.1
25 Carbon disulfide	-8.4	-6.1	-1.3	2.9	3.2	7.4	2.3
R7 26 Isopropyl alcohol	-10.6	-5.5	-6.2	10.7	3.9	-0.3	7.9
27 Acetonitrile	* 36.8	-25.6	-6.3	-0.5	7.2	-1.0	0.1
R7 28 3-Chloro-1-propene	-12.9	-12.6	0.8	6.8	2.5	7.5	8.0
R7 29 Methyl acetate	-1.7	-2.7	-3.3	-1.6	0.9	7.9	0.5
30 Methylene Chloride	13.4	-1.1	0.7	-2.4	-0.6	0.5	-0.1
31 2-Methyl-2-propanol	1.3	1.4	0.3	-1.3	-2.9	-1.3	2.4
32 Acrylonitrile	-4.7	-5.6	-3.2	1.8	5.1	6.2	0.6
33 trans-1,2-Dichloroethe	1.5	-2.8	1.0	2.5	-0.8	1.2	-2.8
34 Methyl tert-butyl ethe	-2.3	-1.3	-3.3	1.2	2.9	3.6	-0.8
35 Hexane	5.2	-1.1	-3.9	-0.4	-0.2	2.2	-1.9
36 1,1-Dichloroethane	5.1	-0.9	-1.3	0.7	-2.2	1.4	-2.8
37 Vinyl acetate	-19.8	-11.0	-6.0	4.2	3.8	13.9	15.0

Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
38 2-Chloro-1,3-butadiene	-2.1	-7.9	-3.6	1.2	1.5	6.0	4.9
39 Isopropyl ether	1.5	0.2	-2.0	0.9	-0.3	2.1	-2.5
40 Tert-butyl ethyl ether	1.2	-5.0	-2.1	1.0	0.2	2.8	2.0
41 2,2-Dichloropropane	-6.0	-8.3	-2.5	3.2	6.4	5.4	1.8
42 cis-1,2-Dichloroethene	-0.5	-2.6	0.8	1.4	-0.3	1.6	-0.4
43 2-Butanone (MEK)	0.3	4.1	-1.9	-2.5	3.6	4.0	-7.6
44 Propionitrile	0.2	-0.7	-2.4	1.1	-2.1	-0.6	4.5
45 Ethyl acetate	-2.1	-7.7	-2.8	-0.3	0.6	3.7	8.4
46 Methacrylonitrile	1.1	-2.2	-2.4	2.5	3.1	2.2	-4.3
47 Chlorobromomethane	3.1	-0.9	-1.9	0.1	-1.5	2.6	-1.5
48 Tetrahydrofuran	6.1	-7.6	-5.0	-0.6	-0.6	5.8	1.9
49 Chloroform	0.8	0.9	0.8	1.1	0.2	0.0	-3.8
50 1,1,1-Trichloroethane	-2.6	-4.3	-1.8	1.3	2.8	4.1	0.5
51 Cyclohexane	3.5	-2.7	-1.3	2.5	1.0	1.1	-4.1
53 1,1-Dichloropropene	-2.3	-3.4	3.8	2.8	-0.5	0.7	-1.1
52 Carbon tetrachloride	-9.0	-8.9	-3.5	2.8	2.2	8.3	8.1
54 Isobutyl alcohol	-18.8	-14.9	-3.6	2.5	9.3	15.0	10.4
R7							
55 Benzene	8.4	5.6	2.9	1.8	-1.5	-3.6	-13.7
56 1,2-Dichloroethane	1.3	-1.6	-0.2	1.5	-0.1	1.0	-1.9
57 Isooctane	2.5	-0.7	-0.4	3.5	2.7	3.0	-10.7
58 Tert-amyl methyl ether	-2.3	-5.3	-2.7	1.5	0.6	3.3	4.9
59 n-Heptane	0.8	-3.9	-4.2	1.7	2.3	5.6	-2.4
60 n-Butanol	-27.8	-16.2	-8.2	10.6	5.9	10.3	25.4
R7							
61 Trichloroethene	-1.0	-1.5	2.1	1.6	0.8	0.0	-2.0
62 Ethyl acrylate	-14.7	-12.2	0.8	1.9	1.7	6.2	16.3
63 Methylcyclohexane	0.0	-2.0	2.4	2.1	0.5	0.9	-4.0
64 1,2-Dichloropropane	0.3	-2.1	-3.4	1.0	-0.2	3.6	0.7
65 Dibromomethane	1.0	-3.7	0.0	1.5	-1.7	2.1	0.8
66 Methyl methacrylate	-13.4	-8.8	-5.3	1.9	3.8	6.7	15.1
67 1,4-Dioxane	1.0	-6.3	1.8	7.7	8.0	-3.6	-8.6
68 Dichlorobromomethane	-14.4	-8.4	-3.5	3.0	2.4	11.6	9.3
69 2-Nitropropane	-24.2	-9.3	-3.8	-2.6	-5.5	12.3	* 33.1
70 2-Chloroethyl vinyl et	-11.5	-13.3	4.0	-1.7	3.4	6.3	12.8
71 cis-1,3-Dichloropropen	-15.2	-11.9	-2.7	4.8	4.0	11.0	10.0
72 4-Methyl-2-pentanone (	-14.5	-13.6	-4.5	0.9	6.1	15.0	10.6
73 Toluene	7.1	4.4	3.3	5.2	0.9	-4.1	-16.7
74 trans-1,3-Dichloroprop	-17.9	-13.0	-1.4	3.2	6.6	10.8	11.8
75 Ethyl methacrylate	-24.5	-9.7	-4.2	5.0	6.0	13.1	14.2
76 1,1,2-Trichloroethane	2.6	-2.5	0.6	2.2	0.6	-1.1	-2.5
77 Tetrachloroethene	-1.2	5.1	2.1	2.0	-3.4	0.1	-4.6
78 1,3-Dichloropropane	-0.6	-0.2	0.8	0.9	-0.2	0.4	-1.0
79 2-Hexanone	-9.7	-12.3	-4.4	2.4	6.3	14.6	3.1
80 n-Butyl acetate	-10.5	-11.5	-5.9	5.0	2.5	4.8	15.7
81 Chlorodibromomethane	-22.5	-11.9	-3.9	3.7	3.5	14.6	16.5
82 Ethylene Dibromide	-6.8	-5.5	0.9	4.6	2.9	2.4	1.4
83 Chlorobenzene	4.6	2.8	4.4	3.2	-1.4	-3.1	-10.5
85 1,1,1,2-Tetrachloroeth	-12.6	-8.9	-1.5	6.5	3.9	6.3	6.2
86 Ethylbenzene	1.0	0.6	3.1	3.4	0.1	-0.9	-7.4
87 m-Xylene & p-Xylene	-0.6	-0.1	3.0	3.2	0.7	-1.0	-5.2
88 o-Xylene	-0.7	-6.6	3.4	5.0	0.8	2.4	-4.4
89 Styrene	-4.9	0.1	4.0	6.0	1.7	2.0	-8.8
90 Bromoform	* 63.0	12.3	-5.7	-5.8	-6.7	2.6	-0.2
91 Isopropylbenzene	1.3	2.4	5.7	8.6	1.9	-2.4	-17.4
92 Cyclohexanone	-22.3	-10.8	-9.5	14.9	4.7	5.4	17.6
93 1,1,2,2-Tetrachloroeth	-10.2	-5.1	-0.7	4.0	3.9	5.6	2.5
94 Bromobenzene	7.2	-4.2	1.1	-0.2	1.5	-0.8	-4.7
95 1,2,3-Trichloropropane	-13.5	6.8	-3.4	-1.8	7.6	2.3	2.1
96 trans-1,4-Dichloro-2-b	-7.9	-18.7	-6.8	0.2	7.4	12.6	13.3

Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
97 N-Propylbenzene	3.7	2.5	-1.1	-0.7	1.4	-1.2	-4.5
98 2-Chlorotoluene	7.0	0.6	-1.3	-0.8	2.0	-3.4	-4.1
99 1,3,5-Trimethylbenzene	3.5	2.9	2.8	3.4	3.9	-2.5	-13.9
100 4-Chlorotoluene	8.9	0.3	-2.4	-0.6	0.7	-2.3	-4.6
101 tert-Butylbenzene	5.5	-0.2	3.3	2.2	2.5	-1.7	-11.7
102 Pentachloroethane	-16.9	0.1	-4.5	8.1	2.4	5.0	5.8
103 1,2,4-Trimethylbenzene	3.0	3.7	4.2	3.0	2.8	-2.2	-14.6
104 sec-Butylbenzene	6.3	4.2	3.5	5.0	4.5	-4.1	-19.4
105 1,3-Dichlorobenzene	6.5	0.6	0.6	0.9	0.5	-2.4	-6.8
106 4-Isopropyltoluene	5.1	3.2	4.3	3.2	3.5	-2.6	-16.8
107 1,4-Dichlorobenzene	6.0	4.0	0.3	0.5	-1.4	-1.6	-7.8
108 1,2,3-Trimethylbenzene	-5.0	4.0	3.6	5.4	2.4	0.9	-11.3
109 Benzyl chloride	30.2	1.7	-14.6	-8.2	-13.1	-1.5	5.5
110 n-Butylbenzene	-3.1	-2.9	3.6	6.2	5.9	3.0	-12.5
111 1,2-Dichlorobenzene	3.0	5.0	0.0	-0.3	1.6	-1.1	-8.1
112 1,2-Dibromo-3-Chloropr R7	30.2	-5.8	-17.5	-5.0	-7.7	4.2	1.6
113 1,3,5-Trichlorobenzene	-10.3	2.1	2.2	4.3	0.8	3.3	-2.3
114 1,2,4-Trichlorobenzene	-12.9	-3.2	4.9	5.6	-0.2	7.2	-1.4
115 Hexachlorobutadiene	5.6	-2.9	-0.6	2.2	-5.2	4.0	-3.1
116 Naphthalene	-25.7	-9.0	3.8	7.0	7.2	12.4	4.3
117 1,2,3-Trichlorobenzene	-16.6	-4.1	3.1	9.0	0.7	6.5	1.5
118 2-Methylnaphthalene RB	* 92.0	10.6	-25.2	-1.1	-0.8	1.4	-0.1

## Icalib Error Legend

R7, Calibration Average RF &lt; Min. RF Limit

RB, Low Point Test Fails

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030702.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 07-Mar-2014 05:54:30 ALS Bottle#: 3 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:28 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:30:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.690	4.688	0.002	98	98924	5000.0	
* 2 Fluorobenzene (IS)	96	7.627	7.625	0.002	99	741340	250.0	
* 3 Dioxane-d8 (IS)	96	8.332	8.331	0.001	74	13586	5000.0	
* 4 Chlorobenzene-d5	119	10.698	10.696	0.002	87	151741	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.027	13.026	0.001	94	210050	250.0	
18 Ethanol	45	3.309	3.314	-0.005	90	7294	1701.1	M
26 Isopropyl alcohol	45	4.173	4.177	-0.004	48	3973	223.6	M
27 Acetonitrile	40	4.331	4.311	0.020	90	10142	342.0	
38 2-Chloro-1,3-butadiene	53	5.693	5.697	-0.004	86	36685	24.5	
39 Isopropyl ether	45	5.723	5.716	0.007	94	60319	25.4	
40 Tert-butyl ethyl ether	59	6.173	6.178	-0.005	97	43672	25.3	
44 Propionitrile	54	6.398	6.391	0.007	91	12116	250.5	
45 Ethyl acetate	43	6.441	6.439	0.002	94	15678	49.0	
46 Methacrylonitrile	41	6.581	6.585	-0.004	93	59363	252.8	
57 Isooctane	57	7.438	7.443	-0.005	95	115330	25.6	
58 Tert-amyl methyl ether	73	7.475	7.467	0.008	90	29022	24.4	
60 n-Butanol	56	7.961	7.960	0.001	68	3512	451.5	
62 Ethyl acrylate	55	8.144	8.136	0.008	57	10078	21.3	
66 Methyl methacrylate	69	8.375	8.379	-0.004	89	10825	43.3	
69 2-Nitropropane	41	8.746	8.756	-0.010	72	1605	37.9	
70 2-Chloroethyl vinyl ether	63	8.843	8.842	0.001	74	11581	44.3	
80 n-Butyl acetate	43	10.096	10.094	0.002	81	11880	22.4	
92 Cyclohexanone	55	11.799	11.791	0.008	43	3670	388.5	
102 Pentachloroethane	167	12.644	12.648	-0.004	69	7227	20.8	
108 1,2,3-Trimethylbenzene	105	13.100	13.098	0.002	94	60413	23.7	
109 Benzyl chloride	91	13.179	13.178	0.001	71	8927	32.5	
113 1,3,5-Trichlorobenzene	180	14.426	14.430	-0.004	92	23977	22.4	
118 2-Methylnaphthalene	142	16.712	16.717	-0.005	2	2129	48.0	M

QC Flag Legend

Review Flags

M - Manually Integrated



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030702.D

Injection Date: 07-Mar-2014 05:54:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

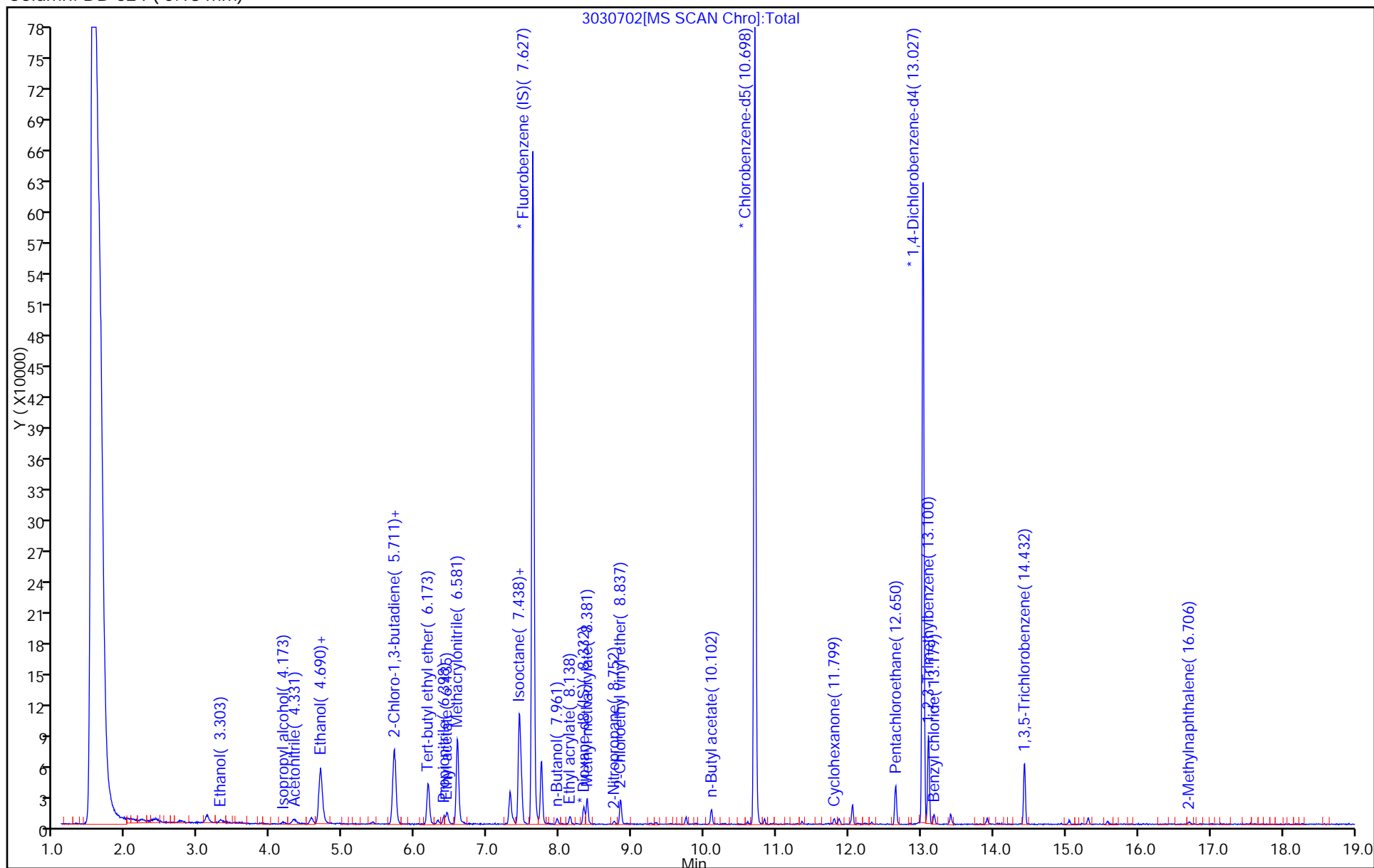
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030702.D

Injection Date: 07-Mar-2014 05:54:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

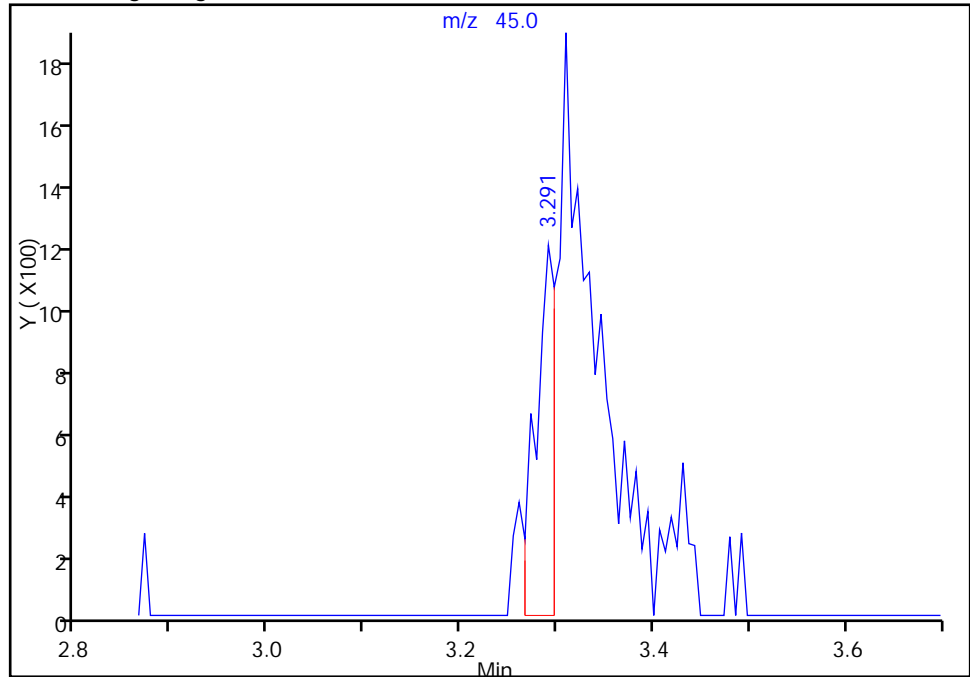
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 18 Ethanol, CAS: 64-17-5

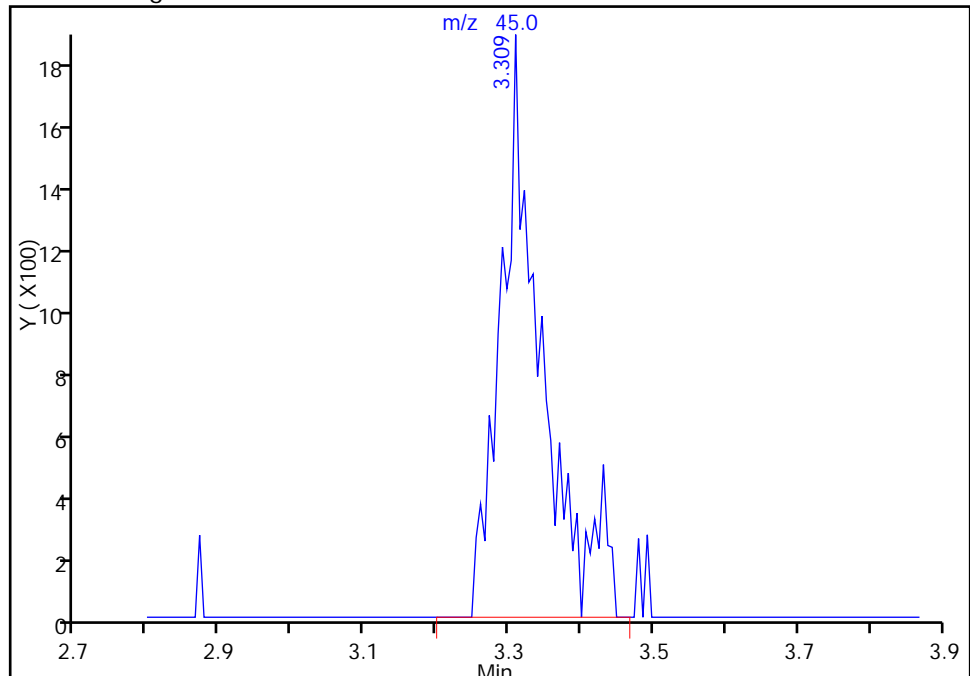
RT: 3.29  
Response: 1648  
Amount: 1531.9892

## Processing Integration Results



RT: 3.31  
Response: 7294  
Amount: 1701.0982

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:30:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030702.D

Injection Date: 07-Mar-2014 05:54:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

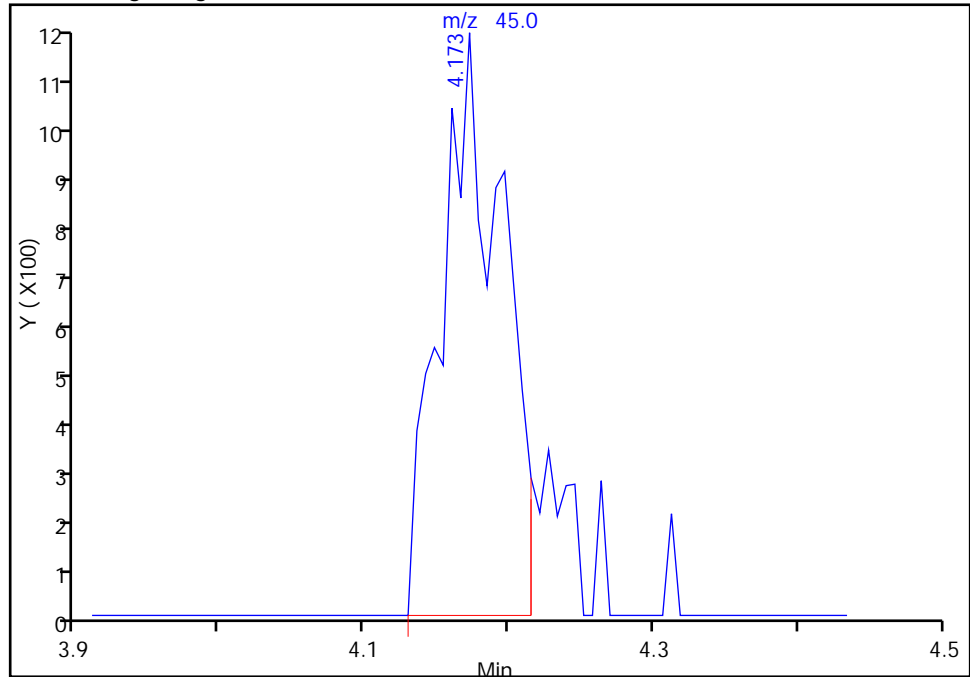
Column: DB-624 (0.18 mm)

Detector: MS SCAN

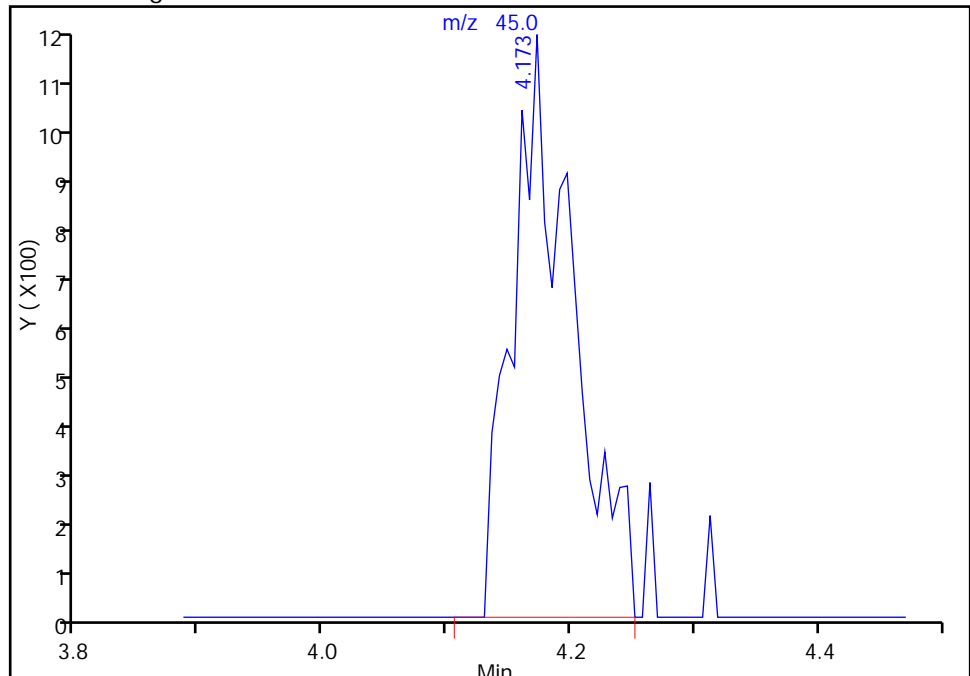
## 26 Isopropyl alcohol, CAS: 67-63-0

RT: 4.17  
Response: 3509  
Amount: 201.2150

## Processing Integration Results

RT: 4.17  
Response: 3973  
Amount: 223.5960

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:30:28

Audit Action: Manually Integrated

Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030703.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 07-Mar-2014 06:20:30 ALS Bottle#: 4 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD10  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:29 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:31:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.688	4.688	0.0	97	90652	5000.0	
* 2 Fluorobenzene (IS)	96	7.625	7.625	0.0	99	745238	250.0	
* 3 Dioxane-d8 (IS)	96	8.331	8.331	0.0	81	13021	5000.0	
* 4 Chlorobenzene-d5	119	10.697	10.696	0.001	86	154229	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.026	13.026	0.0	91	201989	250.0	
18 Ethanol	45	3.314	3.314	0.0	76	9576	2437.1	M
26 Isopropyl alcohol	45	4.177	4.177	0.0	69	8443	472.7	
27 Acetonitrile	40	4.317	4.311	0.006	93	10786	371.9	
38 2-Chloro-1,3-butadiene	53	5.698	5.697	0.001	90	69330	46.0	
39 Isopropyl ether	45	5.716	5.716	0.0	98	119714	50.1	
40 Tert-butyl ethyl ether	59	6.178	6.178	0.0	98	82459	47.5	
44 Propionitrile	54	6.403	6.391	0.012	96	24138	496.5	
45 Ethyl acetate	43	6.446	6.439	0.007	94	29725	92.3	
46 Methacrylonitrile	41	6.586	6.585	0.001	92	115404	488.8	
57 Isooctane	57	7.437	7.443	-0.006	95	224667	49.7	
58 Tert-amyl methyl ether	73	7.467	7.467	0.0	90	56532	47.3	
60 n-Butanol	56	7.954	7.960	-0.006	86	8189	1047.2	
62 Ethyl acrylate	55	8.142	8.136	0.006	88	21091	43.9	
66 Methyl methacrylate	69	8.374	8.379	-0.005	90	22938	91.2	
69 2-Nitropropane	41	8.751	8.756	-0.005	71	3905	90.7	
70 2-Chloroethyl vinyl ether	63	8.836	8.842	-0.006	87	22801	86.7	
80 n-Butyl acetate	43	10.095	10.094	0.0	94	23859	44.2	
92 Cyclohexanone	55	11.791	11.791	0.0	71	8568	892.5	
102 Pentachloroethane	167	12.649	12.648	0.001	81	16752	50.1	
108 1,2,3-Trimethylbenzene	105	13.105	13.098	0.007	95	127214	52.0	
109 Benzyl chloride	91	13.178	13.178	0.0	75	21317	50.8	
113 1,3,5-Trichlorobenzene	180	14.431	14.430	0.0	97	52501	51.1	
118 2-Methylnaphthalene	142	16.711	16.717	-0.006	10	3845	55.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Report Date: 10-Mar-2014 04:50:30

Chrom Revision: 2.2 28-Feb-2014 15:12:04

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030703.D

Injection Date: 07-Mar-2014 06:20:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

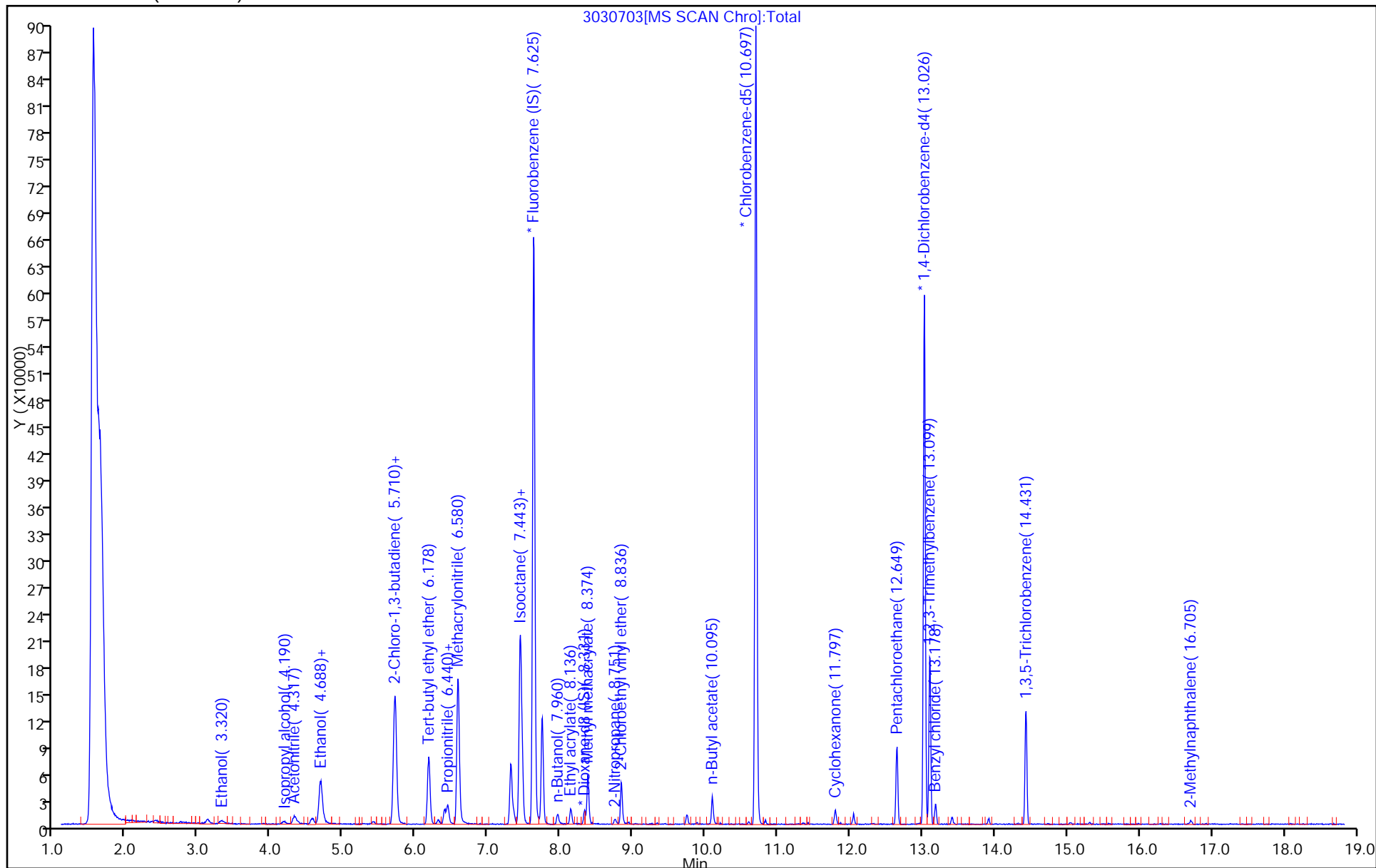
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



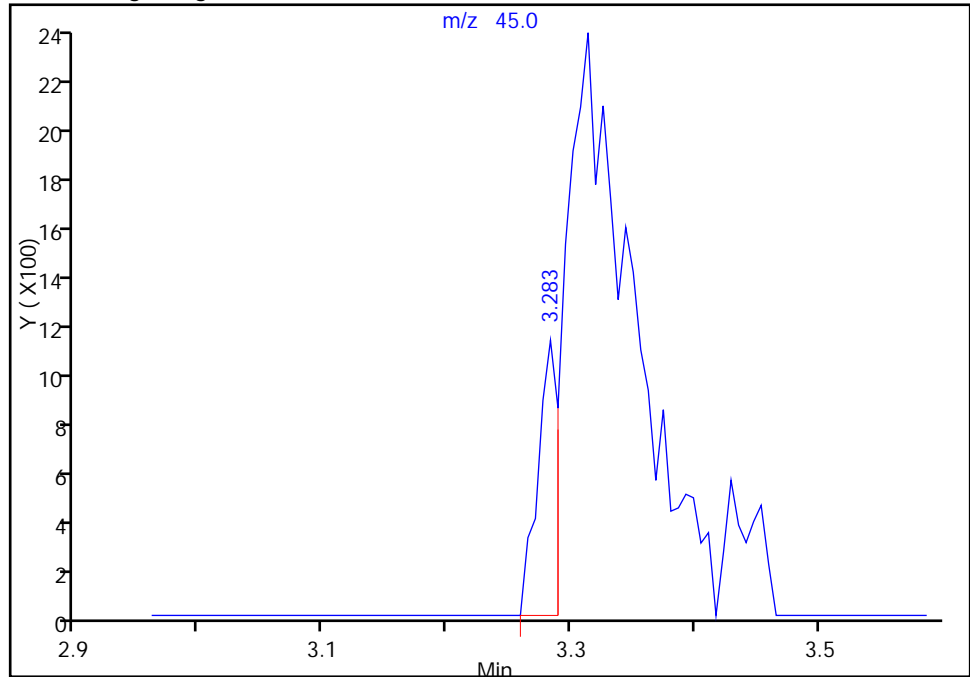
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP3\20140307-141.b\3030703.D		
Injection Date:	07-Mar-2014 06:20:30	Instrument ID:	CHHP3
Lims ID:	ic		
Client ID:			
Operator ID:	10099	ALS Bottle#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_S_CHHP3	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector:	MS SCAN
		Worklist Smp#:	3

## 18 Ethanol, CAS: 64-17-5

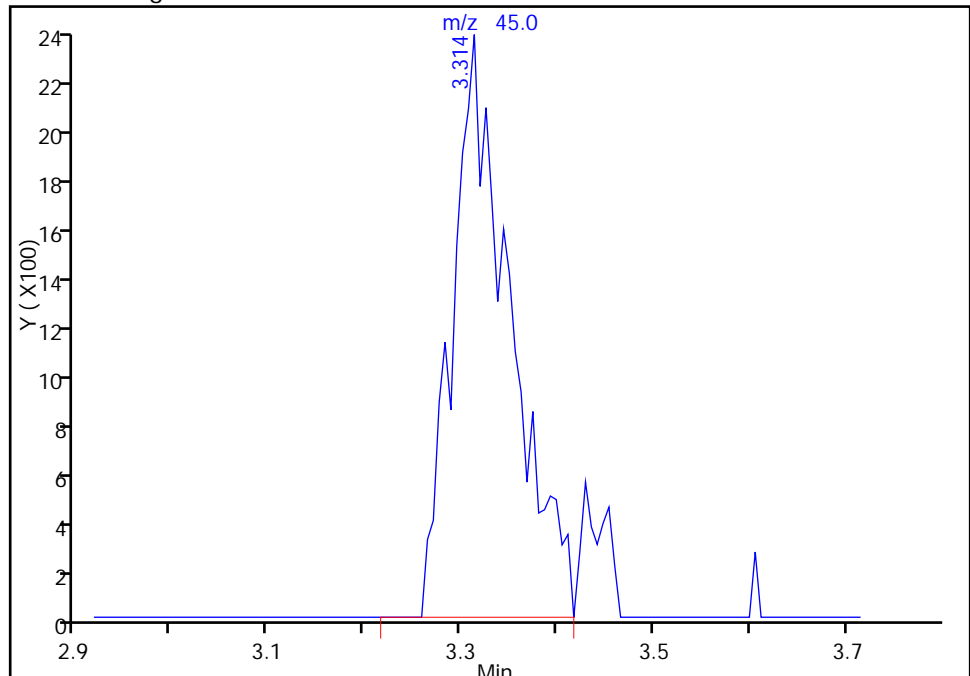
RT: 3.28  
Response: 1257  
Amount: 375.2655

## Processing Integration Results



RT: 3.31  
Response: 9576  
Amount: 2437.0927

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:31:22  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030704.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 07-Mar-2014 06:45:30 ALS Bottle#: 5 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD25  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:31 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:32:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.687	4.688	-0.001	96	94040	5000.0	
* 2 Fluorobenzene (IS)	96	7.625	7.625	0.0	99	724763	250.0	
* 3 Dioxane-d8 (IS)	96	8.336	8.331	0.005	76	12059	5000.0	
* 4 Chlorobenzene-d5	119	10.696	10.696	0.0	86	150578	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.025	13.026	-0.001	95	200484	250.0	
18 Ethanol	45	3.313	3.314	-0.001	90	23397	5740.0	M
26 Isopropyl alcohol	45	4.177	4.177	0.0	79	20362	1172.2	
27 Acetonitrile	40	4.316	4.311	0.005	99	25949	1170.6	
38 2-Chloro-1,3-butadiene	53	5.697	5.697	0.0	91	176499	120.5	
39 Isopropyl ether	45	5.721	5.716	0.005	96	284708	122.5	
40 Tert-butyl ethyl ether	59	6.177	6.178	-0.001	98	206511	122.4	
44 Propionitrile	54	6.396	6.391	0.005	98	57696	1220.2	
45 Ethyl acetate	43	6.439	6.439	0.0	98	76091	243.1	
46 Methacrylonitrile	41	6.585	6.585	0.0	92	280131	1220.1	
57 Isooctane	57	7.442	7.443	-0.001	95	547610	124.5	
58 Tert-amyl methyl ether	73	7.467	7.467	0.0	92	141188	121.6	
60 n-Butanol	56	7.953	7.960	-0.007	80	21806	2867.4	
62 Ethyl acrylate	55	8.142	8.136	0.006	96	59085	126.0	
66 Methyl methacrylate	69	8.379	8.379	0.0	93	57912	236.8	
69 2-Nitropropane	41	8.756	8.756	0.0	93	10104	240.4	
70 2-Chloroethyl vinyl ether	63	8.841	8.842	-0.001	89	66489	260.0	
80 n-Butyl acetate	43	10.094	10.094	0.0	97	61923	117.6	
92 Cyclohexanone	55	11.797	11.791	0.006	84	21214	2263.3	
102 Pentachloroethane	167	12.648	12.648	0.0	87	39634	119.3	
108 1,2,3-Trimethylbenzene	105	13.098	13.098	0.0	97	314392	129.5	
109 Benzyl chloride	91	13.177	13.178	-0.001	95	59806	106.8	
113 1,3,5-Trichlorobenzene	180	14.430	14.430	0.0	97	130354	127.7	
118 2-Methylnaphthalene	142	16.710	16.717	-0.007	49	13291	93.5	



QC Flag Legend

Review Flags

M - Manually Integrated

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030704.D

Injection Date: 07-Mar-2014 06:45:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

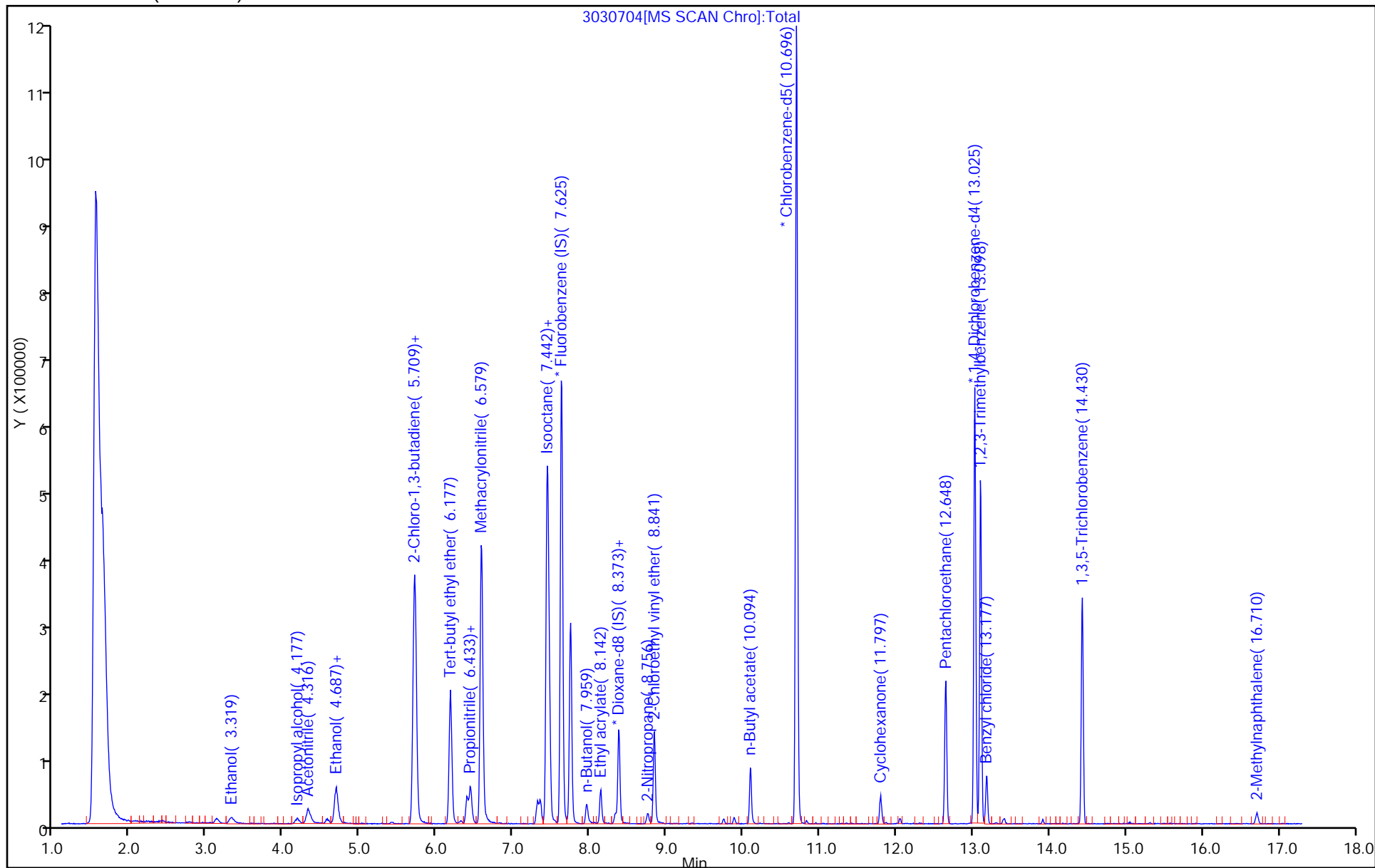
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030704.D

Injection Date: 07-Mar-2014 06:45:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

5

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

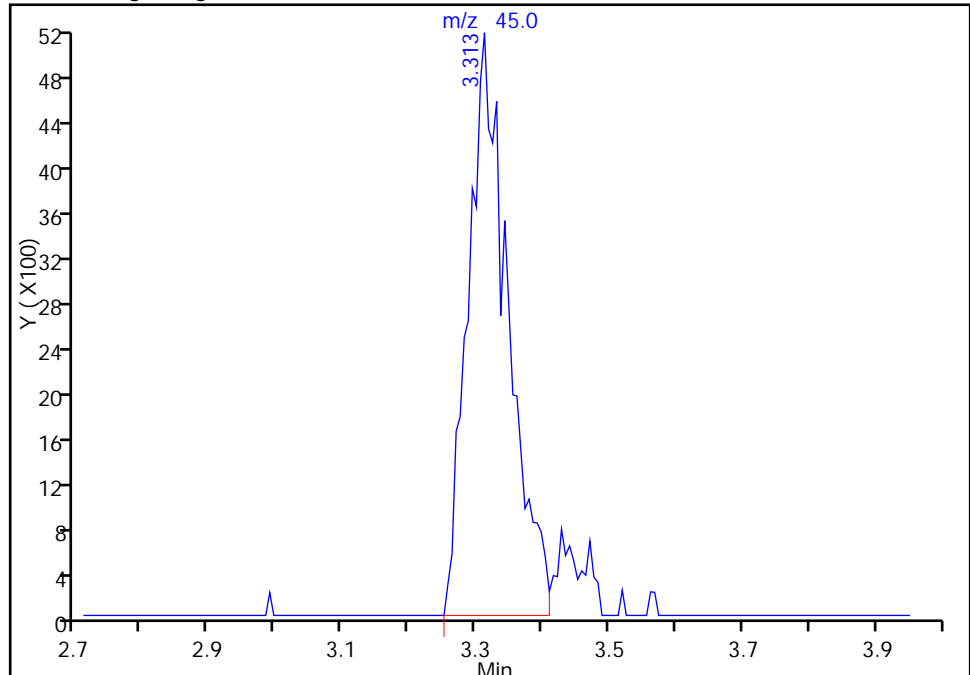
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 18 Ethanol, CAS: 64-17-5

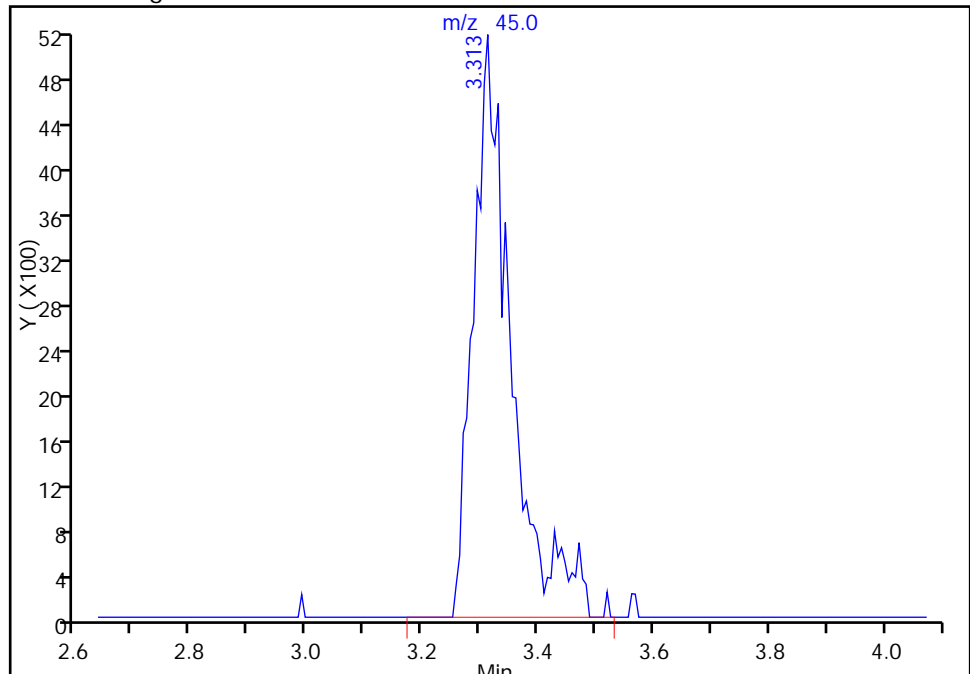
RT: 3.31  
Response: 21343  
Amount: 5378.8424

## Processing Integration Results



RT: 3.31  
Response: 23397  
Amount: 5740.0128

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:32:05

Audit Action: Manually Integrated

Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030705.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 07-Mar-2014 07:09:30 ALS Bottle#: 6 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:32 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:33:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.688	4.688	0.0	97	94370	5000.0	
* 2 Fluorobenzene (IS)	96	7.625	7.625	0.0	99	715618	250.0	
* 3 Dioxane-d8 (IS)	96	8.331	8.331	0.0	74	13106	5000.0	
* 4 Chlorobenzene-d5	119	10.696	10.696	0.0	85	150619	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.026	13.026	0.0	92	199325	250.0	
18 Ethanol	45	3.314	3.314	0.0	95	40575	9919.5	M
26 Isopropyl alcohol	45	4.177	4.177	0.0	94	37966	2213.5	M
27 Acetonitrile	40	4.311	4.311	0.0	100	41569	1990.2	
38 2-Chloro-1,3-butadiene	53	5.697	5.697	0.0	91	292723	202.4	
39 Isopropyl ether	45	5.716	5.716	0.0	96	463024	201.8	
40 Tert-butyl ethyl ether	59	6.178	6.178	0.0	99	336658	202.0	
44 Propionitrile	54	6.391	6.391	0.0	98	94392	2021.8	
45 Ethyl acetate	43	6.439	6.439	0.0	98	123285	398.9	
46 Methacrylonitrile	41	6.585	6.585	0.0	92	464644	2049.7	
57 Isooctane	57	7.443	7.443	0.0	96	898762	206.9	
58 Tert-amyl methyl ether	73	7.467	7.467	0.0	91	232708	202.9	
60 n-Butanol	56	7.960	7.960	0.0	84	41517	5529.1	
62 Ethyl acrylate	55	8.136	8.136	0.0	97	95543	203.7	
66 Methyl methacrylate	69	8.379	8.379	0.0	94	98443	407.7	
69 2-Nitropropane	41	8.756	8.756	0.0	93	16371	389.4	
70 2-Chloroethyl vinyl ether	63	8.842	8.842	0.0	90	99312	393.3	
80 n-Butyl acetate	43	10.094	10.094	0.0	97	110589	210.0	
92 Cyclohexanone	55	11.791	11.791	0.0	88	43086	4595.5	
102 Pentachloroethane	167	12.648	12.648	0.0	88	71383	216.2	
108 1,2,3-Trimethylbenzene	105	13.098	13.098	0.0	98	509070	210.9	
109 Benzyl chloride	91	13.178	13.178	0.0	97	112305	183.7	
113 1,3,5-Trichlorobenzene	180	14.430	14.430	0.0	97	211612	208.5	
118 2-Methylnaphthalene	142	16.717	16.717	0.0	85	40132	197.7	

QC Flag Legend

Review Flags

M - Manually Integrated

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030705.D

Injection Date: 07-Mar-2014 07:09:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

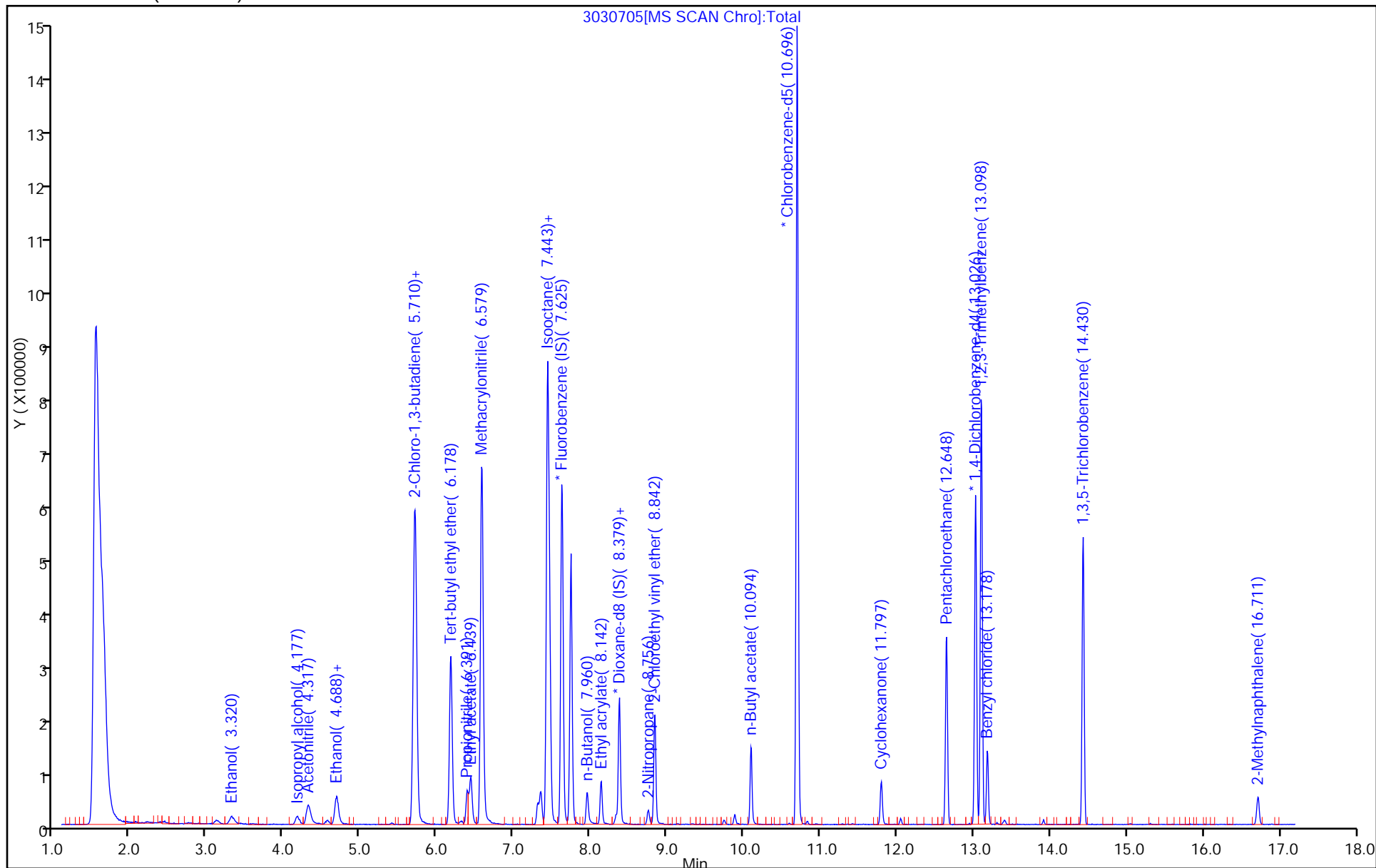
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030705.D

Injection Date: 07-Mar-2014 07:09:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

6

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

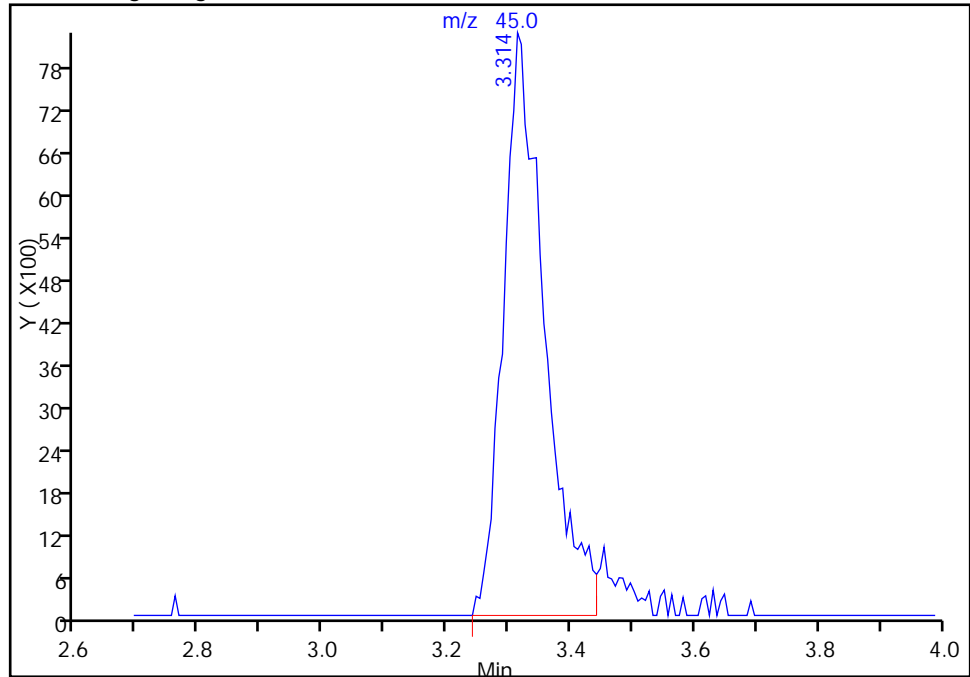
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 18 Ethanol, CAS: 64-17-5

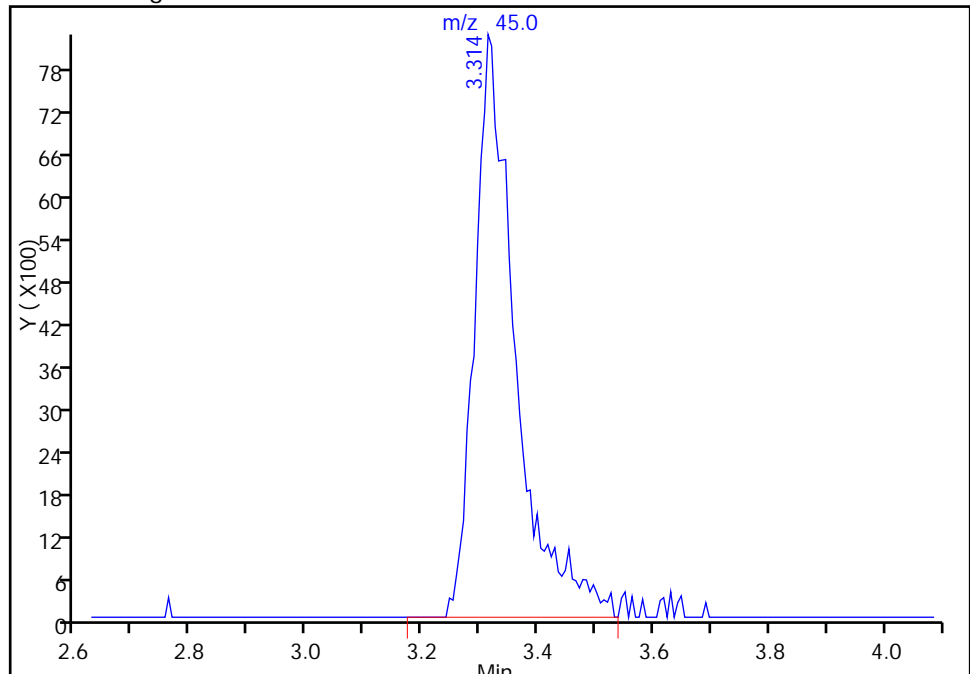
RT: 3.31  
Response: 38265  
Amount: 9497.4137

## Processing Integration Results



RT: 3.31  
Response: 40575  
Amount: 9919.5023

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:33:03

Audit Action: Manually Integrated

Audit Reason: Peak Tail

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030705.D

Injection Date: 07-Mar-2014 07:09:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

6

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

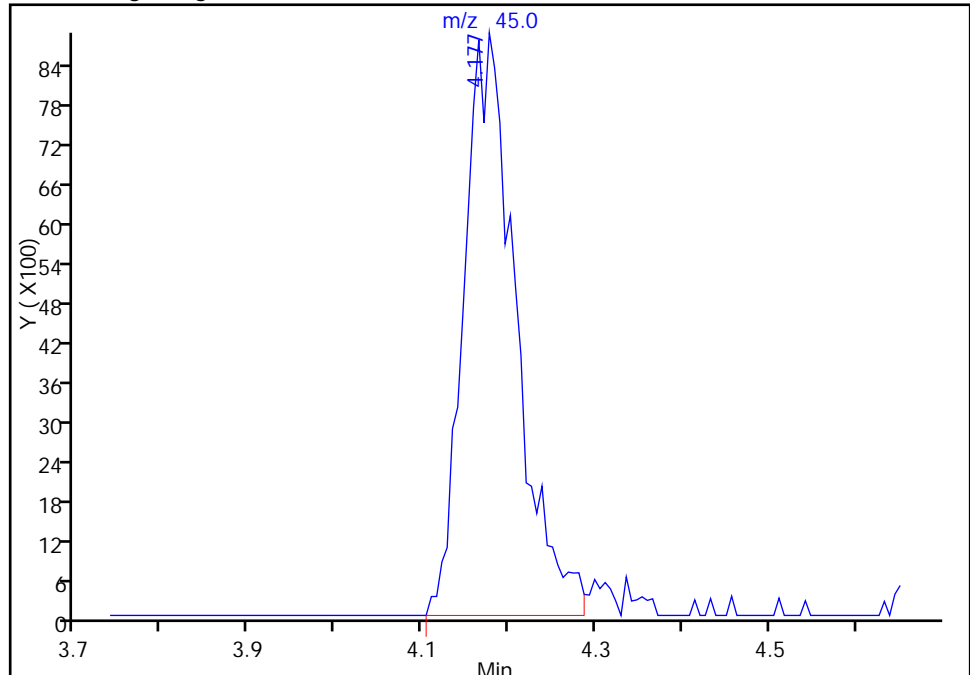
Column: DB-624 (0.18 mm)

Detector: MS SCAN

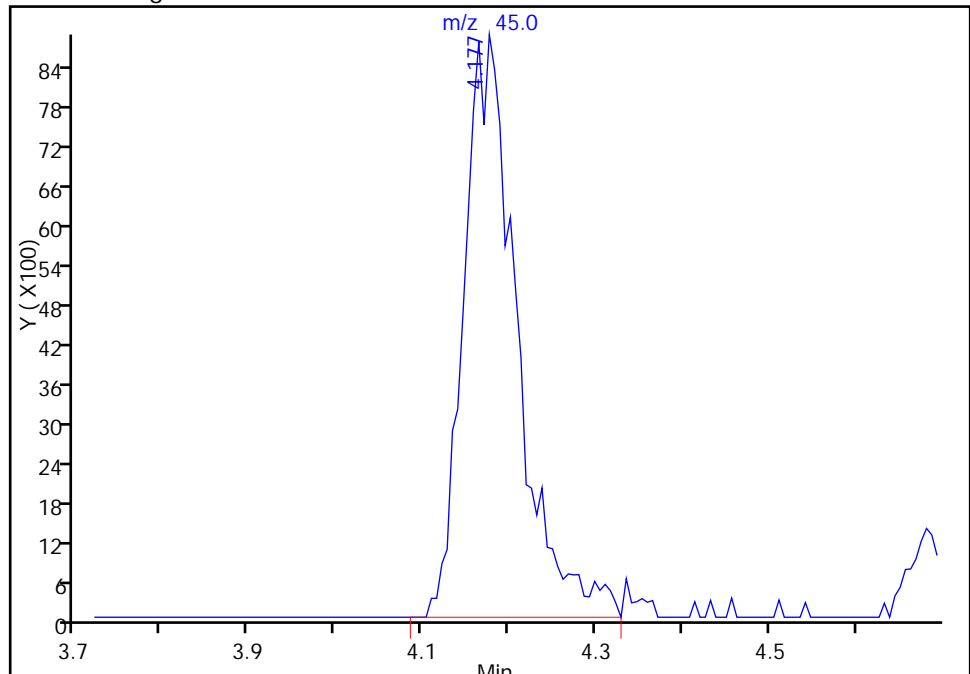
## 26 Isopropyl alcohol, CAS: 67-63-0

RT: 4.18  
Response: 37095  
Amount: 2170.5769

## Processing Integration Results

RT: 4.18  
Response: 37966  
Amount: 2213.4846

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:33:03

Audit Action: Manually Integrated

Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030706.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 07-Mar-2014 07:32:30 ALS Bottle#: 7 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:34 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:33:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.691	4.688	0.003	97	93949	5000.0	
* 2 Fluorobenzene (IS)	96	7.628	7.625	0.003	99	697872	250.0	
* 3 Dioxane-d8 (IS)	96	8.333	8.331	0.002	73	12485	5000.0	
* 4 Chlorobenzene-d5	119	10.699	10.696	0.003	86	146644	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.022	13.026	-0.004	91	198180	250.0	
18 Ethanol	45	3.328	3.314	0.014	92	47619	11694	M
26 Isopropyl alcohol	45	4.180	4.177	0.003	96	43455	2597.9	
27 Acetonitrile	40	4.314	4.311	0.003	100	53849	2680.3	
38 2-Chloro-1,3-butadiene	53	5.700	5.697	0.003	91	357818	253.7	
39 Isopropyl ether	45	5.718	5.716	0.002	96	557600	249.3	
40 Tert-butyl ethyl ether	59	6.175	6.178	-0.003	99	406939	250.4	
44 Propionitrile	54	6.393	6.391	0.002	99	111429	2447.4	
45 Ethyl acetate	43	6.442	6.439	0.003	98	151666	503.2	
46 Methacrylonitrile	41	6.582	6.585	-0.003	92	569860	2577.7	
57 Isooctane	57	7.439	7.443	-0.004	96	1087978	256.8	
58 Tert-amyl methyl ether	73	7.464	7.467	-0.003	91	281251	251.5	
60 n-Butanol	56	7.956	7.960	-0.004	85	48486	6621.4	
62 Ethyl acrylate	55	8.139	8.136	0.003	98	116091	254.2	
66 Methyl methacrylate	69	8.376	8.379	-0.003	92	122148	518.8	
69 2-Nitropropane	41	8.753	8.756	-0.003	94	19344	472.6	
70 2-Chloroethyl vinyl ether	63	8.838	8.842	-0.004	92	127256	516.8	
80 n-Butyl acetate	43	10.097	10.094	0.003	99	131370	256.2	
92 Cyclohexanone	55	11.794	11.791	0.003	89	47785	5234.8	
102 Pentachloroethane	167	12.651	12.648	0.003	89	84086	256.1	
108 1,2,3-Trimethylbenzene	105	13.101	13.098	0.003	97	614512	256.0	
109 Benzyl chloride	91	13.180	13.178	0.002	98	134636	217.3	
113 1,3,5-Trichlorobenzene	180	14.433	14.430	0.003	97	254130	251.9	
118 2-Methylnaphthalene	142	16.714	16.717	-0.003	90	53408	248.0	

QC Flag Legend

Review Flags

M - Manually Integrated

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030706.D

Injection Date: 07-Mar-2014 07:32:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

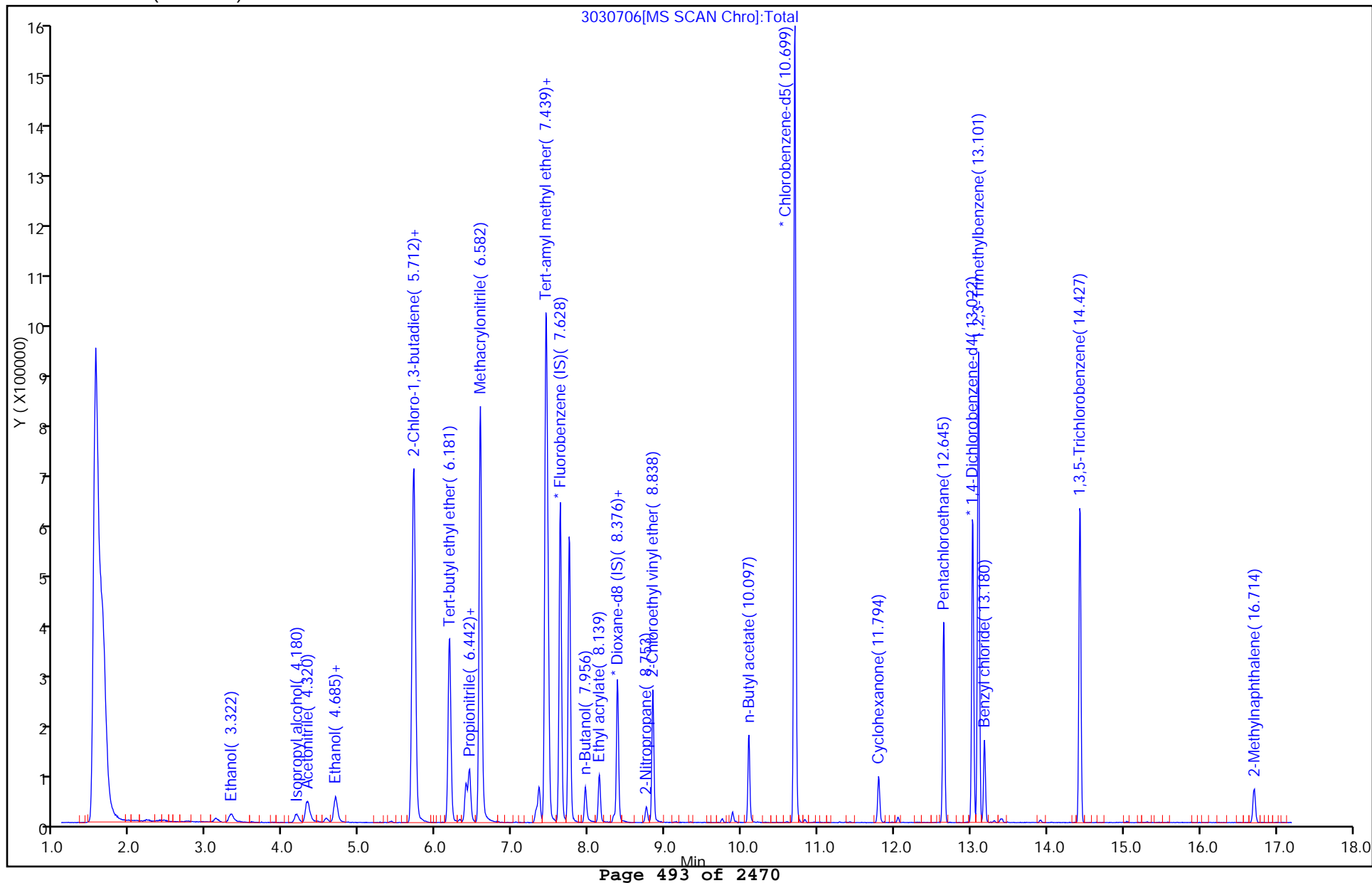
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030706.D

Injection Date: 07-Mar-2014 07:32:30

Instrument ID: CHHP3

Lims ID: ic

Client ID:

Operator ID: 10099

ALS Bottle#:

7

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

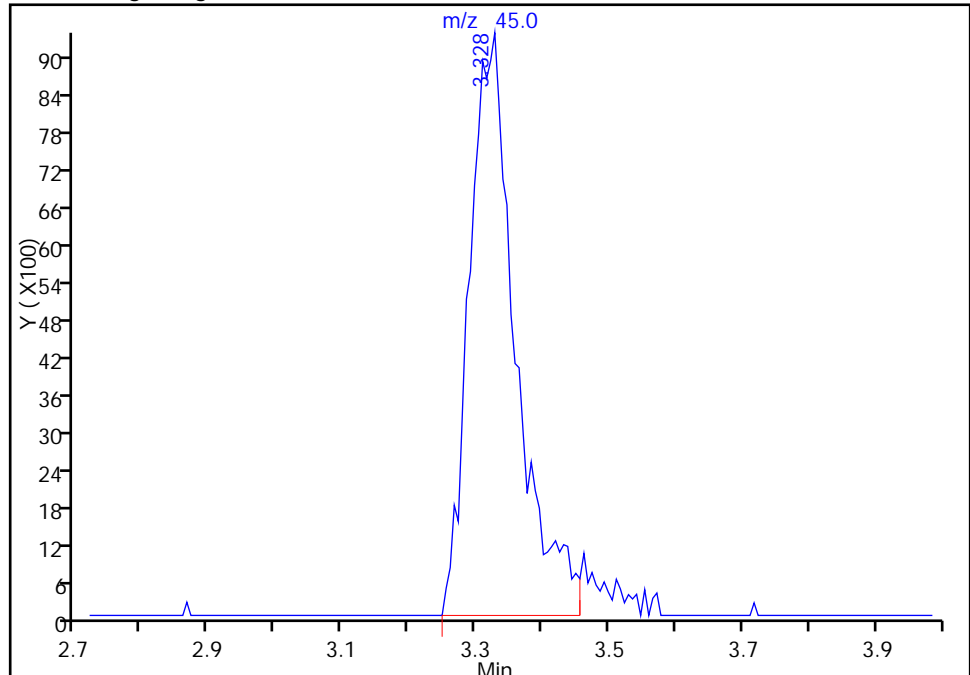
Detector

MS SCAN

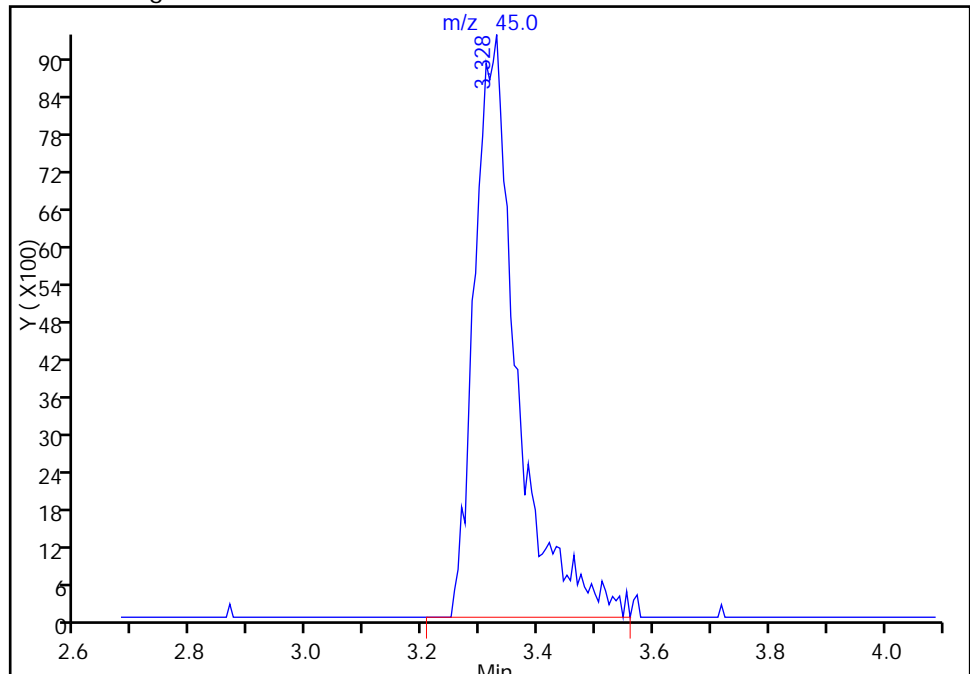
## 18 Ethanol, CAS: 64-17-5

RT: 3.33  
Response: 45142  
Amount: 11163

## Processing Integration Results

RT: 3.33  
Response: 47619  
Amount: 11694

## Manual Integration Results



Reviewer: gordonk, 07-Mar-2014 08:33:42

Audit Action: Manually Integrated

Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030707.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 07-Mar-2014 07:57:30 ALS Bottle#: 8 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD125  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:35 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 08:34:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.687	4.688	-0.001	96	90142	5000.0	
* 2 Fluorobenzene (IS)	96	7.630	7.625	0.005	99	714549	250.0	
* 3 Dioxane-d8 (IS)	96	8.329	8.331	-0.002	83	12656	5000.0	
* 4 Chlorobenzene-d5	119	10.701	10.696	0.005	61	153632	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.024	13.026	-0.002	92	203703	250.0	
18 Ethanol	45	3.330	3.314	0.016	97	111289	28483	
26 Isopropyl alcohol	45	4.176	4.177	-0.001	97	106744	6232.7	
27 Acetonitrile	40	4.316	4.311	0.005	100	127488	6184.5	
38 2-Chloro-1,3-butadiene	53	5.696	5.697	-0.001	91	956461	662.3	
39 Isopropyl ether	45	5.720	5.716	0.004	96	1461640	638.1	
40 Tert-butyl ethyl ether	59	6.176	6.178	-0.002	98	1068718	642.2	
44 Propionitrile	54	6.395	6.391	0.004	98	289604	6212.3	
45 Ethyl acetate	43	6.438	6.439	-0.001	99	400105	1296.4	
46 Methacrylonitrile	41	6.584	6.585	-0.001	92	1446272	6389.4	
57 Isooctane	57	7.441	7.443	-0.002	96	2793295	644.0	
58 Tert-amyl methyl ether	73	7.466	7.467	-0.001	91	739581	645.9	
60 n-Butanol	56	7.952	7.960	-0.008	87	129255	17240	
62 Ethyl acrylate	55	8.135	8.136	-0.001	98	317465	663.6	
66 Methyl methacrylate	69	8.372	8.379	-0.007	94	321468	1333.4	
69 2-Nitropropane	41	8.749	8.756	-0.007	97	60208	1404.1	
70 2-Chloroethyl vinyl ether	63	8.840	8.842	-0.002	91	334860	1328.2	
80 n-Butyl acetate	43	10.093	10.094	-0.001	99	351772	654.7	
92 Cyclohexanone	55	11.796	11.791	0.005	91	125969	13172	
102 Pentachloroethane	167	12.647	12.648	-0.001	92	221524	656.4	
108 1,2,3-Trimethylbenzene	105	13.103	13.098	0.005	97	1555613	630.5	
109 Benzyl chloride	91	13.182	13.178	0.004	99	418024	615.6	
113 1,3,5-Trichlorobenzene	180	14.435	14.430	0.005	98	669669	645.8	
118 2-Methylnaphthalene	142	16.709	16.717	-0.008	92	175163	633.7	

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030707.D

Injection Date: 07-Mar-2014 07:57:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

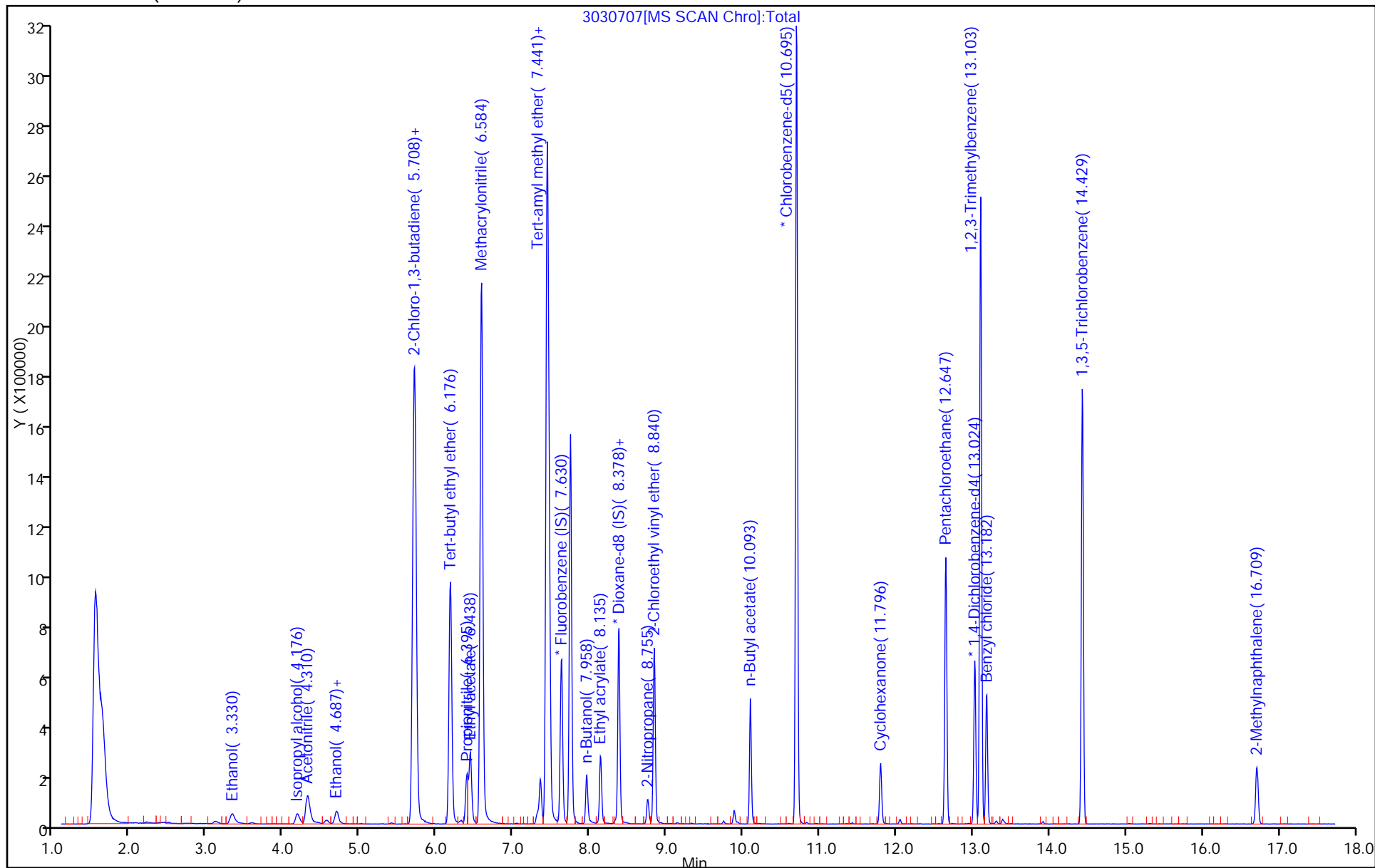
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Lims ID: ic  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 07-Mar-2014 08:21:30 ALS Bottle#: 9 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD250  
 Misc. Info.: 3030714d.b,T8260bsoil.m,list2.sub =3030714D.B,T8260BSOIL.M,LIST2.SUB  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub3  
 Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Mar-2014 04:50:38 Calib Date: 07-Mar-2014 08:21:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK005

First Level Reviewer: gordonk

Date: 07-Mar-2014 09:01:52

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	On-Col Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.708	4.688	0.020	96	98119	5000.0	
* 2 Fluorobenzene (IS)	96	7.627	7.625	0.002	99	755794	250.0	
* 3 Dioxane-d8 (IS)	96	8.332	8.331	0.001	53	14186	5000.0	
* 4 Chlorobenzene-d5	119	10.698	10.696	0.002	50	161511	250.0	
* 5 1,4-Dichlorobenzene-d4	152	13.027	13.026	0.001	95	224424	250.0	
18 Ethanol	45	3.352	3.314	0.038	99	241079	56685	
26 Isopropyl alcohol	45	4.197	4.177	0.020	98	244416	13492	
27 Acetonitrile	40	4.325	4.311	0.014	100	287028	12510	
38 2-Chloro-1,3-butadiene	53	5.693	5.697	-0.004	92	2003518	1311.7	
39 Isopropyl ether	45	5.717	5.716	0.001	93	2951994	1218.5	
40 Tert-butyl ethyl ether	59	6.180	6.178	0.002	97	2243796	1274.8	
44 Propionitrile	54	6.392	6.391	0.001	99	644155	13064	
45 Ethyl acetate	43	6.441	6.439	0.002	99	884889	2710.7	
46 Methacrylonitrile	41	6.587	6.585	0.002	90	2863713	11961	
57 Isooctane	57	7.444	7.443	0.001	94	5123119	1116.7	
58 Tert-amyl methyl ether	73	7.469	7.467	0.002	93	1588322	1311.5	
60 n-Butanol	56	7.955	7.960	-0.005	86	310688	39177	
62 Ethyl acrylate	55	8.138	8.136	0.002	99	731316	1454.1	
66 Methyl methacrylate	69	8.375	8.379	-0.004	93	734000	2878.4	
69 2-Nitropropane	41	8.752	8.756	-0.004	94	150018	3327.9	
70 2-Chloroethyl vinyl ether	63	8.837	8.842	-0.005	91	751981	2819.9	
80 n-Butyl acetate	43	10.096	10.094	0.002	98	816891	1446.3	
92 Cyclohexanone	55	11.793	11.791	0.002	92	295468	29389	
102 Pentachloroethane	167	12.650	12.648	0.002	94	491739	1322.6	
108 1,2,3-Trimethylbenzene	105	13.100	13.098	0.002	95	3013805	1108.8	
109 Benzyl chloride	91	13.179	13.178	0.001	99	1004007	1318.2	
113 1,3,5-Trichlorobenzene	180	14.432	14.430	0.002	97	1394623	1220.7	
118 2-Methylnaphthalene	142	16.712	16.717	-0.005	92	459295	1248.6	

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D

Injection Date: 07-Mar-2014 08:21:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ic

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

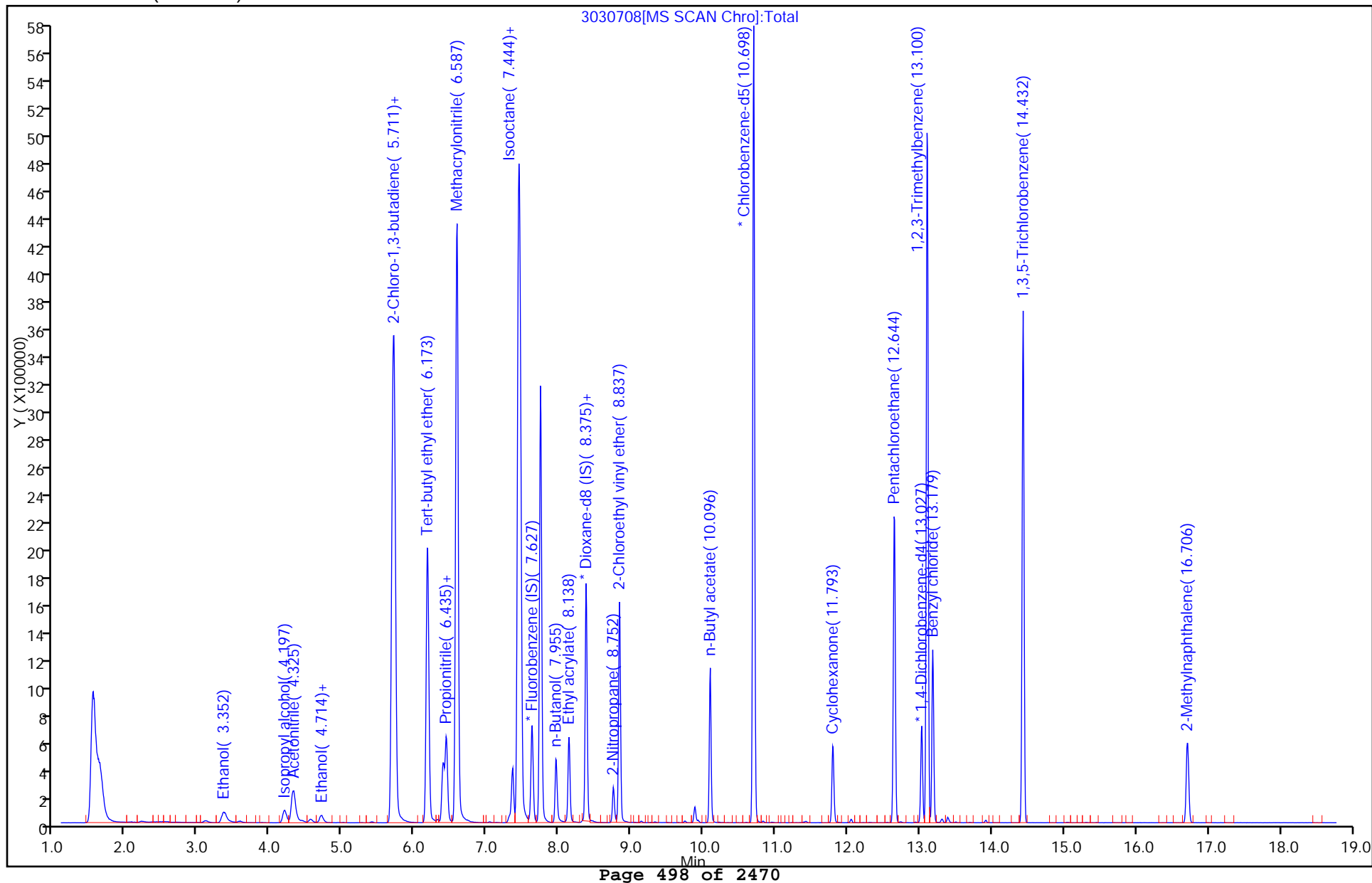
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-118826/3	30922K03.D
Level 2	IC 180-118826/4	30922K04.D
Level 3	IC 180-118826/5	30922K05.D
Level 4	ICIS 180-118826/6	30922K06.D
Level 5	IC 180-118826/7	30922K07.D
Level 6	IC 180-118826/8	30922K08.D
Level 7	IC 180-118826/9	30922K09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1936 0.2601	0.2254 0.2591	0.2373	0.2509	0.2587	Ave		0.2407			0.1000	10.0		20.0			
Chloromethane	0.3979 0.4606	0.4379 0.4586	0.4310	0.4800	0.5091	Ave		0.4536			0.1000	7.9		20.0			
Vinyl chloride	0.3932 0.4611	0.4491 0.4524	0.4259	0.4788	0.4936	Ave		0.4506			0.1000	7.4		20.0			
1,3-Butadiene	0.3668 0.4174	0.3881 0.4061	0.3724	0.4357	0.4580	Ave		0.4064			0.0100	8.2		20.0			
Bromomethane	0.1964 0.1573	0.1806 0.1909	0.1839	0.1738	0.1727	Ave		0.1794			0.0500	7.2		20.0			
Chloroethane	0.2151 0.2496	0.2327 0.2218	0.2105	0.2318	0.2160	Ave		0.2253			0.0500	6.0		20.0			
Dichlorofluoromethane	0.4781 0.4746	0.4747 0.4200	0.4554	0.4763	0.4907	Ave		0.4671			0.0100	5.0		20.0			
Trichlorofluoromethane	0.2744 0.3182	0.2669 0.3013	0.2892	0.2939	0.3104	Ave		0.2935			0.1000	6.3		20.0			
Ethyl ether	0.2895 0.2680	0.2671 0.2651	0.2593	0.3022	0.2780	Ave		0.2756			0.0100	5.6		20.0			
Acrolein	0.0374 0.0338	0.0420 0.0300	0.0323	0.0351	0.0370	Ave		0.0354			0.0100	11.0		20.0			
1,1-Dichloroethene	0.2356 0.2424	0.2387 0.2407	0.2283	0.2531	0.2476	Ave		0.2409			0.1000	3.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2214 0.2175	0.2096 0.2188	0.2105	0.2203	0.2277	Ave		0.2180			0.1000	2.9		20.0			
Acetone	0.2400 0.1159	0.1847 0.0888	0.1180	0.1292	0.1238	Qua	1.0589	0.1345	-0.000037		0.0500				0.9980		0.9900
Iodomethane	0.3355 0.3178	0.3144 0.3222	0.3295	0.3319	0.3400	Ave		0.3273			0.0100	2.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.5726 0.6799	0.5475 0.6841	0.5937	0.6948	0.6868	Ave		0.6370			0.1000	9.9		20.0			
Allyl chloride	0.1580 0.1882	0.1534 0.1984	0.1629	0.1833	0.1794	Ave		0.1748			0.0100	9.7		20.0			
Methyl acetate	0.2497 0.2738	0.3080 0.2539	0.2611	0.2824	0.3045	Ave		0.2762			0.1000	8.5		20.0			
Methylene Chloride	0.5151 0.2643	0.3649 0.2616	0.3057	0.2861	0.2872	Lin1	6.1762	0.2564			0.1000				1.0000		0.9900
tert-Butyl alcohol	1.2250 1.2237	1.1930 1.7373	1.2353	1.2968	1.2378	Ave		1.3070			0.0100	15.0		20.0			
Acrylonitrile	0.1068 0.1277	0.1420 0.1194	0.1223	0.1284	0.1445	Ave		0.1273			0.0100	10.0		20.0			
trans-1,2-Dichloroethene	0.2503 0.2555	0.2604 0.2536	0.2588	0.2663	0.2683	Ave		0.2590			0.1000	2.5		20.0			
Methyl tert-butyl ether	0.6195 0.6570	0.6528 0.6645	0.6197	0.6602	0.7036	Ave		0.6539			0.1000	4.4		20.0			
Hexane	0.6963 0.5403	0.5601 0.5156	0.5257	0.5596	0.5497	Ave		0.5639			0.0100	11.0		20.0			
1,1-Dichloroethane	0.4747 0.5252	0.4901 0.5188	0.5058	0.5464	0.5599	Ave		0.5173			0.2000	5.8		20.0			
Vinyl acetate	0.1224 0.1618	0.1276 0.1651	0.1364	0.1491	0.1649	Ave		0.1467			0.0100	12.0		20.0			
2,2-Dichloropropane	0.1748 0.2008	0.1829 0.1950	0.1942	0.2115	0.2070	Ave		0.1952			0.0100	6.6		20.0			
cis-1,2-Dichloroethene	0.2783 0.2927	0.2846 0.2891	0.2792	0.2980	0.3020	Ave		0.2891			0.1000	3.1		20.0			
2-Butanone (MEK)	0.1861 0.1839	0.2162 0.1743	0.1857	0.2084	0.2169	Ave		0.1959			0.0500	8.9		20.0			
Chlorobromomethane	0.1042 0.1175	0.1158 0.1213	0.1200	0.1217	0.1221	Ave		0.1175			0.0100	5.4		20.0			
Tetrahydrofuran	0.1009 0.1140	0.1215 0.1108	0.1112	0.1171	0.1230	Ave		0.1140			0.0100	6.6		20.0			
Chloroform	0.3859 0.4141	0.3920 0.3937	0.4229	0.4163	0.4206	Ave		0.4065			0.2000	3.8		20.0			
1,1,1-Trichloroethane	0.2540 0.2907	0.2658 0.2839	0.2974	0.2991	0.2953	Ave		0.2838			0.1000	6.1		20.0			
Cyclohexane	0.5627 0.6231	0.5783 0.6056	0.6387	0.6394	0.6466	Ave		0.6135			0.1000	5.3		20.0			
1,1-Dichloropropene	0.3215 0.3316	0.3182 0.3288	0.3487	0.3411	0.3389	Ave		0.3327			0.0100	3.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.1839 0.2430	0.2133 0.2422	0.2318	0.2381	0.2403	Ave		0.2275			0.1000	9.6		20.0			
Isobutyl alcohol	0.0068 0.0115	0.0117 0.0102	0.0103	0.0111	0.0123	Ave		0.0106			0.0100	17.0		20.0			
Benzene	1.0462 1.0410	1.0860 0.9775	1.1291	1.1199	1.1236	Ave		1.0748			0.5000	5.2		20.0			
1,2-Dichloroethane	0.2858 0.3109	0.2966 0.3050	0.3191	0.3180	0.3223	Ave		0.3083			0.1000	4.3		20.0			
n-Heptane	0.4504 0.5654	0.4425 0.5472	0.5307	0.5464	0.5497	Ave		0.5189			0.0100	9.7		20.0			
Trichloroethene	0.2455 0.2552	0.2658 0.2532	0.2606	0.2588	0.2613	Ave		0.2572			0.2000	2.6		20.0			
Methylcyclohexane	0.4559 0.5177	0.4647 0.4954	0.5210	0.5069	0.5143	Ave		0.4965			0.1000	5.3		20.0			
1,2-Dichloropropane	0.2871 0.3209	0.2870 0.3117	0.3258	0.3173	0.3265	Ave		0.3109			0.1000	5.5		20.0			
Dibromomethane	0.1098 0.1346	0.1411 0.1354	0.1389	0.1345	0.1392	Ave		0.1334			0.0100	8.0		20.0			
1,4-Dioxane	0.0018 0.0027	0.0027 0.0023	0.0027	0.0024	0.0027	Ave		0.0025		*	0.0100	14.0		20.0			
Dichlorobromomethane	0.2286 0.3073	0.2404 0.3115	0.3027	0.2893	0.3046	Ave		0.2835			0.2000	12.0		20.0			
cis-1,3-Dichloropropene	0.3248 0.4301	0.3511 0.4206	0.4136	0.4168	0.4228	Ave		0.3971			0.2000	10.0		20.0			
4-Methyl-2-pentanone (MIBK)	1.0724 1.4437	1.3612 1.3406	1.3701	1.4613	1.4514	Ave		1.3573			0.1000	9.9		20.0			
Toluene	4.8018 4.7332	4.8401 4.1446	5.0440	5.1198	4.7741	Ave		4.7797			0.4000	6.6		20.0			
trans-1,3-Dichloropropene	1.1686 1.5105	1.2636 1.4667	1.4174	1.4432	1.4458	Ave		1.3880			0.1000	8.9		20.0			
Ethyl methacrylate	1.1629 1.5127	1.3296 1.4624	1.4732	1.5079	1.4525	Ave		1.4144			0.0100	8.9		20.0			
1,1,2-Trichloroethane	0.9226 0.9591	0.9349 0.9387	0.9679	1.0184	0.9356	Ave		0.9539			0.1000	3.4		20.0			
Tetrachloroethene	0.8888 0.8735	0.8852 0.8424	0.9008	0.8836	0.8386	Ave		0.8733			0.2000	2.7		20.0			
1,3-Dichloropropane	1.5615 1.7633	1.7265 1.6750	1.7762	1.7760	1.7282	Ave		1.7152			0.0100	4.5		20.0			
2-Hexanone	1.0398 1.1770	1.3066 1.0159	1.1700	1.3177	1.2570	Ave		1.1834			0.1000	10.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.5853 0.8901	0.6562 0.8800	0.7960	0.8112	0.8030	Ave		0.7745			0.1000	15.0		20.0			
1,2-Dibromoethane	0.8084 0.9508	0.8815 0.8958	0.9248	0.9370	0.9110	Ave		0.9013			0.1000	5.2		20.0			
Chlorobenzene	2.7730 3.0078	3.1077 2.8046	3.0903	3.1562	2.9562	Ave		2.9851			0.5000	5.0		20.0			
1,1,1,2-Tetrachloroethane	0.7610 0.9429	0.7667 0.9045	0.9101	0.9274	0.8832	Ave		0.8708			0.0100	8.7		20.0			
Ethylbenzene	1.6858 1.7421	1.6595 1.6326	1.7292	1.7713	1.6923	Ave		1.7018			0.1000	2.9		20.0			
m-Xylene & p-Xylene	1.9863 2.1060	2.0347 1.9823	2.1748	2.1207	2.0367	Ave		2.0631			0.1000	3.5		20.0			
o-Xylene	1.8482 2.1116	1.9385 1.9995	2.1391	2.1247	2.0507	Ave		2.0303			0.3000	5.3		20.0			
Styrene	3.2469 3.5019	3.4331 3.2151	3.5934	3.6003	3.4455	Ave		3.4337			0.3000	4.5		20.0			
Bromoform	0.3332 0.5643	0.4184 0.5559	0.4455	0.4953	0.4931	Ave		0.4723			0.1000	17.0		20.0			
Isopropylbenzene	4.8619 4.9844	5.1570 4.2065	5.5106	5.3815	5.1894	Ave		5.0416			0.1000	8.5		20.0			
1,1,2,2-Tetrachloroethane	1.0442 1.2963	1.1739 1.1914	1.2941	1.3056	1.3050	Ave		1.2301			0.3000	8.1		20.0			
Bromobenzene	0.7731 0.8299	0.7878 0.8622	0.8734	0.8405	0.8031	Ave		0.8243			0.0100	4.6		20.0			
1,2,3-Trichloropropane	0.2389 0.2586	0.2756 0.2699	0.2627	0.2632	0.2597	Ave		0.2612			0.0100	4.4		20.0			
trans-1,4-Dichloro-2-butene	0.2621 0.3303	0.2780 0.3466	0.3169	0.3142	0.3288	Ave		0.3110			0.0100	9.7		20.0			
N-Propylbenzene	0.9722 1.0433	0.9342 1.0608	1.0824	1.0515	1.0268	Ave		1.0245			0.0100	5.1		20.0			
2-Chlorotoluene	0.8062 0.8380	0.7624 0.8421	0.8383	0.8528	0.8142	Ave		0.8220			0.0100	3.8		20.0			
1,3,5-Trimethylbenzene	2.8175 2.8498	2.6813 2.6674	3.0697	3.0375	2.9500	Ave		2.8676			0.0100	5.6		20.0			
4-Chlorotoluene	0.8990 0.8702	0.8637 0.8985	0.9081	0.8757	0.8532	Ave		0.8812			0.0100	2.4		20.0			
tert-Butylbenzene	2.3655 2.5372	2.3740 2.3069	2.6555	2.6647	2.5867	Ave		2.4986			0.0100	5.9		20.0			
1,2,4-Trimethylbenzene	2.8327 2.9361	2.8896 2.6575	3.0758	3.0713	3.0172	Ave		2.9257			0.0100	5.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5758 3.7358	3.5366 3.2874	4.0353	4.0660	3.8026	Ave		3.7199			0.0100	7.5		20.0			
1,3-Dichlorobenzene	1.4906 1.6131	1.5951 1.5659	1.6287	1.6252	1.6213	Ave		1.5914			0.6000	3.1		20.0			
4-Isopropyltoluene	2.8562 2.9867	2.9390 2.6676	3.2642	3.2266	3.0273	Ave		2.9954			0.0100	6.9		20.0			
1,4-Dichlorobenzene	1.5178 1.5413	1.5517 1.5065	1.6043	1.6384	1.5852	Ave		1.5636			0.5000	3.1		20.0			
n-Butylbenzene	2.6140 3.0237	2.7399 2.7438	3.1251	3.2103	3.0853	Ave		2.9346			0.0100	7.9		20.0			
1,2-Dichlorobenzene	1.3548 1.4274	1.4234 1.4197	1.5099	1.5148	1.4658	Ave		1.4451			0.4000	3.9		20.0			
1,2-Dibromo-3-Chloropropane	0.1058 0.1486	0.1133 0.1599	0.1254	0.1303	0.1466	Ave		0.1329			0.0500	15.0		20.0			
1,2,4-Trichlorobenzene	0.6726 0.7555	0.7408 1.0126	0.8026	0.7625	0.8452	Ave		0.7988			0.2000	14.0		20.0			
Hexachlorobutadiene	0.3095 0.3372	0.3124 0.5067	0.3715	0.3498	0.3621	Ave		0.3642			0.0100	18.0		20.0			
Naphthalene	1.6895 1.9174	1.9716 2.2489	1.9405	1.8715	2.2127	Ave		1.9789			0.0100	9.9		20.0			
1,2,3-Trichlorobenzene	0.5701 0.6437	0.6083 0.9077	0.6337	0.6309	0.6754	Ave		0.6671			0.0100	17.0		20.0			
Dibromofluoromethane (Surr)	0.2096 0.2069	0.2076 0.2091	0.2079	0.2170	0.2142	Ave		0.2103				1.8		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2211 0.2454	0.2512 0.2423	0.2514	0.2534	0.2556	Ave		0.2458				4.8		20.0			
Toluene-d8 (Surr)	4.1086 4.0313	4.5503 3.6871	4.1886	4.4189	4.1474	Ave		4.1617				6.7		20.0			
4-Bromofluorobenzene (Surr)	1.4341 1.4420	1.5127 1.3652	1.4833	1.4967	1.4925	Ave		1.4609				3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-118826/3	30922K03.D
Level 2	IC 180-118826/4	30922K04.D
Level 3	IC 180-118826/5	30922K05.D
Level 4	ICIS 180-118826/6	30922K06.D
Level 5	IC 180-118826/7	30922K07.D
Level 6	IC 180-118826/8	30922K08.D
Level 7	IC 180-118826/9	30922K09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	12017 452630	23327 907471	76441	135608	170358	25.0 625	50.0 1250	125	200	250
Chloromethane	FB	Ave	24702 801594	45327 1606126	138871	259377	335246	25.0 625	50.0 1250	125	200	250
Vinyl chloride	FB	Ave	24409 802593	46489 1584230	137222	258752	325005	25.0 625	50.0 1250	125	200	250
1,3-Butadiene	FB	Ave	22775 726379	40174 1422296	119974	235457	301575	25.0 625	50.0 1250	125	200	250
Bromomethane	FB	Ave	12194 273788	18695 668441	59240	93899	113736	25.0 625	50.0 1250	125	200	250
Chloroethane	FB	Ave	13353 434438	24083 776717	67812	125246	142231	25.0 625	50.0 1250	125	200	250
Dichlorofluoromethane	FB	Ave	29681 825954	49131 1470991	146720	257419	323088	25.0 625	50.0 1250	125	200	250
Trichlorofluoromethane	FB	Ave	17037 553781	27626 1055116	93194	158839	204408	25.0 625	50.0 1250	125	200	250
Ethyl ether	FB	Ave	17972 466461	27647 928303	83544	163304	183031	25.0 625	50.0 1250	125	200	250
Acrolein	FB	Ave	46463 105882	54298 105153	62483	83035	97515	500 1125	625 1250	750	875	1000
1,1-Dichloroethene	FB	Ave	14628 421942	24711 842868	73570	136804	163045	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	13744 378557	21697 766139	67830	119055	149940	25.0 625	50.0 1250	125	200	250
Acetone	FB	Qua	14902 201769	19118 310913	38032	69811	81549	25.0 625	50.0 1250	125	200	250
Iodomethane	FB	Ave	20830 553175	32543 1128409	106165	179352	223902	25.0 625	50.0 1250	125	200	250
Carbon disulfide	FB	Ave	35548 1183235	56672 2395727	191280	375470	452221	25.0 625	50.0 1250	125	200	250

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	9807 327500	15874 694851	52500	99056	118110	25.0 625	50.0 1250	125	200	250
Methyl acetate	FB	Ave	77523 2382747	159430 4446532	420602	763036	1002674	125 3125	250 6250	625	1000	1250
Methylene Chloride	FB	Lin1	31980 460059	37773 916125	98489	154613	189100	25.0 625	50.0 1250	125	200	250
tert-Butyl alcohol	TBA	Ave	12633 469072	33362 994401	82446	138988	211699	250 6250	500 12500	1250	2000	2500
Acrylonitrile	FB	Ave	66327 2222625	146972 4181548	393987	693827	951721	250 6250	500 12500	1250	2000	2500
trans-1,2-Dichloroethene	FB	Ave	15539 444726	26950 888268	83396	143890	176688	25.0 625	50.0 1250	125	200	250
Methyl tert-butyl ether	FB	Ave	38461 1143385	67567 2327102	199669	356804	463284	25.0 625	50.0 1250	125	200	250
Hexane	FB	Ave	43231 940285	57981 1805679	169364	302424	361964	25.0 625	50.0 1250	125	200	250
1,1-Dichloroethane	FB	Ave	29468 914134	50734 1816914	162959	295304	368704	25.0 625	50.0 1250	125	200	250
Vinyl acetate	FB	Ave	7599 281551	13203 578056	43954	80561	108612	25.0 625	50.0 1250	125	200	250
2,2-Dichloropropane	FB	Ave	10850 349419	18927 682977	62580	114309	136303	25.0 625	50.0 1250	125	200	250
cis-1,2-Dichloroethene	FB	Ave	17276 509367	29454 1012319	89942	161072	198872	25.0 625	50.0 1250	125	200	250
2-Butanone (MEK)	FB	Ave	11554 319995	22376 610471	59821	112603	142829	25.0 625	50.0 1250	125	200	250
Chlorobromomethane	FB	Ave	6467 204457	11984 424964	38648	65755	80374	25.0 625	50.0 1250	125	200	250
Tetrahydrofuran	FB	Ave	12525 396752	25145 775898	71633	126536	161967	50.0 1250	100 2500	250	400	500
Chloroform	FB	Ave	23959 720722	40580 1378961	136266	224986	276932	25.0 625	50.0 1250	125	200	250
1,1,1-Trichloroethane	FB	Ave	15772 505932	27517 994230	95815	161628	194463	25.0 625	50.0 1250	125	200	250
Cyclohexane	FB	Ave	34934 1084522	59860 2120839	205795	345571	425779	25.0 625	50.0 1250	125	200	250
1,1-Dichloropropene	FB	Ave	19960 577165	32939 1151659	112347	184357	223148	25.0 625	50.0 1250	125	200	250
Carbon tetrachloride	FB	Ave	11418 422875	22079 848315	74689	128649	158223	25.0 625	50.0 1250	125	200	250
Isobutyl alcohol	FB	Ave	10526 498735	30374 891459	82782	150361	203108	625 15625	1250 31250	3125	5000	6250

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	64951 1811761	112412 3423248	363797	605217	739862	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane	FB	Ave	17746 541034	30703 1068241	102805	171880	212255	25.0 625	50.0 1250	125	200	250
n-Heptane	FB	Ave	27961 984001	45803 1916244	170999	295285	361941	25.0 625	50.0 1250	125	200	250
Trichloroethene	FB	Ave	15239 444117	27517 886859	83972	139855	172040	25.0 625	50.0 1250	125	200	250
Methylcyclohexane	FB	Ave	28301 901096	48097 1735115	167851	273914	338623	25.0 625	50.0 1250	125	200	250
1,2-Dichloropropane	FB	Ave	17826 558462	29710 1091474	104966	171463	214975	25.0 625	50.0 1250	125	200	250
Dibromomethane	FB	Ave	6818 234192	14609 474300	44755	72679	91632	25.0 625	50.0 1250	125	200	250
1,4-Dioxane	FB	Ave	2219 92441	5551 159918	17444	25716	35290	500 12500	1000 25000	2500	4000	5000
Dichlorobromomethane	FB	Ave	14190 534780	24882 1090974	97543	156361	200561	25.0 625	50.0 1250	125	200	250
cis-1,3-Dichloropropene	FB	Ave	20166 748629	36345 1473045	133255	225254	278437	25.0 625	50.0 1250	125	200	250
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	14819 558085	31090 1096629	103673	173575	224617	25.0 625	50.0 1250	125	200	250
Toluene	CBZ	Ave	66354 1829734	110547 3390346	381673	608112	738818	25.0 625	50.0 1250	125	200	250
trans-1,3-Dichloropropene	CBZ	Ave	16149 583926	28861 1199816	107252	171421	223749	25.0 625	50.0 1250	125	200	250
Ethyl methacrylate	CBZ	Ave	16069 584754	30368 1196268	111476	179109	224776	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloroethane	CBZ	Ave	12749 370774	21353 767893	73242	120965	144787	25.0 625	50.0 1250	125	200	250
Tetrachloroethene	CBZ	Ave	12282 337671	20218 689134	68164	104952	129778	25.0 625	50.0 1250	125	200	250
1,3-Dichloropropane	CBZ	Ave	21578 681657	39432 1370212	134400	210952	267442	25.0 625	50.0 1250	125	200	250
2-Hexanone	CBZ	Ave	14368 454996	29843 831031	88532	156510	194522	25.0 625	50.0 1250	125	200	250
Chlorodibromomethane	CBZ	Ave	8088 344079	14987 719844	60232	96352	124276	25.0 625	50.0 1250	125	200	250
1,2-Dibromoethane	CBZ	Ave	11171 367556	20133 732773	69982	111290	140976	25.0 625	50.0 1250	125	200	250
Chlorobenzene	CBZ	Ave	38319 1162743	70978 2294259	233841	374887	457482	25.0 625	50.0 1250	125	200	250



FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	10516 364504	17512 739886	68866	110152	136678	25.0 625	50.0 1250	125	200	250
Ethylbenzene	CBZ	Ave	23295 673438	37902 1335537	130848	210392	261892	25.0 625	50.0 1250	125	200	250
m-Xylene & p-Xylene	CBZ	Ave	27448 814109	46471 1621563	164565	251894	315186	25.0 625	50.0 1250	125	200	250
o-Xylene	CBZ	Ave	25539 816270	44275 1635623	161863	252365	317356	25.0 625	50.0 1250	125	200	250
Styrene	CBZ	Ave	44867 1353757	78411 2629993	271909	427633	533209	25.0 625	50.0 1250	125	200	250
Bromoform	CBZ	Ave	4605 218144	9556 454708	33712	58834	76310	25.0 625	50.0 1250	125	200	250
Isopropylbenzene	CBZ	Ave	67184 1926823	117783 3440992	416980	639204	803082	25.0 625	50.0 1250	125	200	250
1,1,2,2-Tetrachloroethane	CBZ	Ave	14429 501097	26811 974591	97923	155073	201960	25.0 625	50.0 1250	125	200	250
Bromobenzene	DCB	Ave	14201 447875	26137 878774	91938	139143	173306	25.0 625	50.0 1250	125	200	250
1,2,3-Trichloropropane	DCB	Ave	4389 139582	9144 275050	27654	43578	56043	25.0 625	50.0 1250	125	200	250
trans-1,4-Dichloro-2-butene	DCB	Ave	4814 178239	9223 353295	33354	52023	70950	25.0 625	50.0 1250	125	200	250
N-Propylbenzene	DCB	Ave	17857 563069	30996 1081191	113935	174077	221592	25.0 625	50.0 1250	125	200	250
2-Chlorotoluene	DCB	Ave	14808 452238	25294 858304	88237	141191	175715	25.0 625	50.0 1250	125	200	250
1,3,5-Trimethylbenzene	DCB	Ave	51751 1537961	88962 2718662	323116	502867	636647	25.0 625	50.0 1250	125	200	250
4-Chlorotoluene	DCB	Ave	16513 469635	28655 915789	95589	144969	184132	25.0 625	50.0 1250	125	200	250
tert-Butylbenzene	DCB	Ave	43449 1369275	78766 2351297	279517	441145	558229	25.0 625	50.0 1250	125	200	250
1,2,4-Trimethylbenzene	DCB	Ave	52030 1584536	95873 2708621	323760	508459	651145	25.0 625	50.0 1250	125	200	250
sec-Butylbenzene	DCB	Ave	65680 2016162	117339 3350555	424763	673141	820631	25.0 625	50.0 1250	125	200	250
1,3-Dichlorobenzene	DCB	Ave	27379 870570	52922 1595979	171439	269056	349892	25.0 625	50.0 1250	125	200	250
4-Isopropyltoluene	DCB	Ave	52462 1611881	97514 2718927	343591	534168	653311	25.0 625	50.0 1250	125	200	250
1,4-Dichlorobenzene	DCB	Ave	27879 831810	51485 1535511	168870	271251	342103	25.0 625	50.0 1250	125	200	250

FORM VI  
GC/MS VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 118826

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) Y

Calibration Start Date: 09/22/2014 11:07 Calibration End Date: 09/22/2014 13:30 Calibration ID: 17914

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	48014 1631846	90907 2796580	328951	531476	665833	25.0 625	50.0 1250	125	200	250
1,2-Dichlorobenzene	DCB	Ave	24885 770334	47228 1447010	158938	250778	316343	25.0 625	50.0 1250	125	200	250
1,2-Dibromo-3-Chloropropane	DCB	Ave	1944 80179	3760 162992	13199	21572	31645	25.0 625	50.0 1250	125	200	250
1,2,4-Trichlorobenzene	DCB	Ave	12354 407723	24579 1032089	84480	126238	182391	25.0 625	50.0 1250	125	200	250
Hexachlorobutadiene	DCB	Ave	5684 181983	10364 516423	39102	57911	78151	25.0 625	50.0 1250	125	200	250
Naphthalene	DCB	Ave	31033 1034806	65414 2292118	204256	309834	477511	25.0 625	50.0 1250	125	200	250
1,2,3-Trichlorobenzene	DCB	Ave	10471 347383	20184 925139	66704	104456	145763	25.0 625	50.0 1250	125	200	250
Dibromofluoromethane (Surr)	FB	Ave	13013 360044	21486 732129	66984	117254	141042	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane-d4 (Surr)	FB	Ave	13726 427023	26005 848729	81002	136968	168307	25.0 625	50.0 1250	125	200	250
Toluene-d8 (Surr)	CBZ	Ave	56775 1558387	103928 3016106	316945	524871	641835	25.0 625	50.0 1250	125	200	250
4-Bromofluorobenzene (Surr)	CBZ	Ave	19817 557450	34550 1116740	112241	177775	230965	25.0 625	50.0 1250	125	200	250

Curve Type Legend:

Ave = Average ISTD  
Lin1 = Linear 1/conc ISTD  
Qua = Quadratic ISTD

TestAmerica Laboratories  
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m

Instrument: CHHP3

Lims Location: 180

Lock State: Initial Calib Locked

Cpnd Order: Compound Type

Integrator: RTE

Last Modified: 22-Sep-2014 20:48:23

No.Compounds:134

## Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CHHP3\20140307-141.b

Inj Date : 07-Mar-2014 05:54:30, Sublist: chrom-MSVOA\_S\_CHHP3\*sub3

Ical Batch: \\PITCHROM\ChromData\CHHP3\20140922-3407.b

Inj Date : 22-Sep-2014 11:07:30, Sublist: chrom-MSVOA\_S\_CHHP3\*sub4

Limit Group: VOA 8260C ICAL

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
* 1 TBA-d9 (IS)	98924	90652	94040	94370	93949	90142	98119
* 2 Fluorobenzene (IS)	741340	745238	724763	715618	697872	714549	755794
* 3 Chlorobenzene-d5	151741	154229	150578	150619	146644	153632	161511
* 4 1,4-Dichlorobenzene-d4	210050	201989	200484	199325	198180	203703	224424
\$ 5 Dibromofluoromethane (	-0.3	-1.3	-1.1	3.2	1.8	-1.6	-0.6
\$ 6 1,2-Dichloroethane-d4	-10.0	2.2	2.3	3.1	4.0	-0.2	-1.4
\$ 7 Toluene-d8 (Surr)	-1.3	9.3	0.6	6.2	-0.3	-3.1	-11.4
\$ 8 4-Bromofluorobenzene (	-1.8	3.5	1.5	2.4	2.2	-1.3	-6.6
10 Dichlorodifluoromethan	-19.6	-6.4	-1.4	4.2	7.5	8.0	7.6
11 Chloromethane	-12.3	-3.5	-5.0	5.8	12.2	1.5	1.1
12 Vinyl chloride	-12.7	-0.3	-5.5	6.3	9.5	2.3	0.4
13 Butadiene	-9.7	-4.5	-8.4	7.2	12.7	2.7	-0.1
14 Bromomethane	9.5	0.7	2.5	-3.1	-3.7	-12.3	6.4
15 Chloroethane	-4.6	3.3	-6.6	2.8	-4.1	10.8	-1.6
16 Dichlorofluoromethane	2.4	1.6	-2.5	2.0	5.0	1.6	-10.1
17 Trichlorofluoromethane	-6.5	-9.1	-1.4	0.1	5.8	8.4	2.7
18 Ethanol	* 36.1	-2.5	-8.2	-0.8	-6.5	-8.9	-9.3
19 Ethyl ether	5.0	-3.1	-5.9	9.6	0.9	-2.7	-3.8
20 Acrolein	5.8	18.6	-8.6	-0.7	4.6	-4.5	-15.1
21 1,1-Dichloroethene	-2.2	-0.9	-5.2	5.1	2.8	0.6	-0.1
22 1,1,2-Trichloro-1,2,2-	1.6	-3.8	-3.4	1.1	4.5	-0.2	0.4
23 Acetone	* 48.5	23.7	-16.1	-2.7	-4.8	3.3	-0.7
24 Iodomethane	2.5	-4.0	0.7	1.4	3.9	-2.9	-1.6
25 Carbon disulfide	-10.1	-14.1	-6.8	9.1	7.8	6.7	7.4
26 Isopropyl alcohol	-10.6	-5.5	-6.2	10.7	3.9	-0.3	7.9
R7 27 Acetonitrile	* 36.8	-25.6	-6.3	-0.5	7.2	-1.0	0.1
28 3-Chloro-1-propene	-9.6	-12.3	-6.8	4.9	2.6	7.7	13.5
29 Methyl acetate	-9.6	11.5	-5.5	2.2	10.3	-0.9	-8.1
30 Methylene Chloride	4.6	-5.8	0.0	-0.4	2.4	-0.7	0.1
31 2-Methyl-2-propanol	-6.3	-8.7	-5.5	-0.8	-5.3	-6.4	* 32.9
32 Acrylonitrile	-16.1	11.5	-3.9	0.8	13.5	0.3	-6.2
33 trans-1,2-Dichloroethe	-3.4	0.5	-0.1	2.8	3.6	-1.4	-2.1
34 Methyl tert-butyl ethe	-5.3	-0.2	-5.2	1.0	7.6	0.5	1.6
35 Hexane	23.5	-0.7	-6.8	-0.8	-2.5	-4.2	-8.6
36 1,1-Dichloroethane	-8.2	-5.2	-2.2	5.6	8.2	1.5	0.3
37 Vinyl acetate	-16.6	-13.1	-7.0	1.6	12.4	10.2	12.5
38 2-Chloro-1,3-butadiene	-2.1	-7.9	-3.6	1.2	1.5	6.0	4.9
39 Isopropyl ether	1.5	0.2	-2.0	0.9	-0.3	2.1	-2.5
40 Tert-butyl ethyl ether	1.2	-5.0	-2.1	1.0	0.2	2.8	2.0

Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
41 2,2-Dichloropropane	-10.5	-6.3	-0.5	8.4	6.1	2.9	-0.1
42 cis-1,2-Dichloroethene	-3.7	-1.6	-3.4	3.1	4.5	1.2	0.0
45 Ethyl acetate	-2.1	-7.7	-2.8	-0.3	0.6	3.7	8.4
43 2-Butanone (MEK)	-5.0	10.3	-5.2	6.4	10.7	-6.2	-11.0
44 Propionitrile	0.2	-0.7	-2.4	1.1	-2.1	-0.6	4.5
47 Chlorobromomethane	-11.3	-1.5	2.1	3.6	3.9	0.0	3.3
46 Methacrylonitrile	1.1	-2.2	-2.4	2.5	3.1	2.2	-4.3
48 Tetrahydrofuran	-11.5	6.5	-2.5	2.7	7.8	-0.1	-2.9
49 Chloroform	-5.1	-3.6	4.0	2.4	3.5	1.9	-3.1
50 1,1,1-Trichloroethane	-10.5	-6.3	4.8	5.4	4.1	2.4	0.1
51 Cyclohexane	-8.3	-5.7	4.1	4.2	5.4	1.6	-1.3
52 1,1-Dichloropropene	-3.4	-4.4	4.8	2.5	1.9	-0.3	-1.2
53 Carbon tetrachloride	-19.2	-6.2	1.9	4.6	5.6	6.8	6.5
57 Tert-amyl methyl ether	-2.3	-5.3	-2.7	1.5	0.6	3.3	4.9
54 Isobutyl alcohol	* -35.8	11.2	-2.7	5.4	16.9	8.6	-3.6
R7							
55 Benzene	-2.7	1.0	5.1	4.2	4.5	-3.1	-9.1
56 1,2-Dichloroethane	-7.3	-3.8	3.5	3.2	4.6	0.8	-1.0
58 Isooctane	2.5	-0.7	-0.4	3.5	2.7	3.0	-10.7
59 n-Heptane	-13.2	-14.7	2.3	5.3	5.9	9.0	5.4
60 Trichloroethene	-4.6	3.4	1.3	0.6	1.6	-0.8	-1.5
61 n-Butanol	-27.8	-16.2	-8.2	10.6	5.9	10.3	25.4
R7							
66 Methyl methacrylate	-13.4	-8.8	-5.3	1.9	3.8	6.7	15.1
62 Ethyl acrylate	-14.7	-12.2	0.8	1.9	1.7	6.2	16.3
63 Methylcyclohexane	-8.2	-6.4	4.9	2.1	3.6	4.3	-0.2
64 1,2-Dichloropropane	-7.6	-7.7	4.8	2.1	5.0	3.2	0.2
65 Dibromomethane	-17.6	5.8	4.2	0.8	4.3	0.9	1.6
67 1,4-Dioxane	-27.2	9.3	10.3	-3.0	9.2	8.2	-6.9
R7							
68 Dichlorobromomethane	-19.4	-15.2	6.8	2.1	7.4	8.4	9.9
70 2-Chloroethyl vinyl et	-11.5	-13.3	4.0	-1.7	3.4	6.3	12.8
69 2-Nitropropane	-24.2	-9.3	-3.8	-2.6	-5.5	12.3	* 33.1
71 cis-1,3-Dichloropropen	-18.2	-11.6	4.1	5.0	6.5	8.3	5.9
72 4-Methyl-2-pentanone (	-21.0	0.3	0.9	7.7	6.9	6.4	-1.2
73 Toluene	0.5	1.3	5.5	7.1	-0.1	-1.0	-13.3
74 trans-1,3-Dichloroprop	-15.8	-9.0	2.1	4.0	4.2	8.8	5.7
75 Ethyl methacrylate	-17.8	-6.0	4.2	6.6	2.7	6.9	3.4
76 1,1,2-Trichloroethane	-3.3	-2.0	1.5	6.8	-1.9	0.5	-1.6
77 Tetrachloroethene	1.8	1.4	3.2	1.2	-4.0	0.0	-3.5
78 1,3-Dichloropropane	-9.0	0.7	3.6	3.5	0.8	2.8	-2.3
79 2-Hexanone	-12.1	10.4	-1.1	11.3	6.2	-0.5	-14.2
80 n-Butyl acetate	-10.5	-11.5	-5.9	5.0	2.5	4.8	15.7
81 Chlorodibromomethane	-24.4	-15.3	2.8	4.7	3.7	14.9	13.6
82 Ethylene Dibromide	-10.3	-2.2	2.6	4.0	1.1	5.5	-0.6
83 Chlorobenzene	-7.1	4.1	3.5	5.7	-1.0	0.8	-6.0
85 1,1,1,2-Tetrachloroeth	-12.6	-12.0	4.5	6.5	1.4	8.3	3.9
86 Ethylbenzene	-0.9	-2.5	1.6	4.1	-0.6	2.4	-4.1
87 m-Xylene & p-Xylene	-3.7	-1.4	5.4	2.8	-1.3	2.1	-3.9
88 o-Xylene	-9.0	-4.5	5.4	4.6	1.0	4.0	-1.5
89 Styrene	-5.4	0.0	4.6	4.9	0.3	2.0	-6.4
90 Bromoform	-29.4	-11.4	-5.7	4.9	4.4	19.5	17.7
91 Isopropylbenzene	-3.6	2.3	9.3	6.7	2.9	-1.1	-16.6
92 Cyclohexanone	-22.3	-10.8	-9.5	14.9	4.7	5.4	17.6
93 1,1,2,2-Tetrachloroeth	-15.1	-4.6	5.2	6.1	6.1	5.4	-3.1
94 Bromobenzene	-6.2	-4.4	6.0	2.0	-2.6	0.7	4.6
95 1,2,3-Trichloropropane	-8.5	5.5	0.6	0.8	-0.6	-1.0	3.3
96 trans-1,4-Dichloro-2-b	-15.7	-10.6	1.9	1.0	5.7	6.2	11.5
97 N-Propylbenzene	-5.1	-8.8	5.7	2.6	0.2	1.8	3.5
98 2-Chlorotoluene	-1.9	-7.3	2.0	3.8	-0.9	1.9	2.4

Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
99 1,3,5-Trimethylbenzene	-1.7	-6.5	7.0	5.9	2.9	-0.6	-7.0
100 4-Chlorotoluene	2.0	-2.0	3.1	-0.6	-3.2	-1.2	2.0
101 tert-Butylbenzene	-5.3	-5.0	6.3	6.6	3.5	1.5	-7.7
102 Pentachloroethane	-16.9	0.1	-4.5	8.1	2.4	5.0	5.8
103 1,2,4-Trimethylbenzene	-3.2	-1.2	5.1	5.0	3.1	0.4	-9.2
104 sec-Butylbenzene	-3.9	-4.9	8.5	9.3	2.2	0.4	-11.6
105 1,3-Dichlorobenzene	-6.3	0.2	2.3	2.1	1.9	1.4	-1.6
108 1,2,3-Trimethylbenzene	-5.0	4.0	3.6	5.4	2.4	0.9	-11.3
106 4-Isopropyltoluene	-4.6	-1.9	9.0	7.7	1.1	-0.3	-10.9
107 1,4-Dichlorobenzene	-2.9	-0.8	2.6	4.8	1.4	-1.4	-3.7
109 Benzyl chloride	30.2	1.7	-14.6	-8.2	-13.1	-1.5	5.5
110 n-Butylbenzene	-10.9	-6.6	6.5	9.4	5.1	3.0	-6.5
111 1,2-Dichlorobenzene	-6.3	-1.5	4.5	4.8	1.4	-1.2	-1.8
112 1,2-Dibromo-3-Chloropr	-20.3	-14.7	-5.6	-1.9	10.4	11.8	20.4
113 1,3,5-Trichlorobenzene	-10.3	2.1	2.2	4.3	0.8	3.3	-2.3
114 1,2,4-Trichlorobenzene	-15.8	-7.3	0.5	-4.5	5.8	-5.4	26.8
115 Hexachlorobutadiene	-15.0	-14.2	2.0	-3.9	-0.6	-7.4	* 39.1
116 Naphthalene	-14.6	-0.4	-1.9	-5.4	11.8	-3.1	13.6
117 1,2,3-Trichlorobenzene	-14.5	-8.8	-5.0	-5.4	1.2	-3.5	* 36.1
118 2-Methylnaphthalene	* 92.0	10.6	-25.2	-1.1	-0.8	1.4	-0.1

RB

## ICalib Error Legend

R7, Calibration Average RF &lt; Min. RF Limit

RB, Low Point Test Fails

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 22-Sep-2014 11:07:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:42 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 11:24:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.719	4.719	0.000	96	206253	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.615	0.000	99	620831	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	87	138186	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	95	183679	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.867	6.867	0.000	93	13013	25.0	24.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.238	7.238	0.000	93	13726	25.0	22.5	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	94	56775	25.0	24.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.855	11.855	0.000	86	19817	25.0	24.5	
10 Dichlorodifluoromethane	85	1.799	1.799	0.000	6	12017	25.0	20.1	M
11 Chloromethane	50	1.945	1.945	0.000	99	24702	25.0	21.9	
12 Vinyl chloride	62	2.103	2.103	0.000	59	24409	25.0	21.8	
13 Butadiene	39	2.134	2.134	0.000	89	22775	25.0	22.6	
14 Bromomethane	94	2.481	2.481	0.000	85	12194	25.0	27.4	
15 Chloroethane	64	2.639	2.639	0.000	96	13353	25.0	23.9	M
16 Dichlorofluoromethane	67	2.931	2.931	0.000	97	29681	25.0	25.6	
17 Trichlorofluoromethane	101	2.992	2.992	0.000	28	17037	25.0	23.4	M
19 Ethyl ether	59	3.430	3.430	0.000	97	17972	25.0	26.3	M
20 Acrolein	56	3.588	3.588	0.000	96	46463	500.0	528.8	M
21 1,1-Dichloroethene	96	3.758	3.758	0.000	95	14628	25.0	24.4	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.807	3.807	0.000	46	13744	25.0	25.4	
23 Acetone	43	3.861	3.861	0.000	97	14902	25.0	37.1	
24 Iodomethane	142	4.007	4.007	0.000	92	20830	25.0	25.6	M
25 Carbon disulfide	76	4.074	4.074	0.000	87	35548	25.0	22.5	M
28 3-Chloro-1-propene	76	4.348	4.348	0.000	93	9807	25.0	22.6	M
29 Methyl acetate	43	4.433	4.433	0.000	99	77523	125.0	113.0	
30 Methylene Chloride	84	4.543	4.543	0.000	97	31980	25.0	26.1	M
31 2-Methyl-2-propanol	59	4.841	4.841	0.000	98	12633	250.0	234.3	
32 Acrylonitrile	53	4.920	4.920	0.000	99	66327	250.0	209.8	M
33 trans-1,2-Dichloroethene	96	4.963	4.963	0.000	93	15539	25.0	24.2	
34 Methyl tert-butyl ether	73	5.005	5.005	0.000	96	38461	25.0	23.7	M
35 Hexane	57	5.388	5.388	0.000	88	43231	25.0	30.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.553	5.553	0.000	70	29468	25.0	22.9	M
37 Vinyl acetate	43	5.668	5.668	0.000	72	7599	25.0	20.9	
41 2,2-Dichloropropane	77	6.295	6.295	0.000	51	10850	25.0	22.4	
42 cis-1,2-Dichloroethene	96	6.295	6.295	0.000	83	17276	25.0	24.1	
43 2-Butanone (MEK)	43	6.337	6.337	0.000	94	11554	25.0	23.7	
47 Chlorobromomethane	128	6.587	6.587	0.000	91	6467	25.0	22.2	
48 Tetrahydrofuran	42	6.648	6.648	0.000	95	12525	50.0	44.2	
49 Chloroform	83	6.684	6.684	0.000	94	23959	25.0	23.7	
50 1,1,1-Trichloroethane	97	6.897	6.897	0.000	95	15772	25.0	22.4	
51 Cyclohexane	56	6.964	6.964	0.000	92	34934	25.0	22.9	
52 1,1-Dichloropropene	75	7.092	7.092	0.000	95	19960	25.0	24.2	
53 Carbon tetrachloride	117	7.092	7.092	0.000	66	11418	25.0	20.2	
54 Isobutyl alcohol	41	7.256	7.256	0.000	90	10526	625.0	401.5	
55 Benzene	78	7.311	7.311	0.000	97	64951	25.0	24.3	
56 1,2-Dichloroethane	62	7.329	7.329	0.000	69	17746	25.0	23.2	
59 n-Heptane	43	7.639	7.639	0.000	93	27961	25.0	21.7	
60 Trichloroethene	130	8.010	8.010	0.000	96	15239	25.0	23.9	
63 Methylcyclohexane	83	8.223	8.223	0.000	94	28301	25.0	23.0	
64 1,2-Dichloropropane	63	8.242	8.242	0.000	73	17826	25.0	23.1	
65 Dibromomethane	93	8.351	8.351	0.000	92	6818	25.0	20.6	
67 1,4-Dioxane	88	8.388	8.388	0.000	40	2219	500.0	364.2	
68 Dichlorobromomethane	83	8.521	8.521	0.000	96	14190	25.0	20.2	
71 cis-1,3-Dichloropropene	75	8.978	8.978	0.000	95	20166	25.0	20.4	
72 4-Methyl-2-pentanone (MIBK)	43	9.136	9.136	0.000	97	14819	25.0	19.8	
73 Toluene	91	9.324	9.324	0.000	97	66354	25.0	25.1	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	95	16149	25.0	21.0	
75 Ethyl methacrylate	69	9.629	9.629	0.000	96	16069	25.0	20.6	
76 1,1,2-Trichloroethane	97	9.720	9.720	0.000	89	12749	25.0	24.2	
77 Tetrachloroethene	164	9.884	9.884	0.000	83	12282	25.0	25.4	
78 1,3-Dichloropropane	76	9.884	9.884	0.000	92	21578	25.0	22.8	
79 2-Hexanone	43	9.957	9.957	0.000	97	14368	25.0	22.0	
81 Chlorodibromomethane	129	10.115	10.115	0.000	93	8088	25.0	18.9	
82 Ethylene Dibromide	107	10.231	10.231	0.000	99	11171	25.0	22.4	
83 Chlorobenzene	112	10.724	10.724	0.000	93	38319	25.0	23.2	
85 1,1,1,2-Tetrachloroethane	131	10.797	10.797	0.000	94	10516	25.0	21.8	
86 Ethylbenzene	106	10.833	10.833	0.000	97	23295	25.0	24.8	
87 m-Xylene & p-Xylene	106	10.949	10.949	0.000	99	27448	25.0	24.1	
88 o-Xylene	106	11.344	11.344	0.000	88	25539	25.0	22.8	
89 Styrene	104	11.350	11.350	0.000	91	44867	25.0	23.6	
90 Bromoform	173	11.533	11.533	0.000	88	4605	25.0	17.6	
91 Isopropylbenzene	105	11.709	11.709	0.000	95	67184	25.0	24.1	M
93 1,1,2,2-Tetrachloroethane	83	11.989	11.989	0.000	92	14429	25.0	21.2	
94 Bromobenzene	156	12.019	12.019	0.000	94	14201	25.0	23.4	
95 1,2,3-Trichloropropane	110	12.032	12.032	0.000	79	4389	25.0	22.9	
96 trans-1,4-Dichloro-2-buten	53	12.044	12.044	0.000	68	4814	25.0	21.1	
97 N-Propylbenzene	120	12.129	12.129	0.000	99	17857	25.0	23.7	
98 2-Chlorotoluene	126	12.214	12.214	0.000	97	14808	25.0	24.5	
99 1,3,5-Trimethylbenzene	105	12.293	12.293	0.000	94	51751	25.0	24.6	
100 4-Chlorotoluene	126	12.311	12.311	0.000	97	16513	25.0	25.5	
101 tert-Butylbenzene	119	12.628	12.628	0.000	91	43449	25.0	23.7	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	94	52030	25.0	24.2	
104 sec-Butylbenzene	105	12.847	12.847	0.000	93	65680	25.0	24.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.956	12.956	0.000	96	27379	25.0	23.4	
106 4-Isopropyltoluene	119	12.987	12.987	0.000	97	52462	25.0	23.8	
107 1,4-Dichlorobenzene	146	13.041	13.041	0.000	94	27879	25.0	24.3	
110 n-Butylbenzene	91	13.400	13.400	0.000	97	48014	25.0	22.3	
111 1,2-Dichlorobenzene	146	13.425	13.425	0.000	97	24885	25.0	23.4	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.203	0.000	82	1944	25.0	19.9	M
114 1,2,4-Trichlorobenzene	180	15.049	15.049	0.000	94	12354	25.0	21.0	
115 Hexachlorobutadiene	225	15.225	15.225	0.000	93	5684	25.0	21.2	
116 Naphthalene	128	15.304	15.304	0.000	97	31033	25.0	21.3	
117 1,2,3-Trichlorobenzene	180	15.572	15.572	0.000	92	10471	25.0	21.4	
S 129 Xylenes, Total	106				0		50.0	46.8	
S 130 1,2-Dichloroethene, Total	96				0		50.0	48.2	
S 131 1,3-Dichloropropene, Total	1				0		50.0	41.5	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR_00021	Amount Added: 1.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 20.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 1.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD5

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

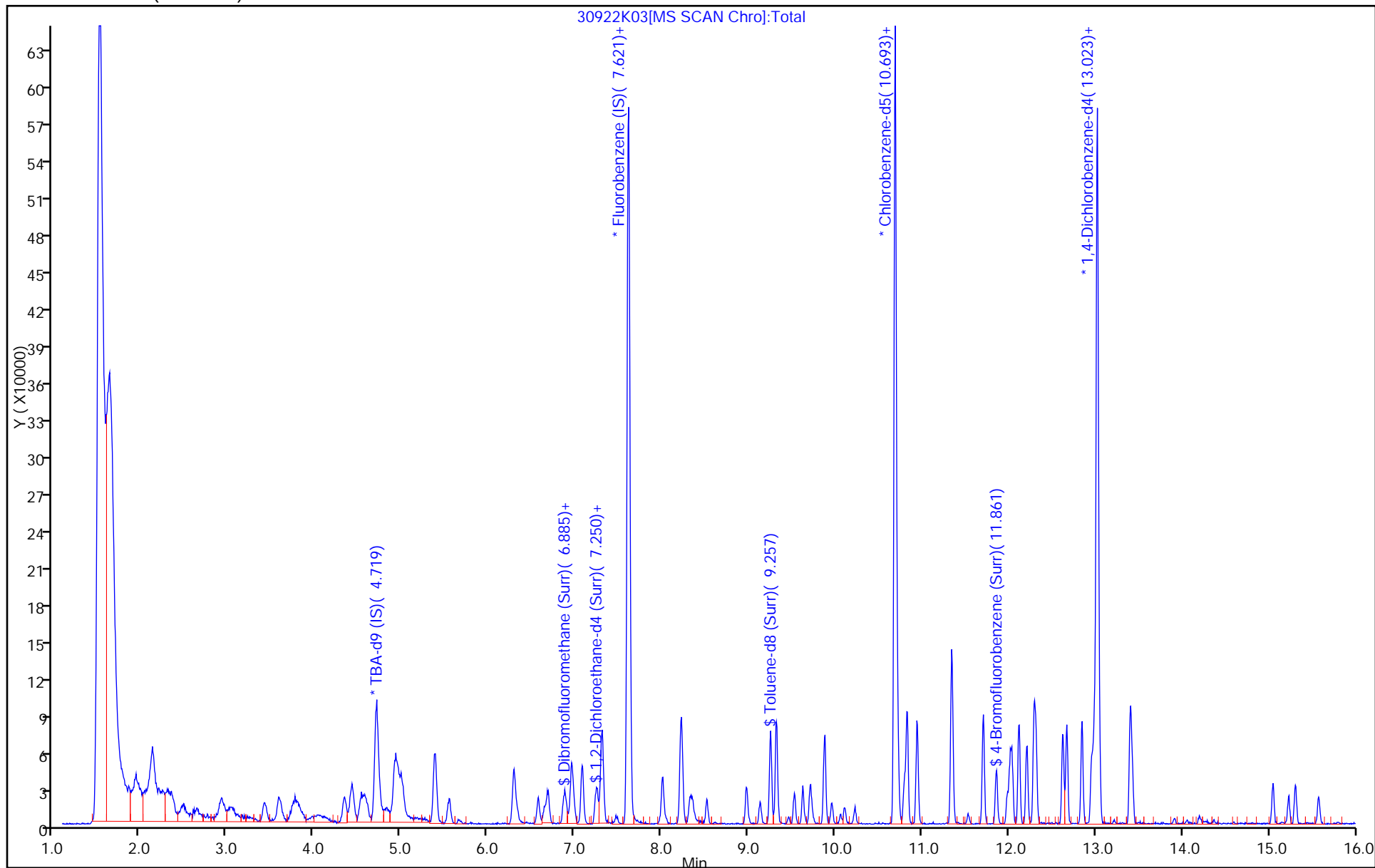
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

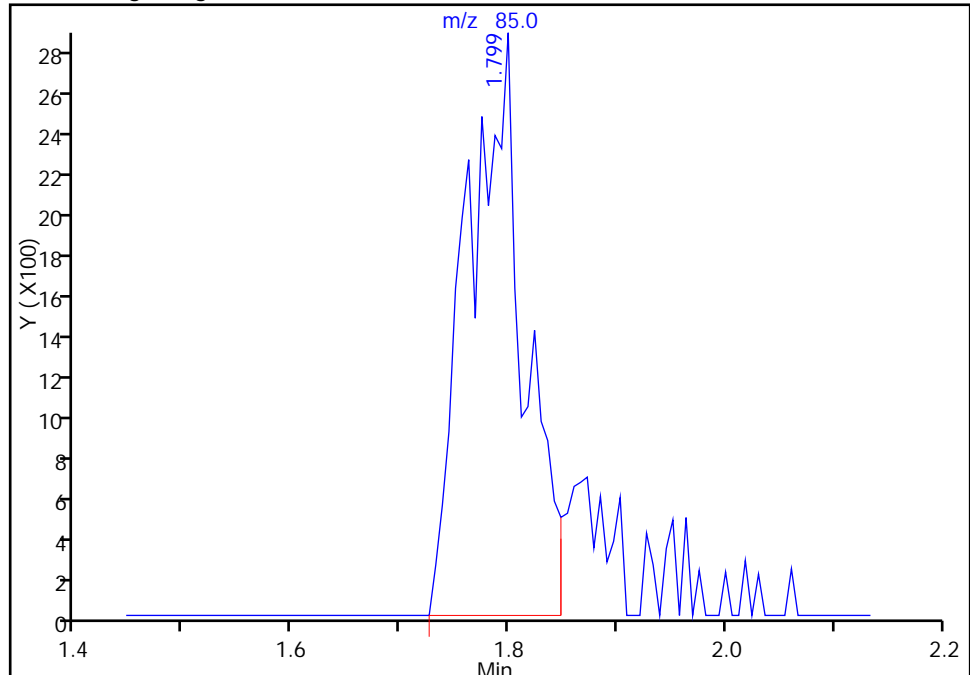
Detector

MS SCAN

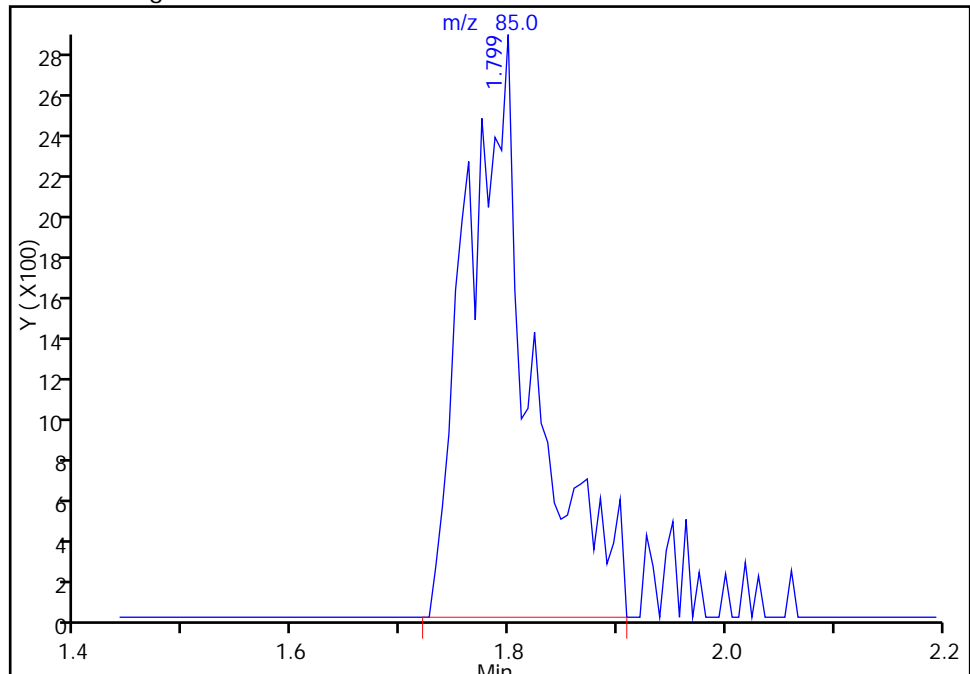
## 10 Dichlorodifluoromethane, CAS: 75-71-8

RT: 1.80  
Response: 10366  
Amount: 25.000000

## Processing Integration Results

RT: 1.80  
Response: 12017  
Amount: 20.102927

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

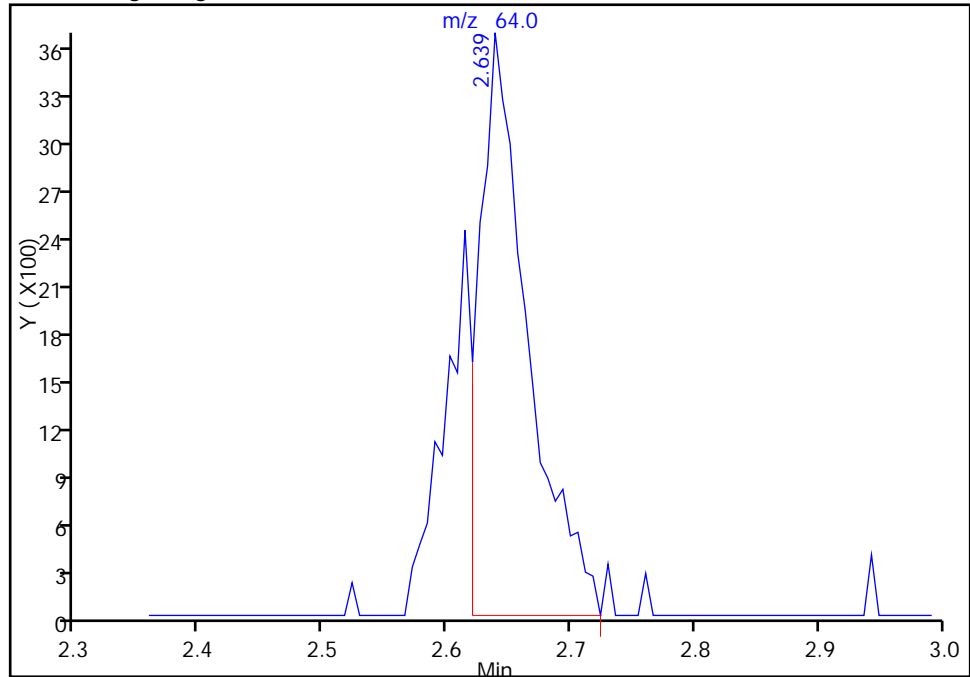
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 15 Chloroethane, CAS: 75-00-3

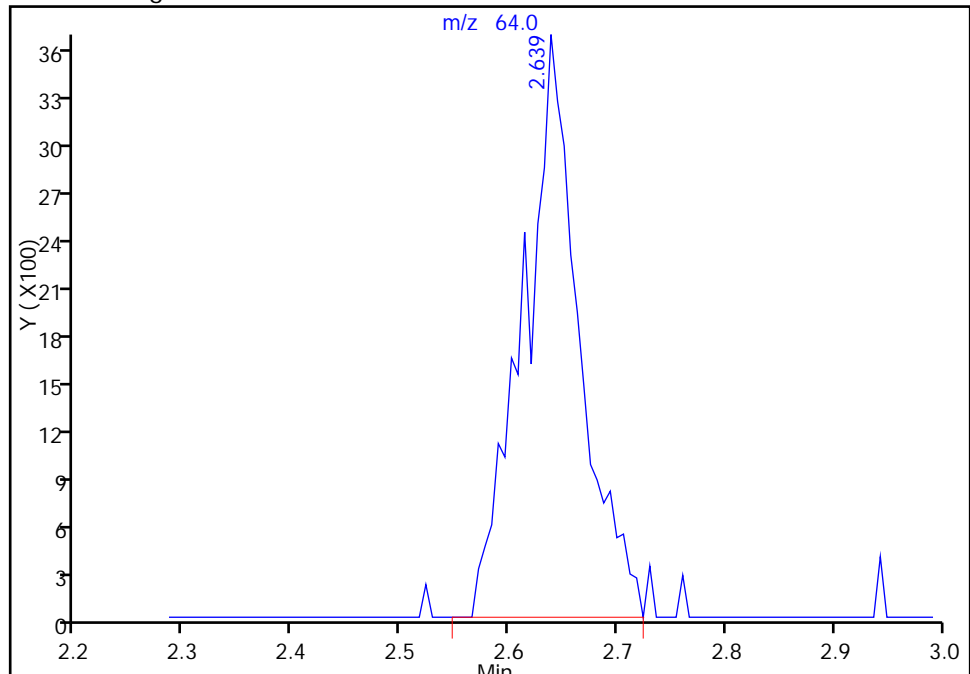
RT: 2.64  
Response: 10038  
Amount: 25.000000

## Processing Integration Results



RT: 2.64  
Response: 13353  
Amount: 23.862171

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

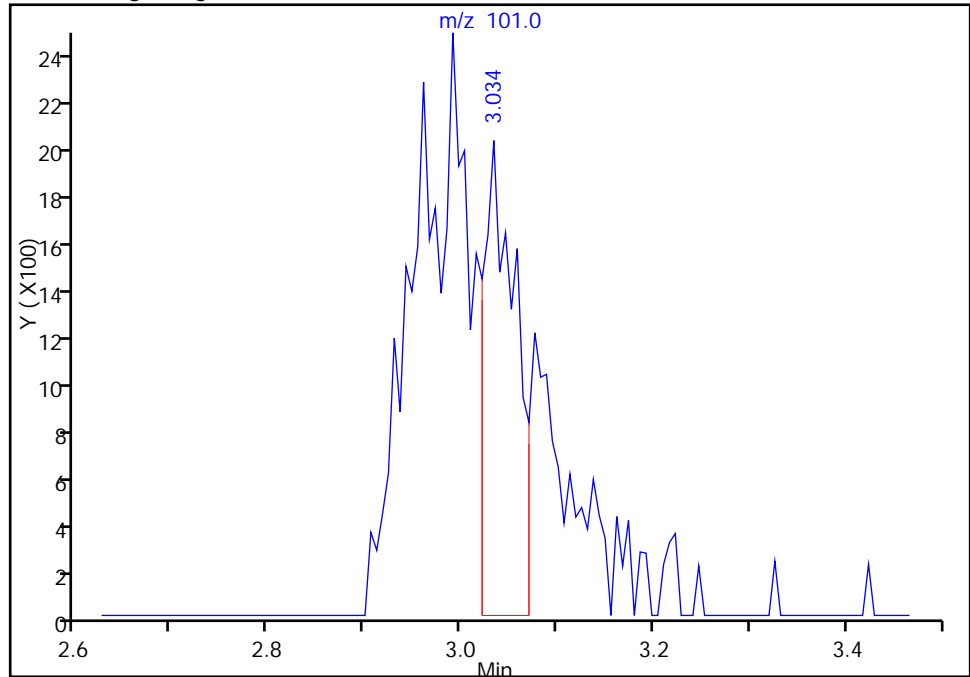
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 17 Trichlorofluoromethane, CAS: 75-69-4

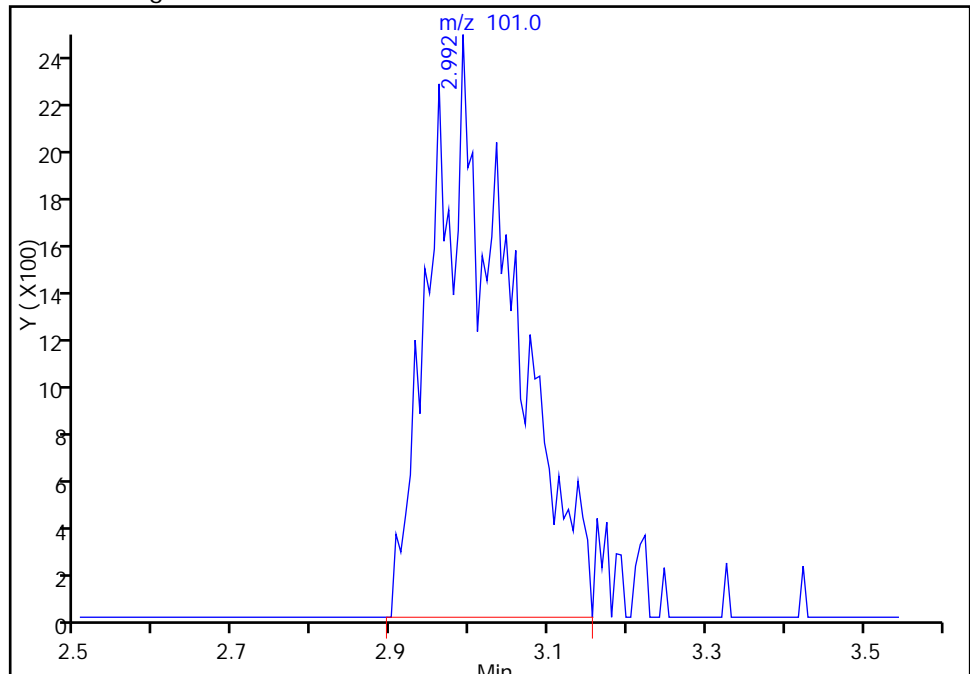
RT: 3.03  
Response: 4646  
Amount: 25.000000

## Processing Integration Results



RT: 2.99  
Response: 17037  
Amount: 23.376504

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

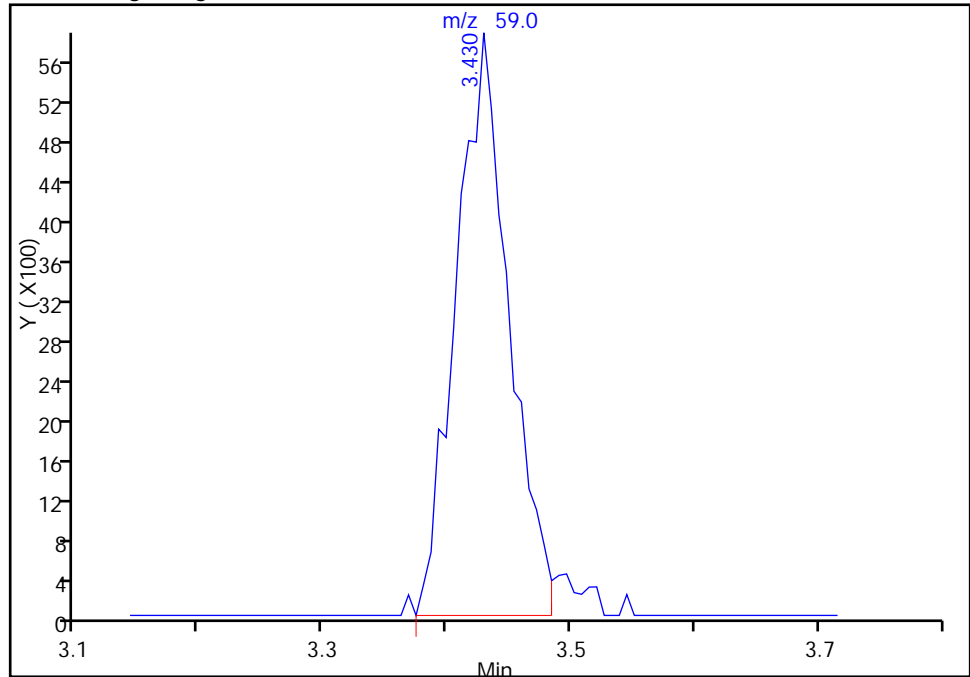
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 19 Ethyl ether, CAS: 60-29-7

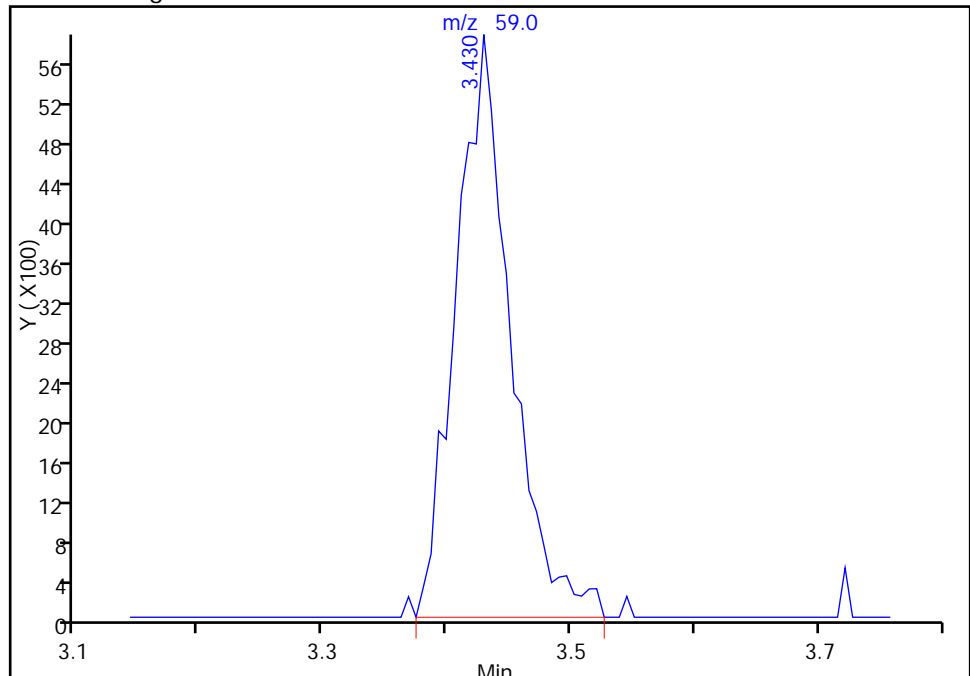
RT: 3.43  
Response: 17304  
Amount: 25.000000

## Processing Integration Results



RT: 3.43  
Response: 17972  
Amount: 26.260750

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

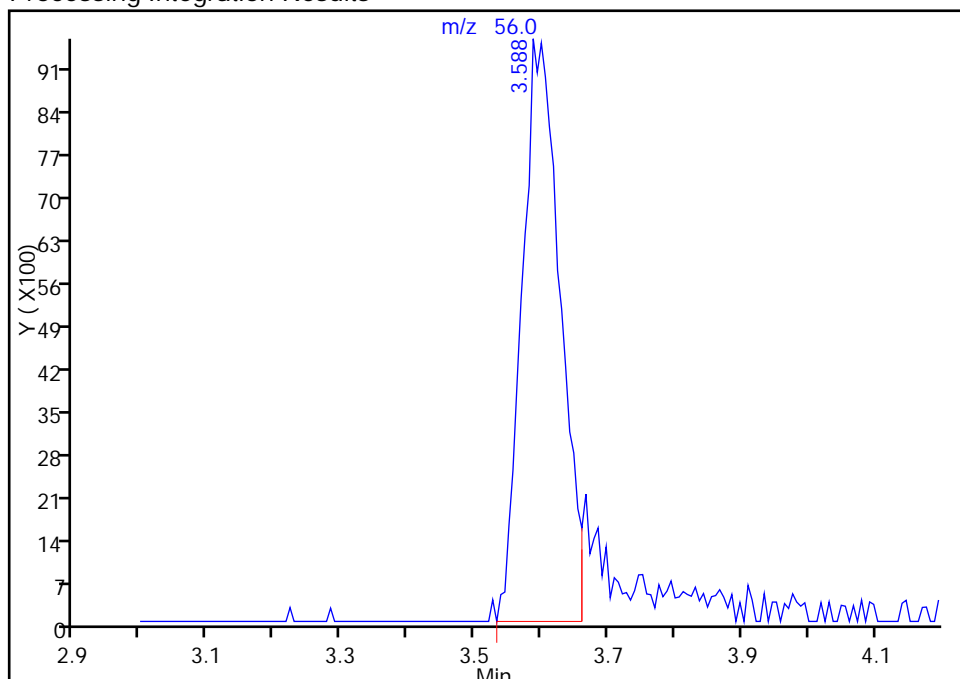
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D  
Injection Date: 22-Sep-2014 11:07:30 Instrument ID: CHHP3  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 10099 ALS Bottle#: 3 Worklist Smp#: 3  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_S\_CHHP3 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

## 20 Acrolein, CAS: 107-02-8

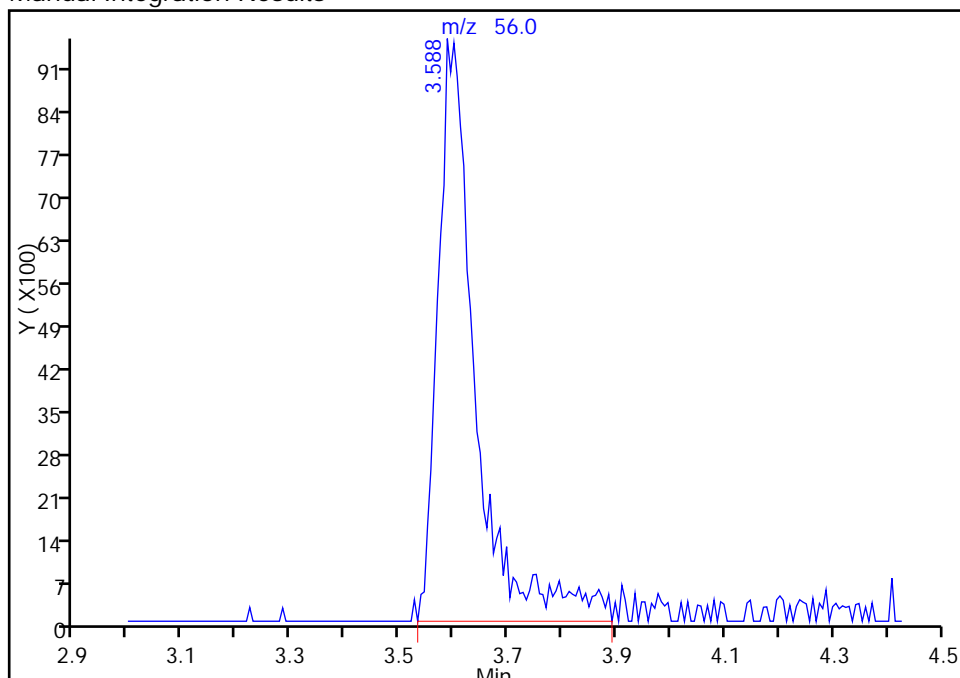
RT: 3.59  
Response: 38222  
Amount: 500.0000

## Processing Integration Results



RT: 3.59  
Response: 46463  
Amount: 528.8020

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

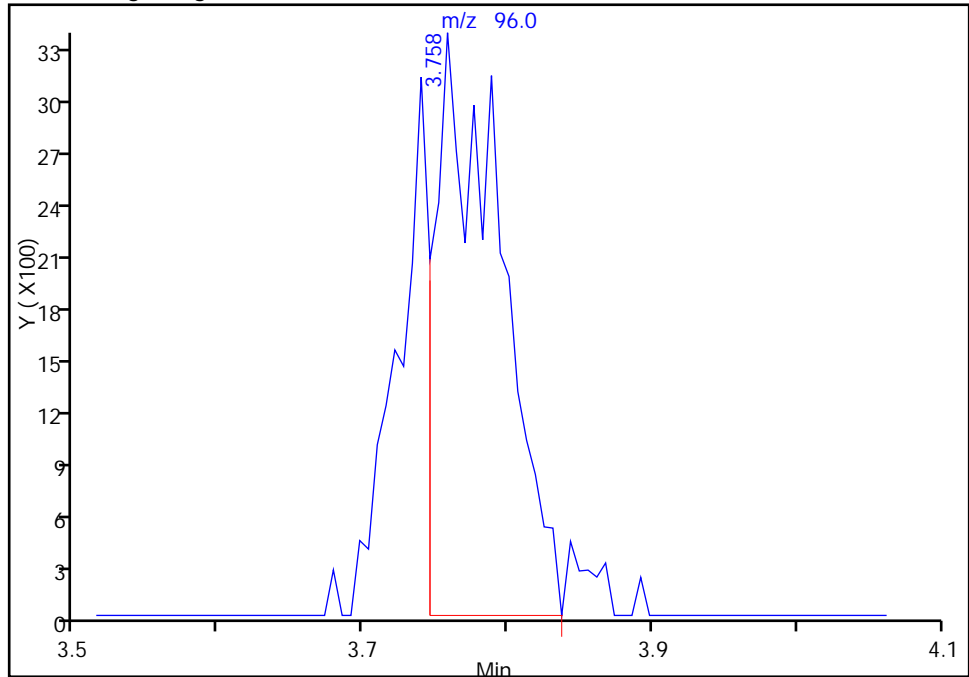
Column: DB-624 (0.18 mm)

Detector: MS SCAN

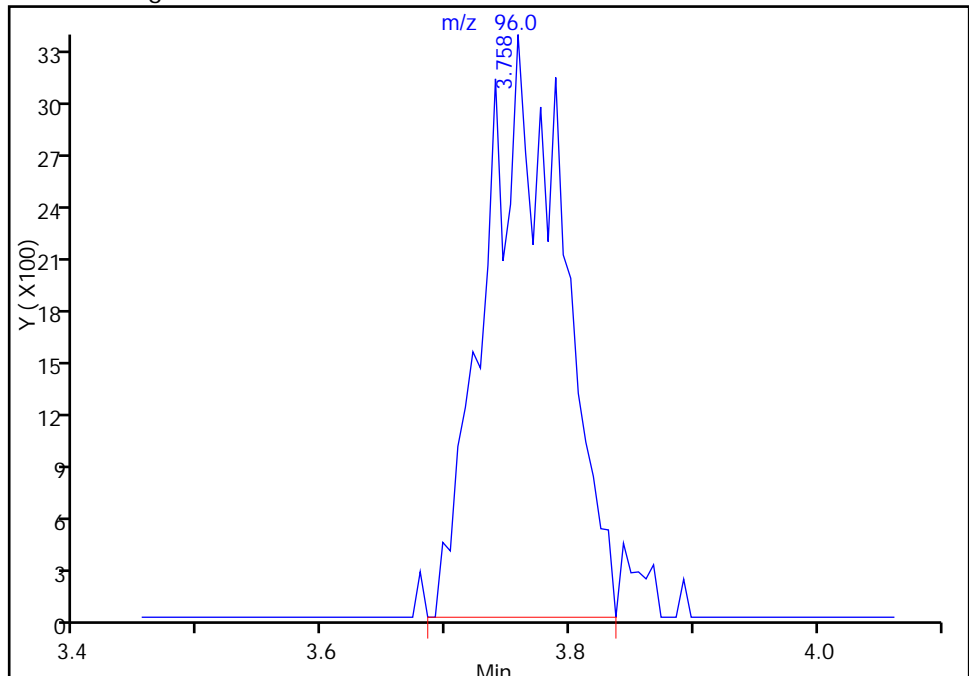
## 21 1,1-Dichloroethene, CAS: 75-35-4

RT: 3.76  
Response: 10578  
Amount: 25.000000

## Processing Integration Results

RT: 3.76  
Response: 14628  
Amount: 24.448392

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

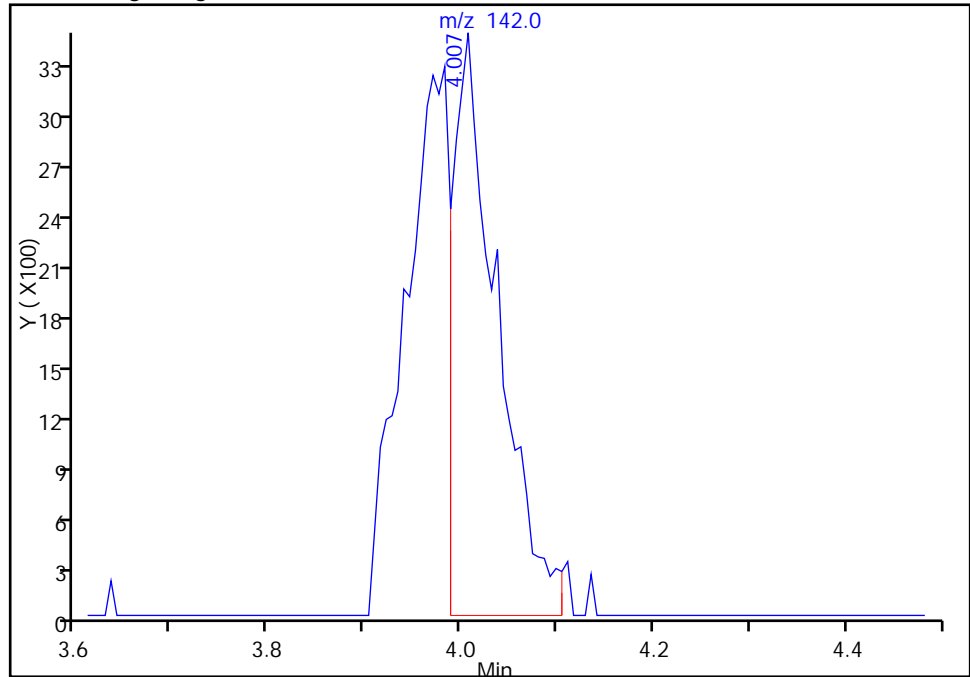
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 24 Iodomethane, CAS: 74-88-4

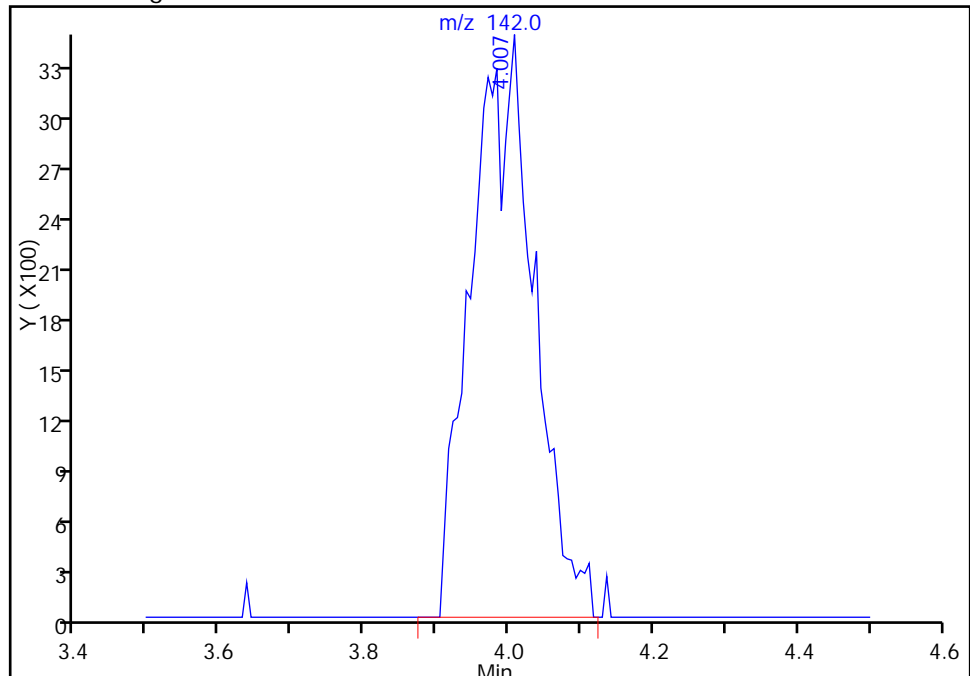
RT: 4.01  
Response: 11119  
Amount: 25.000000

## Processing Integration Results



RT: 4.01  
Response: 20830  
Amount: 25.624735

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

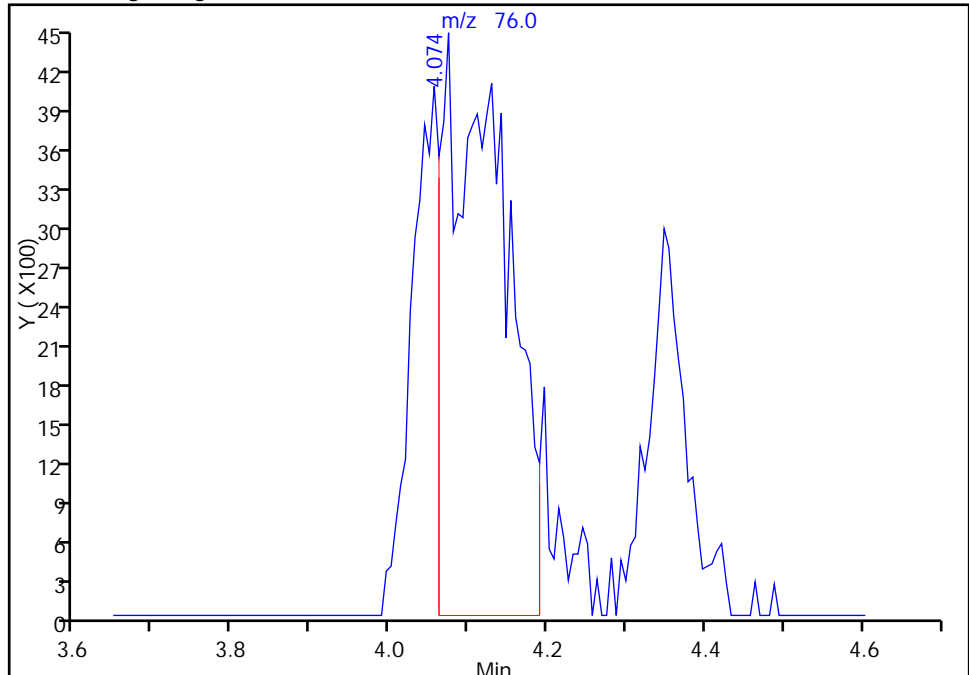
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 25 Carbon disulfide, CAS: 75-15-0

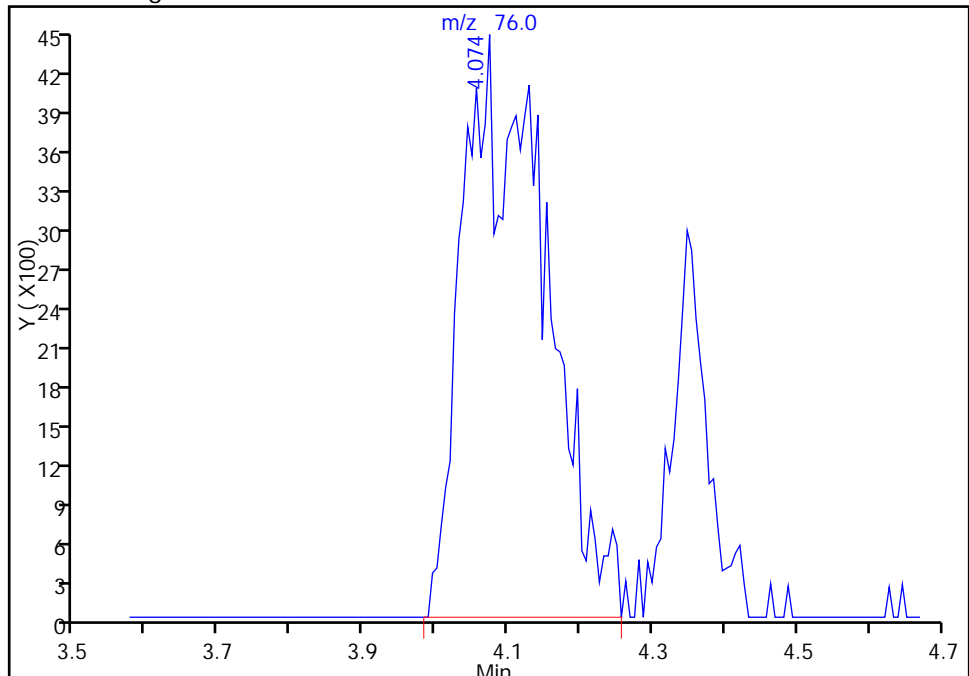
RT: 4.07  
Response: 24556  
Amount: 25.000000

## Processing Integration Results



RT: 4.07  
Response: 35548  
Amount: 22.470847

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

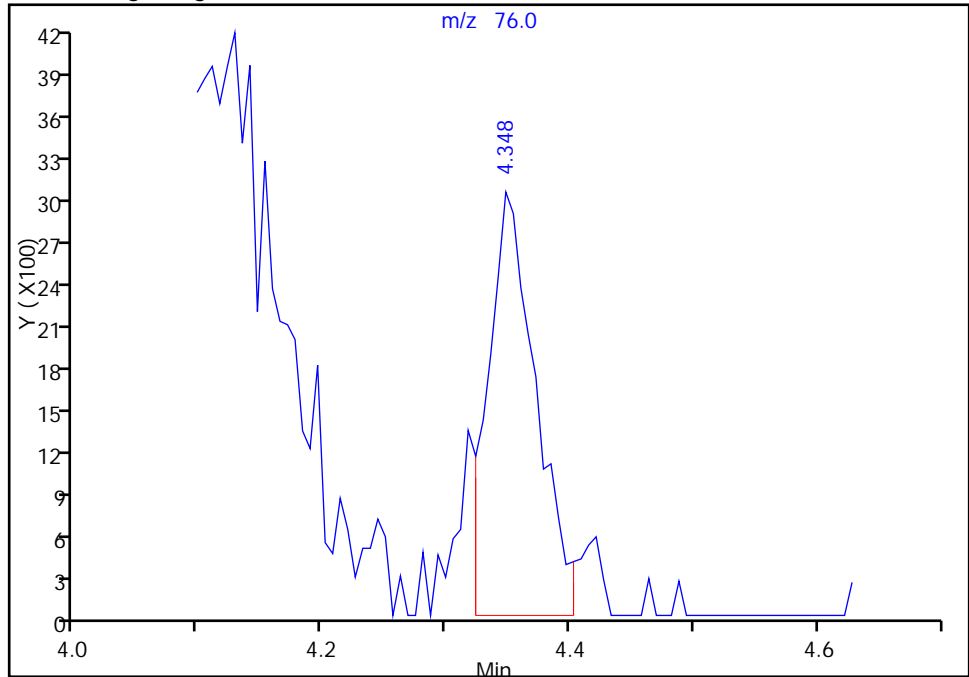
Column: DB-624 (0.18 mm)

Detector: MS SCAN

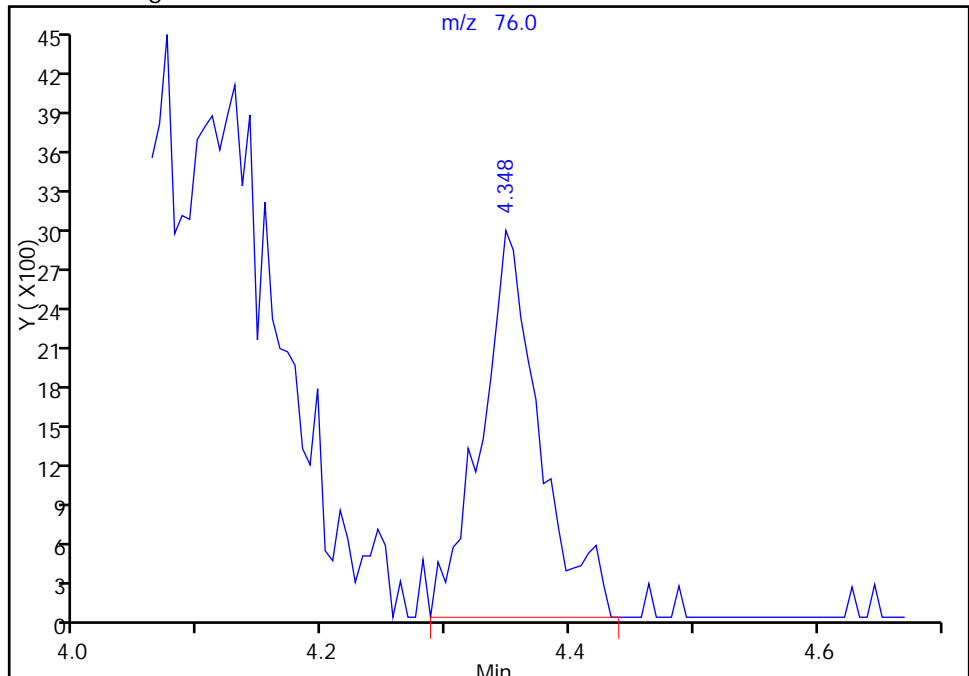
## 28 3-Chloro-1-propene, CAS: 107-05-1

RT: 4.35  
Response: 8040  
Amount: 25.000000

## Processing Integration Results

RT: 4.35  
Response: 9807  
Amount: 22.594019

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

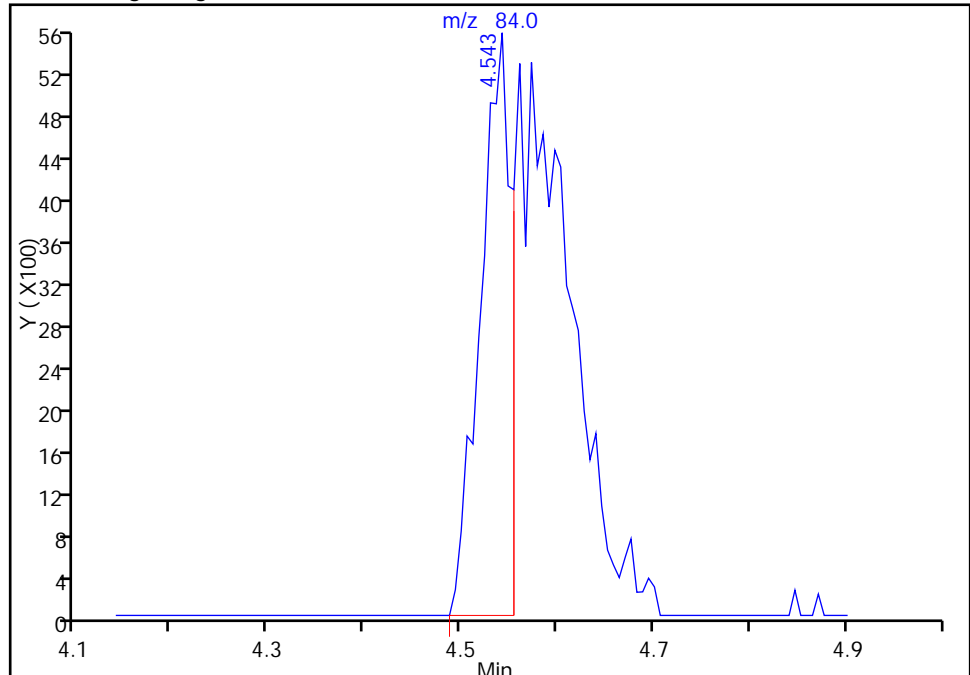
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 30 Methylene Chloride, CAS: 75-09-2

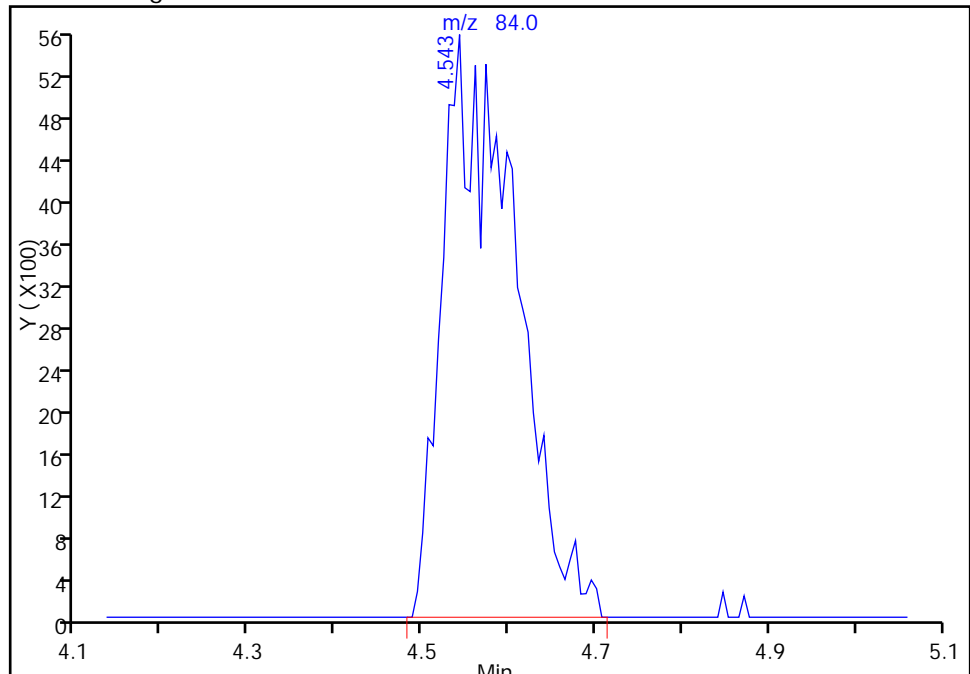
RT: 4.54  
Response: 12294  
Amount: 25.000000

## Processing Integration Results



RT: 4.54  
Response: 31980  
Amount: 26.141622

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

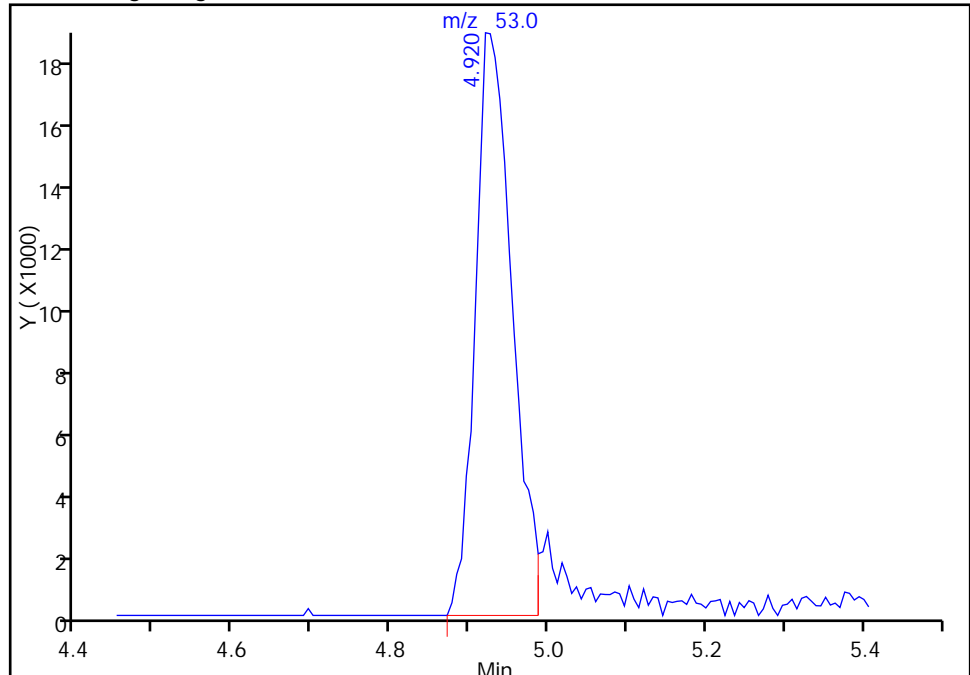
Detector

MS SCAN

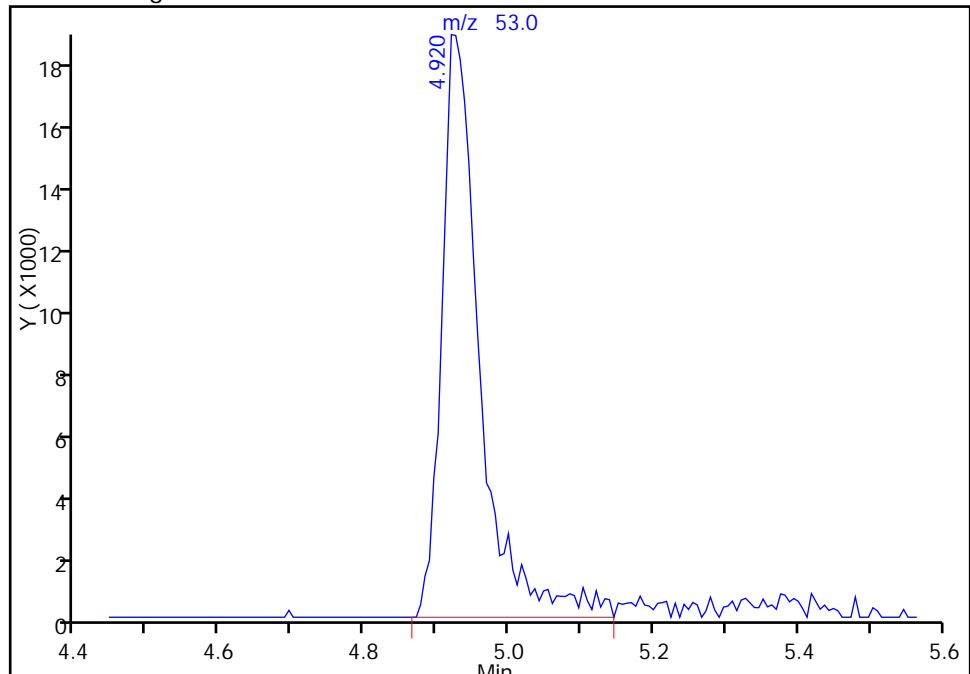
## 32 Acrylonitrile, CAS: 107-13-1

RT: 4.92  
Response: 58455  
Amount: 250.0000

## Processing Integration Results

RT: 4.92  
Response: 66327  
Amount: 209.8037

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

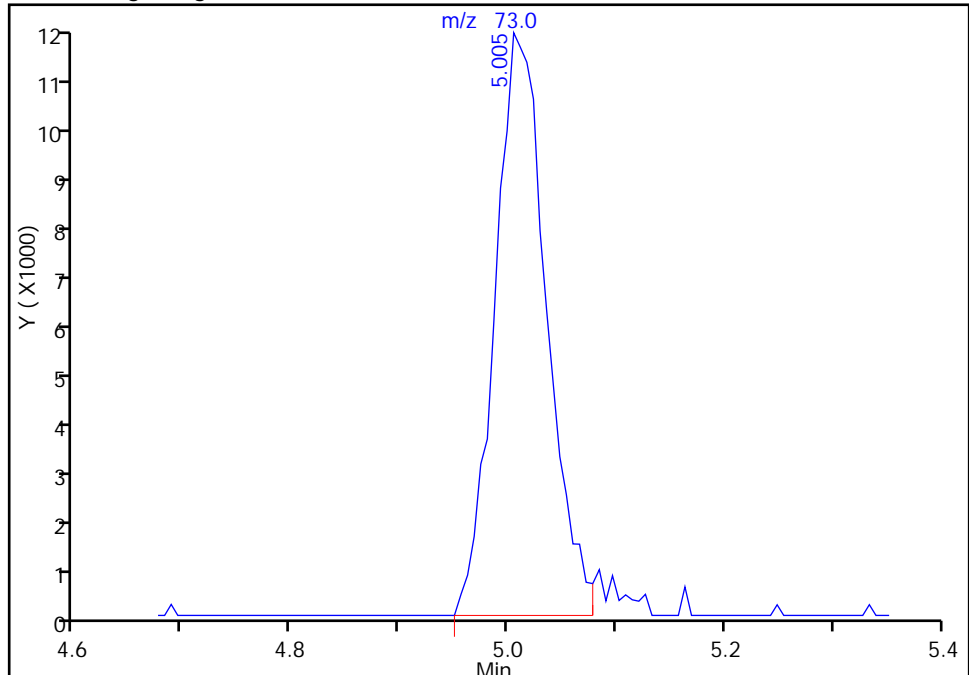
Detector

MS SCAN

## 34 Methyl tert-butyl ether, CAS: 1634-04-4

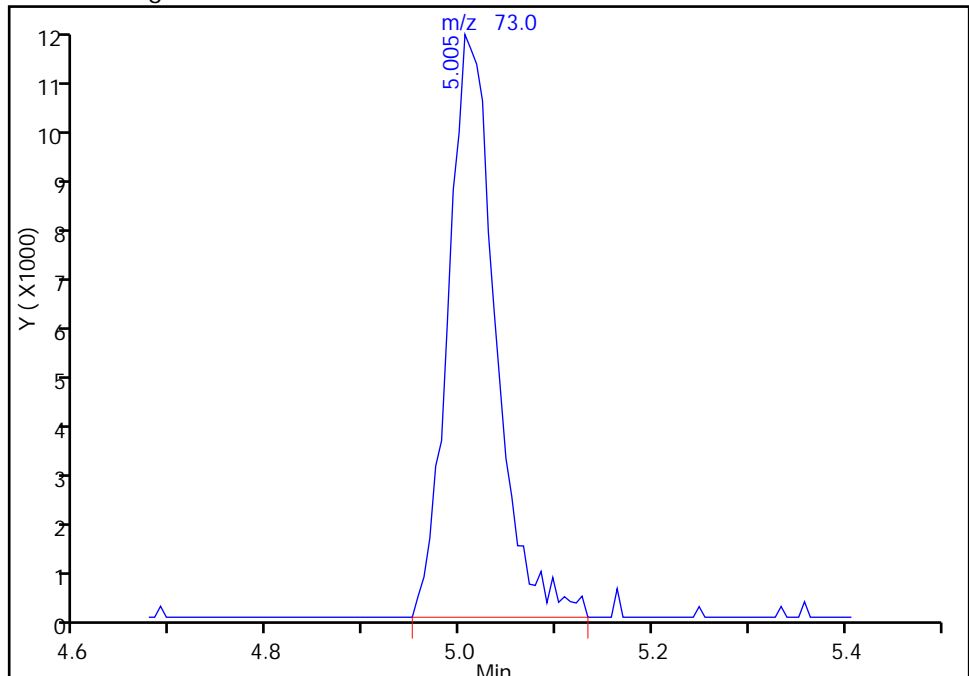
RT: 5.01  
Response: 37155  
Amount: 25.000000

## Processing Integration Results



RT: 5.01  
Response: 38461  
Amount: 23.685555

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

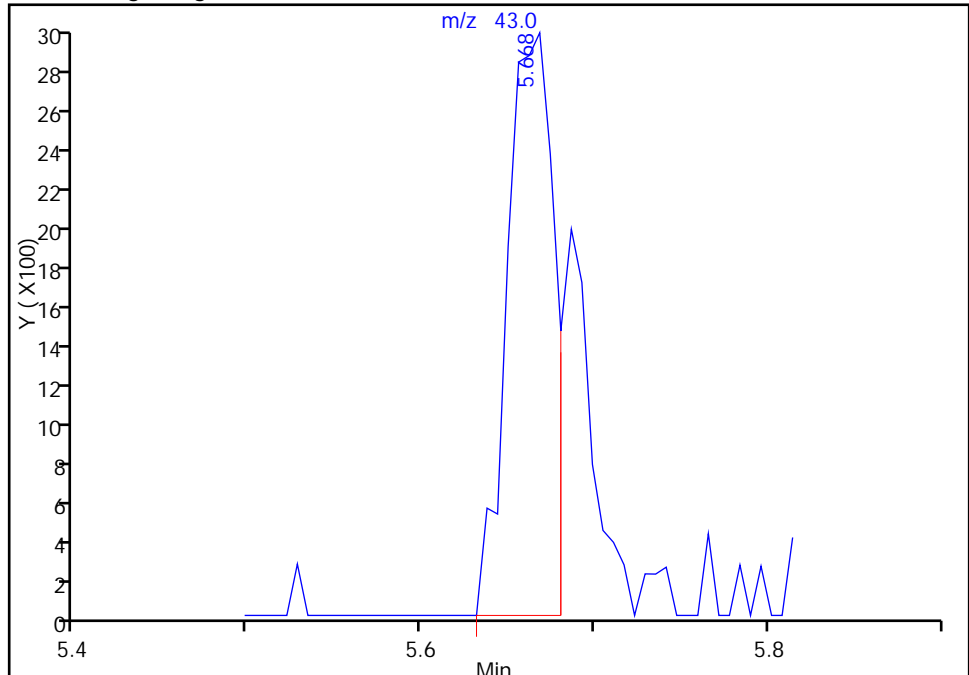
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 37 Vinyl acetate, CAS: 108-05-4

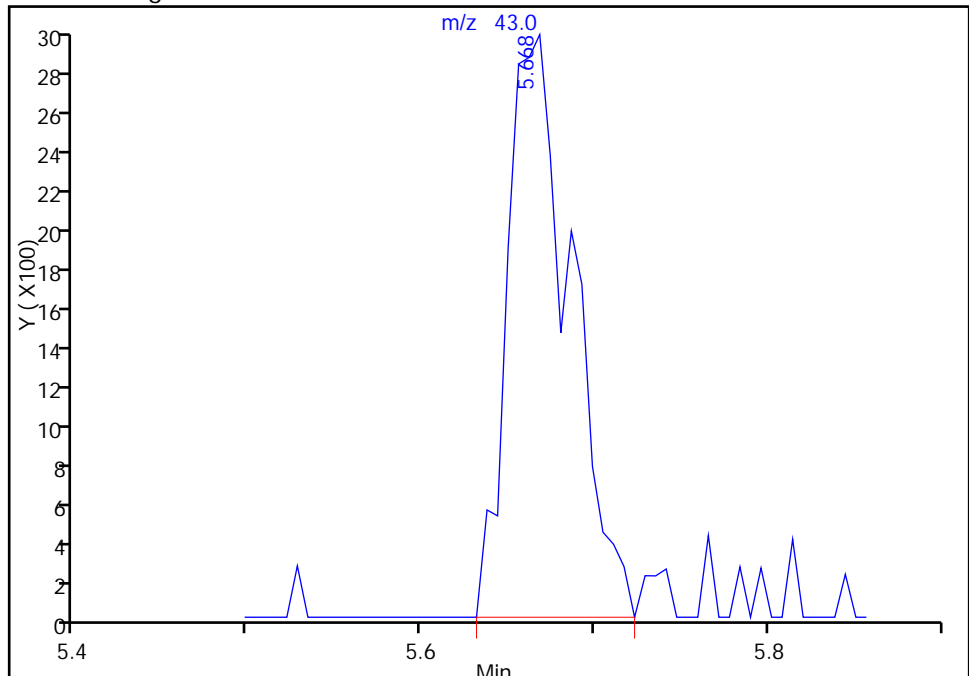
RT: 5.67  
Response: 5598  
Amount: 25.000000

## Processing Integration Results



RT: 5.67  
Response: 7599  
Amount: 20.852525

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

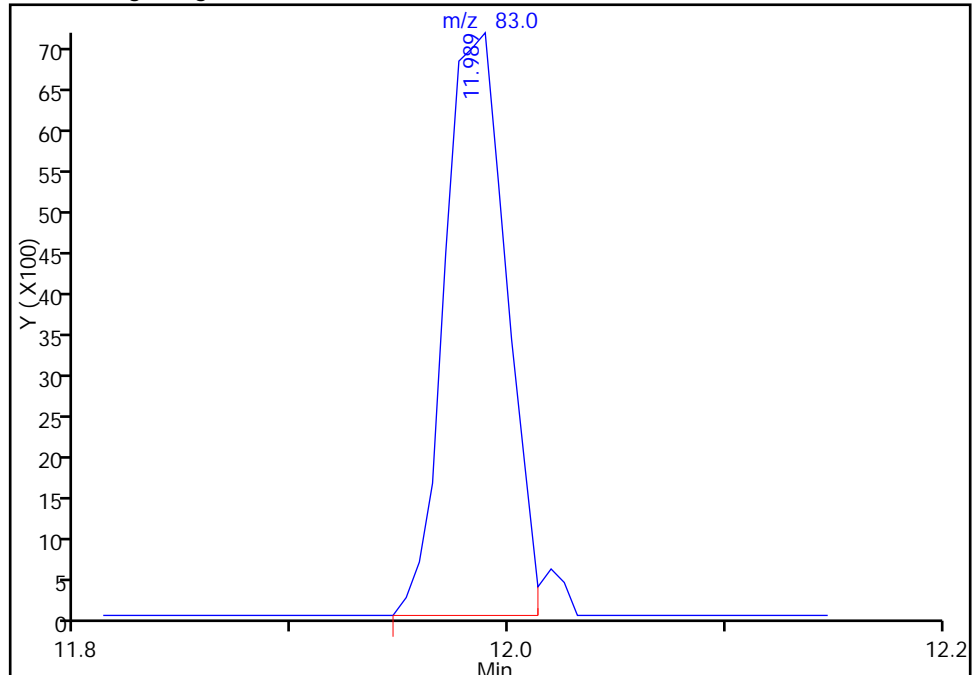
Column: DB-624 (0.18 mm)

Detector: MS SCAN

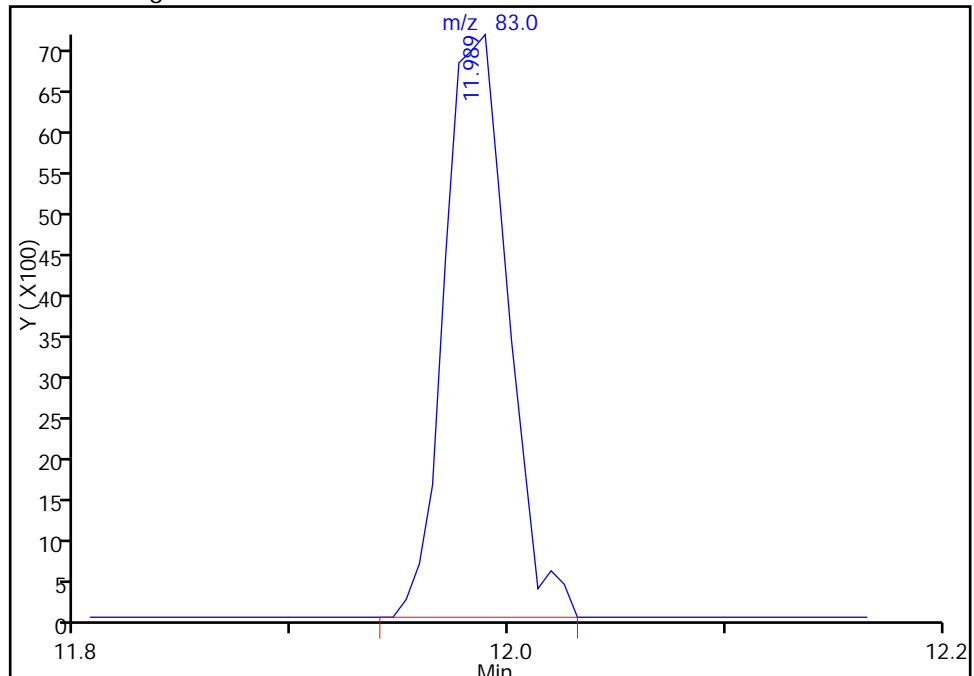
## 93 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

RT: 11.99  
Response: 14075  
Amount: 25.000000

## Processing Integration Results

RT: 11.99  
Response: 14429  
Amount: 21.221993

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K03.D

Injection Date: 22-Sep-2014 11:07:30

Instrument ID: CHHP3

Lims ID: IC VSTD5

Client ID:

Operator ID: 10099

ALS Bottle#:

3

Worklist Smp#: 3

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

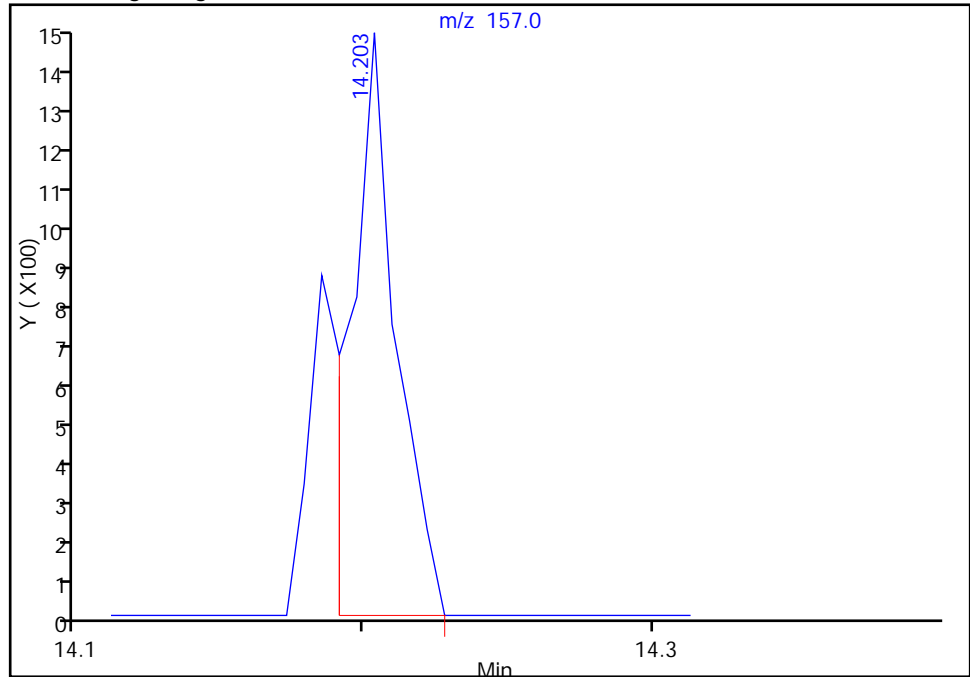
Column: DB-624 (0.18 mm)

Detector: MS SCAN

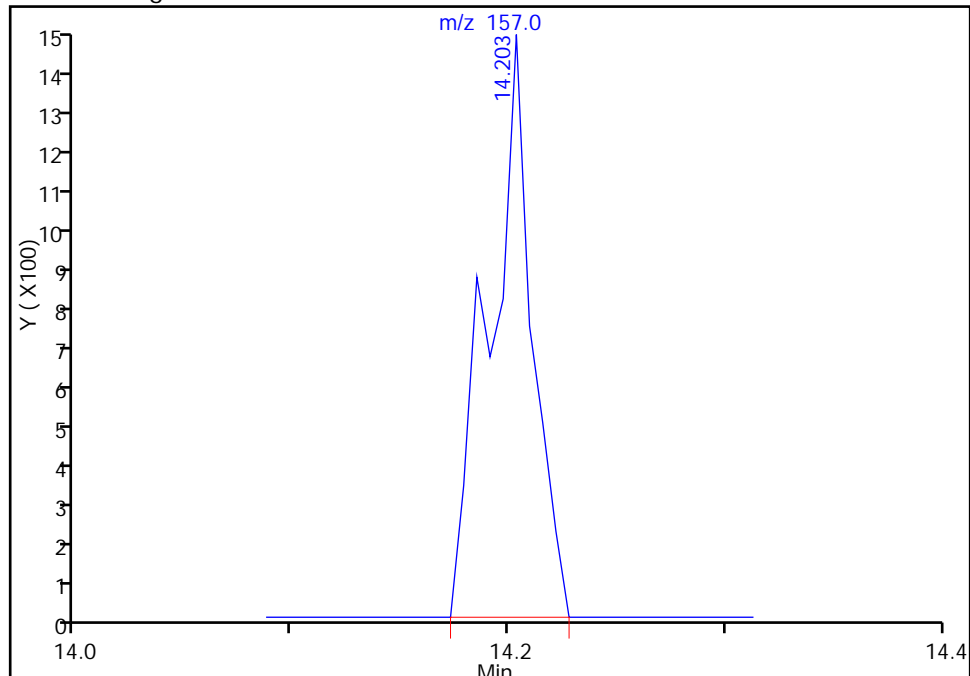
## 112 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

RT: 14.20  
Response: 1528  
Amount: 25.000000

## Processing Integration Results

RT: 14.20  
Response: 1944  
Amount: 19.916049

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:24:53

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D  
 Lims ID: IC VSTD10  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 22-Sep-2014 11:29:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD10  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:47 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 11:29:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.721	4.719	0.002	96	279647	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.617	7.615	0.002	99	517549	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.695	10.693	0.002	86	114198	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.019	13.023	-0.004	96	165894	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.869	6.867	0.002	94	21486	50.0	49.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.234	7.238	-0.004	96	26005	50.0	51.1	
\$ 7 Toluene-d8 (Surr)	98	9.254	9.257	-0.003	93	103928	50.0	54.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.857	11.855	0.002	90	34550	50.0	51.8	
10 Dichlorodifluoromethane	85	1.789	1.799	-0.010	99	23327	50.0	46.8	
11 Chloromethane	50	1.941	1.945	-0.004	98	45327	50.0	48.3	
12 Vinyl chloride	62	2.112	2.103	0.009	95	46489	50.0	49.8	
13 Butadiene	39	2.136	2.134	0.002	84	40174	50.0	47.8	
14 Bromomethane	94	2.471	2.481	-0.010	87	18695	50.0	50.3	
15 Chloroethane	64	2.611	2.639	-0.029	98	24083	50.0	51.6	M
16 Dichlorofluoromethane	67	2.921	2.931	-0.010	97	49131	50.0	50.8	M
17 Trichlorofluoromethane	101	2.957	2.992	-0.035	12	27626	50.0	45.5	M
19 Ethyl ether	59	3.432	3.430	0.002	95	27647	50.0	48.5	M
20 Acrolein	56	3.590	3.588	0.002	98	54298	625.0	741.3	
21 1,1-Dichloroethene	96	3.766	3.758	0.008	97	24711	50.0	49.5	
22 1,1,2-Trichloro-1,2,2-trif	101	3.803	3.807	-0.004	91	21697	50.0	48.1	M
23 Acetone	43	3.876	3.861	0.015	99	19118	50.0	61.8	
24 Iodomethane	142	3.967	4.007	-0.040	96	32543	50.0	48.0	M
25 Carbon disulfide	76	4.125	4.074	0.051	86	56672	50.0	43.0	M
28 3-Chloro-1-propene	76	4.350	4.348	0.002	95	15874	50.0	43.9	
29 Methyl acetate	43	4.429	4.433	-0.004	99	159430	250.0	278.8	
30 Methylene Chloride	84	4.563	4.543	0.020	96	37773	50.0	47.1	M
31 2-Methyl-2-propanol	59	4.849	4.841	0.008	100	33362	500.0	456.4	
32 Acrylonitrile	53	4.922	4.920	0.002	98	146972	500.0	557.7	
33 trans-1,2-Dichloroethene	96	4.953	4.963	-0.010	95	26950	50.0	50.3	M
34 Methyl tert-butyl ether	73	5.007	5.005	0.002	96	67567	50.0	49.9	
35 Hexane	57	5.391	5.388	0.003	93	57981	50.0	49.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.543	5.553	-0.010	95	50734	50.0	47.4	
37 Vinyl acetate	43	5.664	5.668	-0.004	96	13203	50.0	43.5	
41 2,2-Dichloropropane	77	6.297	6.295	0.002	50	18927	50.0	46.8	
42 cis-1,2-Dichloroethene	96	6.291	6.295	-0.004	84	29454	50.0	49.2	
43 2-Butanone (MEK)	43	6.334	6.337	-0.003	99	22376	50.0	55.2	
47 Chlorobromomethane	128	6.583	6.587	-0.004	88	11984	50.0	49.3	
48 Tetrahydrofuran	42	6.650	6.648	0.002	96	25145	100.0	106.5	
49 Chloroform	83	6.693	6.684	0.008	95	40580	50.0	48.2	
50 1,1,1-Trichloroethane	97	6.893	6.897	-0.004	98	27517	50.0	46.8	
51 Cyclohexane	56	6.960	6.964	-0.004	89	59860	50.0	47.1	
52 1,1-Dichloropropene	75	7.088	7.092	-0.004	94	32939	50.0	47.8	
53 Carbon tetrachloride	117	7.088	7.092	-0.004	69	22079	50.0	46.9	
54 Isobutyl alcohol	41	7.264	7.256	0.008	95	30374	1250.0	1389.6	
55 Benzene	78	7.307	7.311	-0.004	97	112412	50.0	50.5	
56 1,2-Dichloroethane	62	7.319	7.329	-0.010	57	30703	50.0	48.1	
59 n-Heptane	43	7.635	7.639	-0.004	94	45803	50.0	42.6	
60 Trichloroethene	130	8.013	8.010	0.003	93	27517	50.0	51.7	
63 Methylcyclohexane	83	8.219	8.223	-0.004	95	48097	50.0	46.8	
64 1,2-Dichloropropane	63	8.238	8.242	-0.004	97	29710	50.0	46.2	
65 Dibromomethane	93	8.353	8.351	0.002	96	14609	50.0	52.9	
67 1,4-Dioxane	88	8.378	8.388	-0.010	85	5551	1000.0	1093.0	
68 Dichlorobromomethane	83	8.524	8.521	0.003	98	24882	50.0	42.4	
71 cis-1,3-Dichloropropene	75	8.980	8.978	0.002	94	36345	50.0	44.2	
72 4-Methyl-2-pentanone (MIBK)	43	9.132	9.136	-0.004	95	31090	50.0	50.1	
73 Toluene	91	9.327	9.324	0.003	97	110547	50.0	50.6	
74 trans-1,3-Dichloropropene	75	9.533	9.531	0.002	92	28861	50.0	45.5	
75 Ethyl methacrylate	69	9.631	9.629	0.002	94	30368	50.0	47.0	
76 1,1,2-Trichloroethane	97	9.716	9.720	-0.004	89	21353	50.0	49.0	
77 Tetrachloroethene	164	9.874	9.884	-0.010	76	20218	50.0	50.7	
78 1,3-Dichloropropane	76	9.886	9.884	0.002	94	39432	50.0	50.3	
79 2-Hexanone	43	9.965	9.957	0.008	97	29843	50.0	55.2	
81 Chlorodibromomethane	129	10.105	10.115	-0.010	91	14987	50.0	42.4	
82 Ethylene Dibromide	107	10.221	10.231	-0.010	98	20133	50.0	48.9	
83 Chlorobenzene	112	10.720	10.724	-0.004	95	70978	50.0	52.1	
85 1,1,1,2-Tetrachloroethane	131	10.793	10.797	-0.004	92	17512	50.0	44.0	
86 Ethylbenzene	106	10.829	10.833	-0.004	98	37902	50.0	48.8	
87 m-Xylene & p-Xylene	106	10.945	10.949	-0.004	99	46471	50.0	49.3	
88 o-Xylene	106	11.340	11.344	-0.004	96	44275	50.0	47.7	
89 Styrene	104	11.352	11.350	0.002	93	78411	50.0	50.0	
90 Bromoform	173	11.535	11.533	0.002	95	9556	50.0	44.3	
91 Isopropylbenzene	105	11.711	11.709	0.002	95	117783	50.0	51.1	
93 1,1,2,2-Tetrachloroethane	83	11.985	11.989	-0.004	94	26811	50.0	47.7	
94 Bromobenzene	156	12.009	12.019	-0.010	94	26137	50.0	47.8	
95 1,2,3-Trichloropropane	110	12.034	12.032	0.002	82	9144	50.0	52.7	
96 trans-1,4-Dichloro-2-buten	53	12.040	12.044	-0.004	71	9223	50.0	44.7	
97 N-Propylbenzene	120	12.125	12.129	-0.004	99	30996	50.0	45.6	
98 2-Chlorotoluene	126	12.210	12.214	-0.004	96	25294	50.0	46.4	
99 1,3,5-Trimethylbenzene	105	12.289	12.293	-0.004	95	88962	50.0	46.8	
100 4-Chlorotoluene	126	12.320	12.311	0.009	97	28655	50.0	49.0	
101 tert-Butylbenzene	119	12.624	12.628	-0.004	91	78766	50.0	47.5	
103 1,2,4-Trimethylbenzene	105	12.673	12.670	0.003	95	95873	50.0	49.4	
104 sec-Butylbenzene	105	12.843	12.847	-0.004	93	117339	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.958	12.956	0.002	96	52922	50.0	50.1	
106 4-Isopropyltoluene	119	12.989	12.987	0.002	98	97514	50.0	49.1	
107 1,4-Dichlorobenzene	146	13.050	13.041	0.009	97	51485	50.0	49.6	
110 n-Butylbenzene	91	13.396	13.400	-0.004	98	90907	50.0	46.7	
111 1,2-Dichlorobenzene	146	13.427	13.425	0.002	98	47228	50.0	49.2	
112 1,2-Dibromo-3-Chloropropan	157	14.200	14.203	-0.003	77	3760	50.0	42.7	M
114 1,2,4-Trichlorobenzene	180	15.045	15.049	-0.004	91	24579	50.0	46.4	
115 Hexachlorobutadiene	225	15.228	15.225	0.003	94	10364	50.0	42.9	
116 Naphthalene	128	15.307	15.304	0.003	96	65414	50.0	49.8	
117 1,2,3-Trichlorobenzene	180	15.574	15.572	0.002	95	20184	50.0	45.6	
S 129 Xylenes, Total	106				0		100.0	97.1	
S 130 1,2-Dichloroethene, Total	96				0		100.0	99.5	
S 131 1,3-Dichloropropene, Total	1				0		100.0	89.7	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR_00021	Amount Added: 2.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 25.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 2.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD10

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

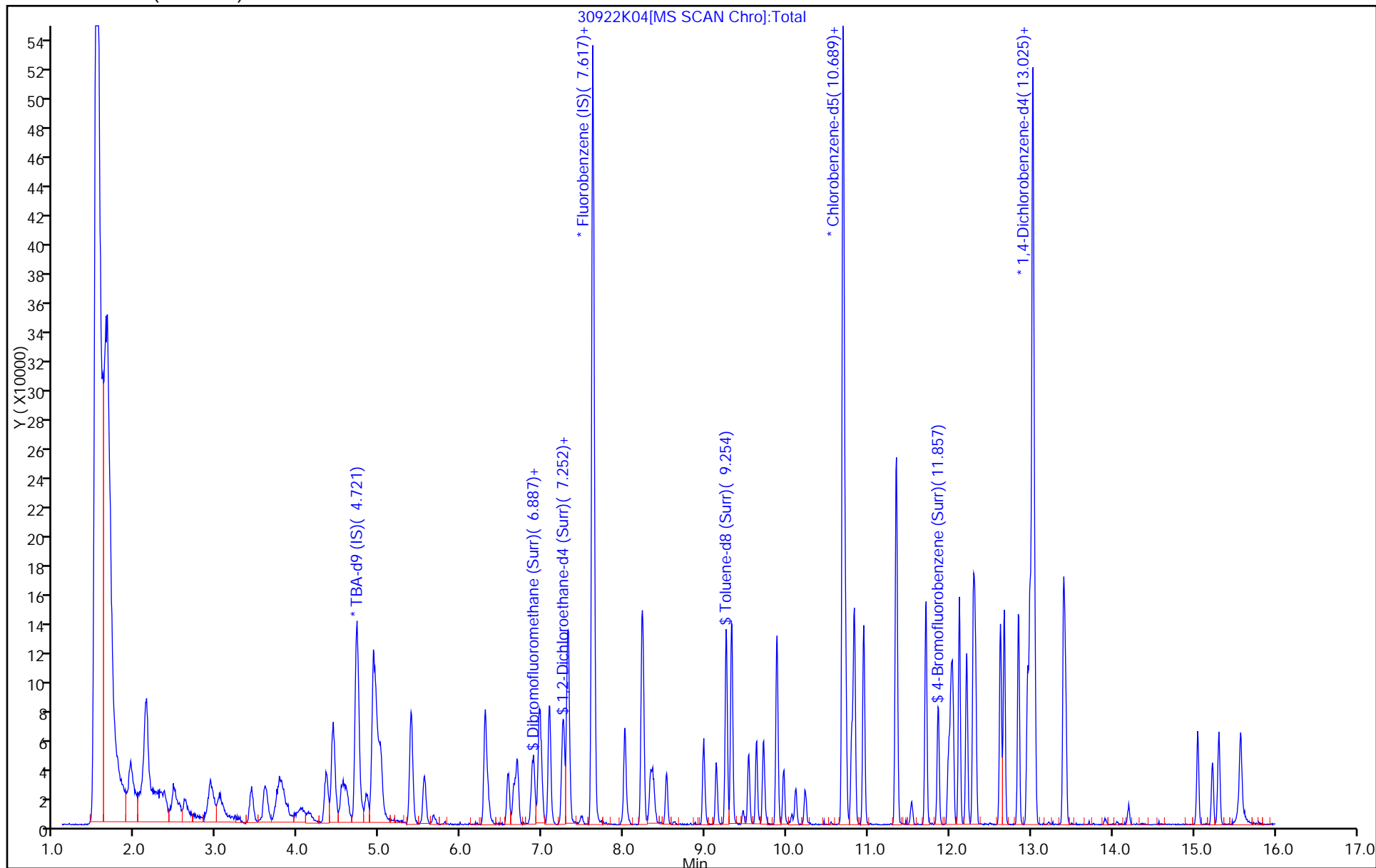
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

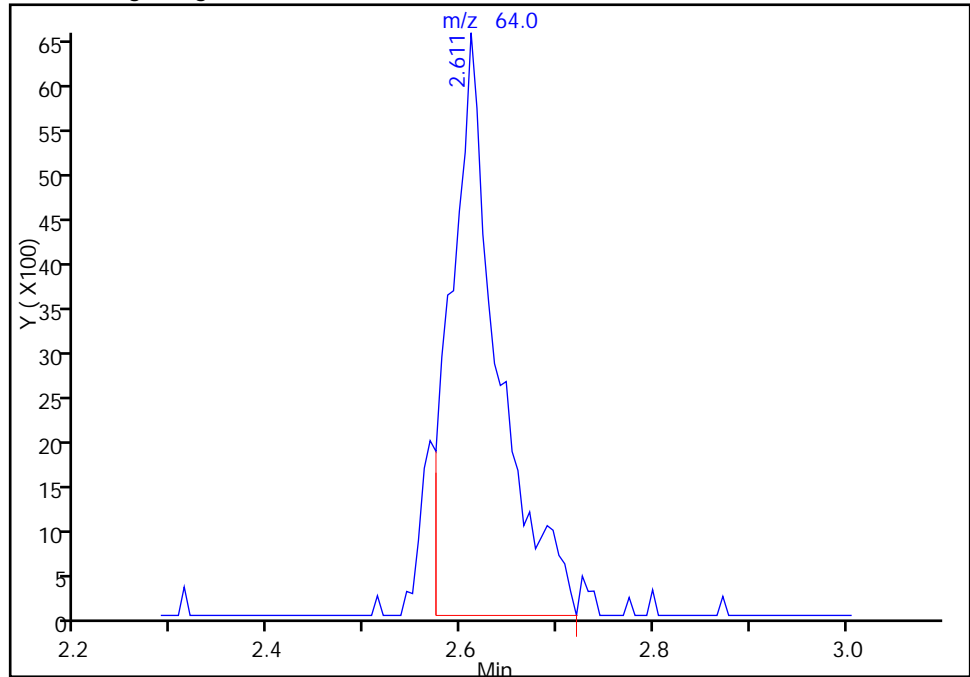
Column: DB-624 (0.18 mm)

Detector: MS SCAN

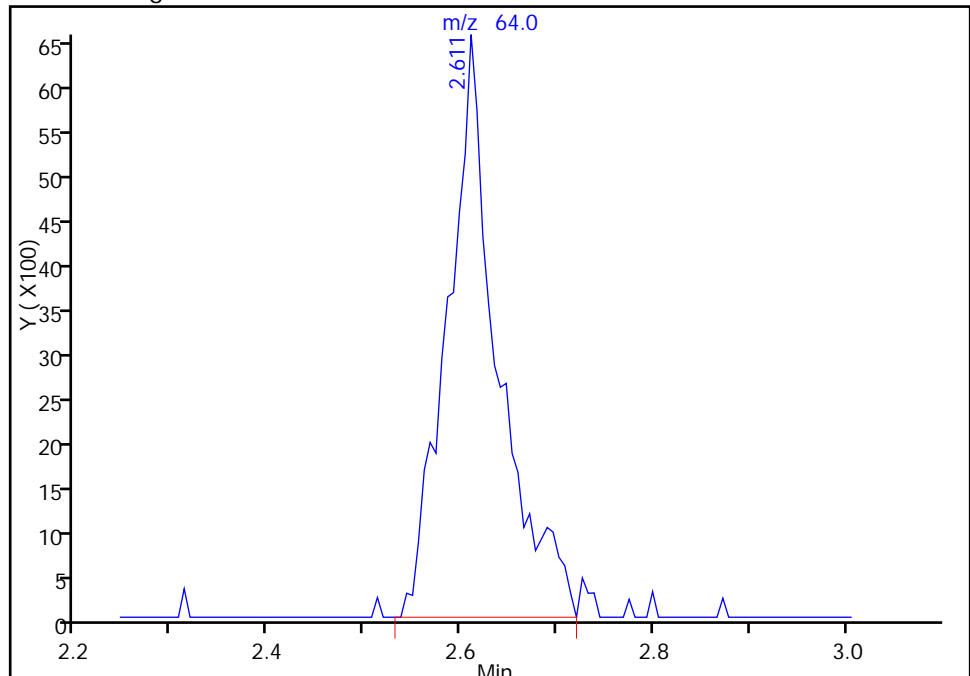
## 15 Chloroethane, CAS: 75-00-3

RT: 2.61  
Response: 22257  
Amount: 49.993075

## Processing Integration Results

RT: 2.61  
Response: 24083  
Amount: 51.625421

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

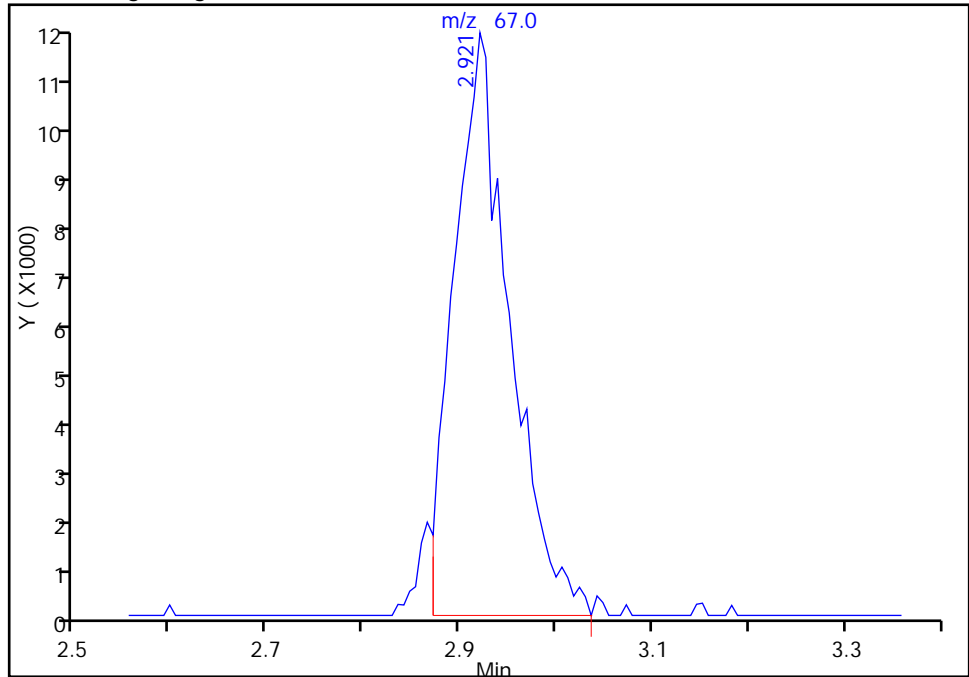
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 16 Dichlorofluoromethane, CAS: 75-43-4

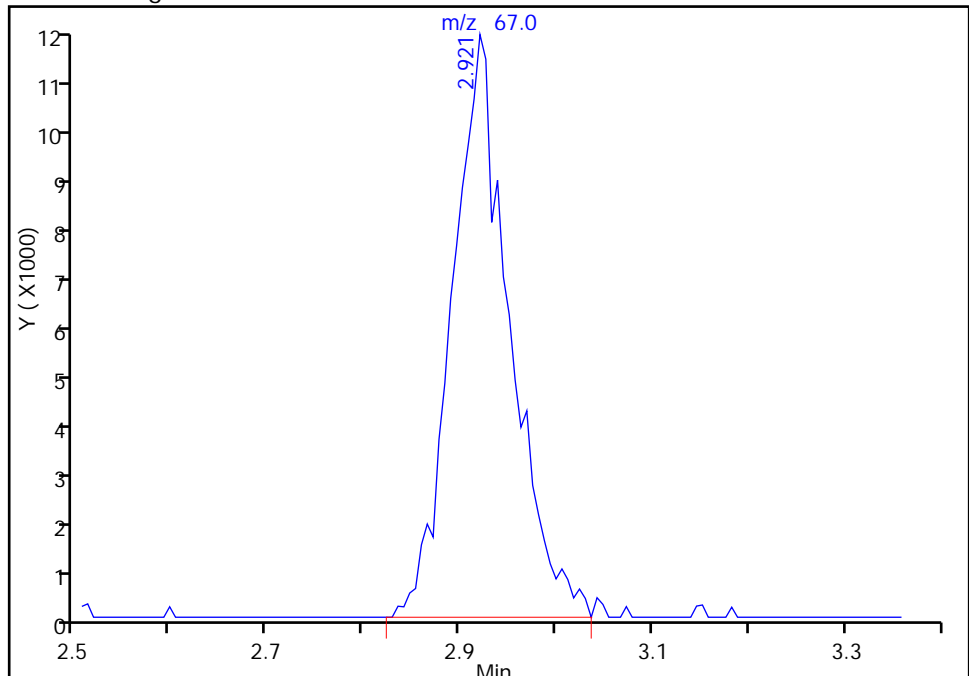
RT: 2.92  
Response: 47357  
Amount: 48.900553

## Processing Integration Results



RT: 2.92  
Response: 49131  
Amount: 50.808317

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

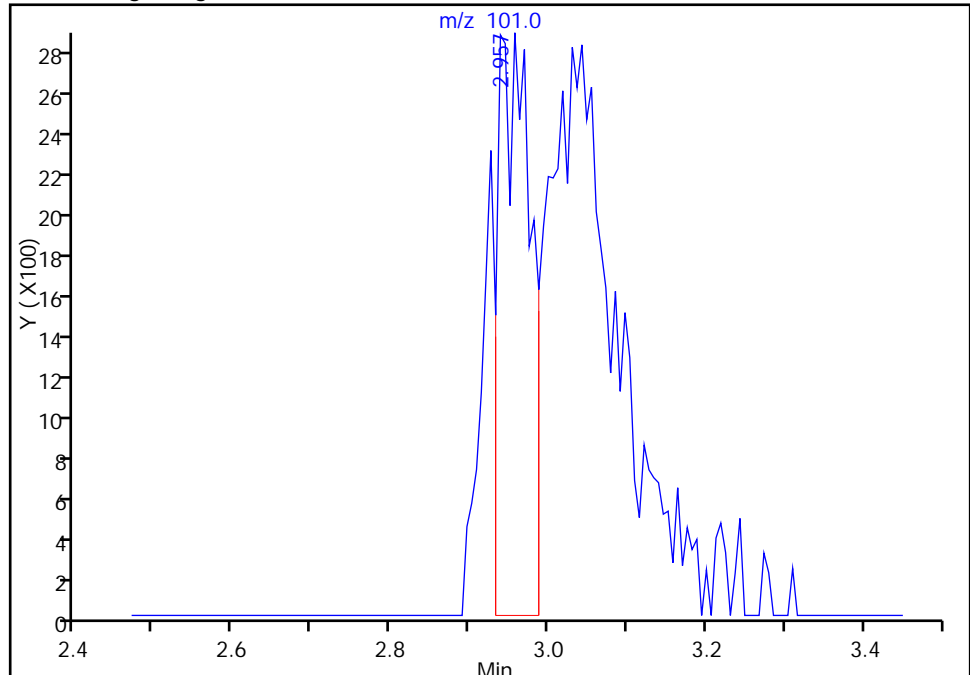
Detector

MS SCAN

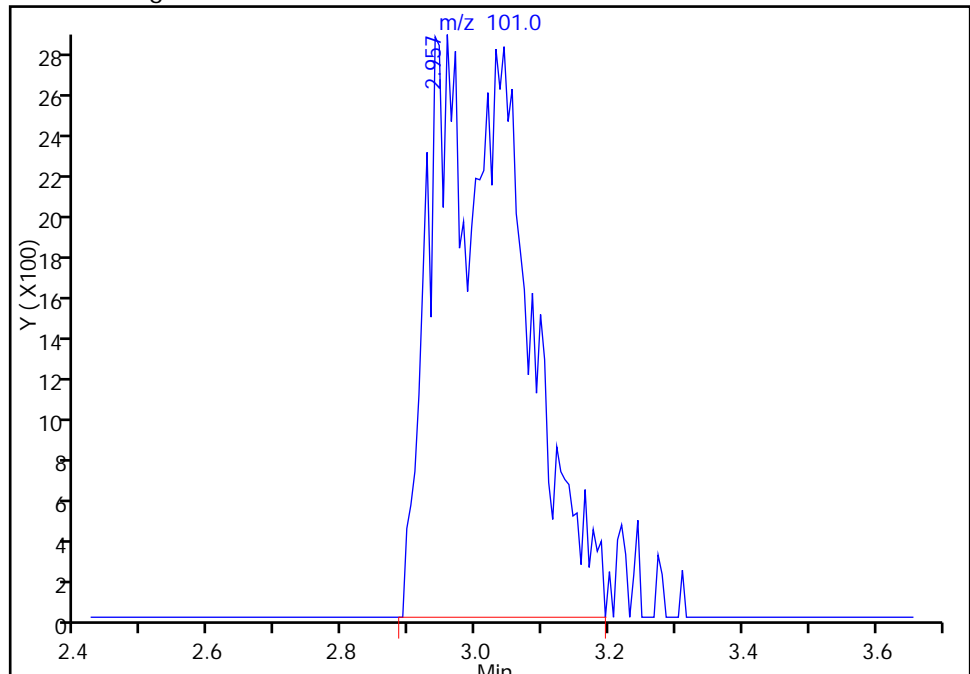
## 17 Trichlorofluoromethane, CAS: 75-69-4

RT: 2.96  
Response: 8319  
Amount: 22.652503

## Processing Integration Results

RT: 2.96  
Response: 27626  
Amount: 45.470148

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

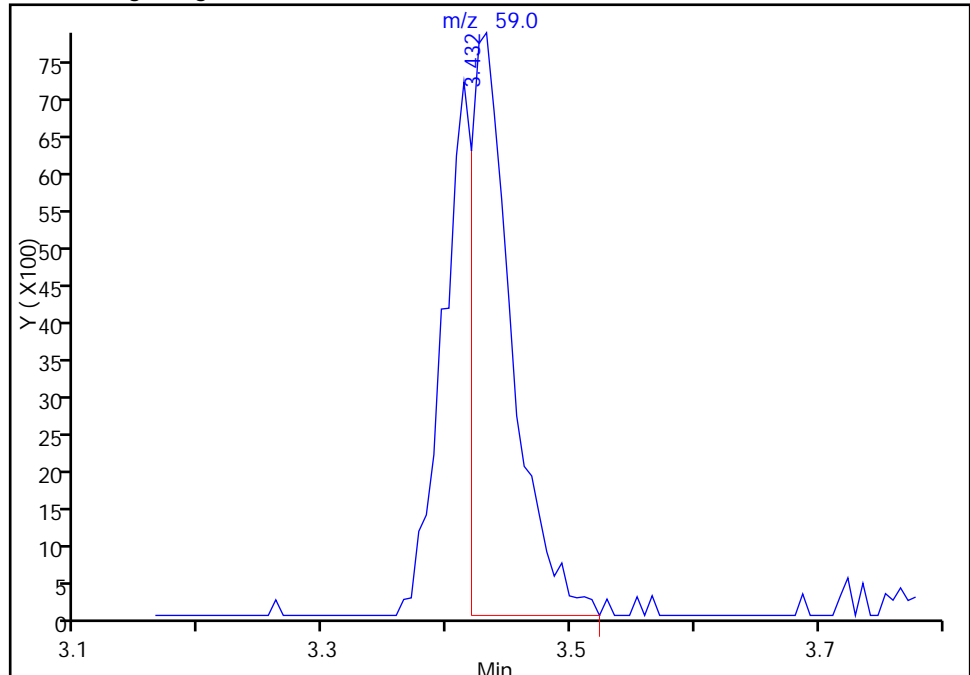
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 19 Ethyl ether, CAS: 60-29-7

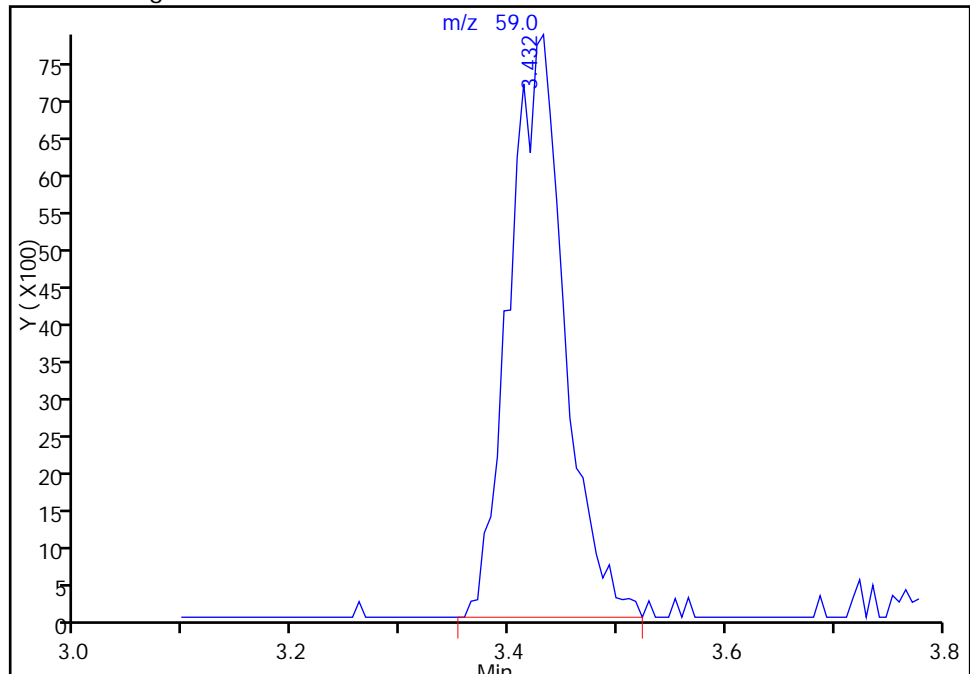
RT: 3.43  
Response: 17940  
Amount: 37.449646

## Processing Integration Results



RT: 3.43  
Response: 27647  
Amount: 48.459692

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

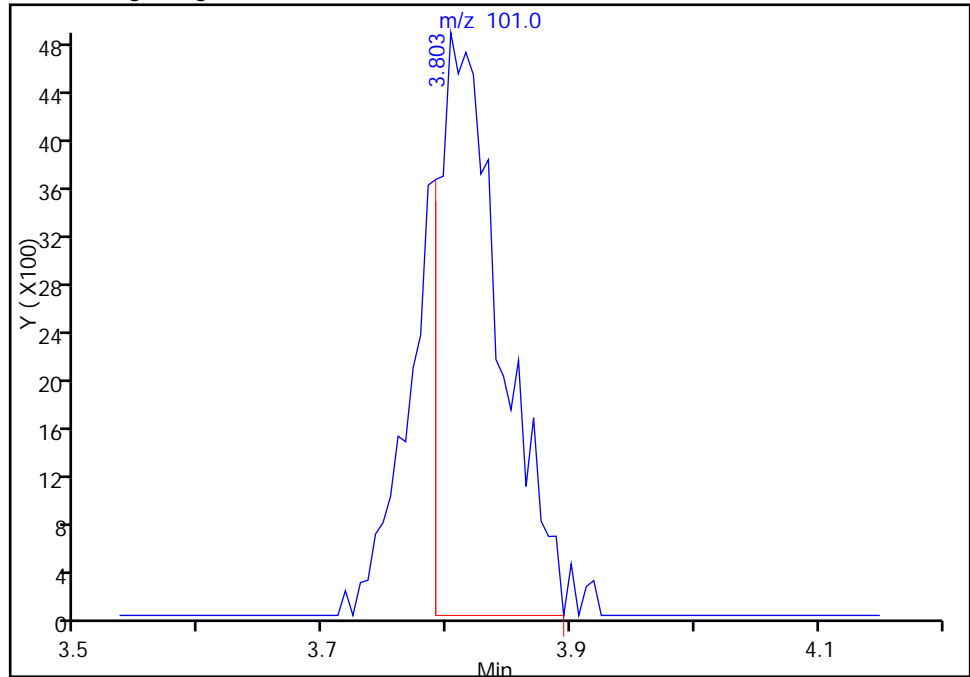
Column: DB-624 (0.18 mm)

Detector: MS SCAN

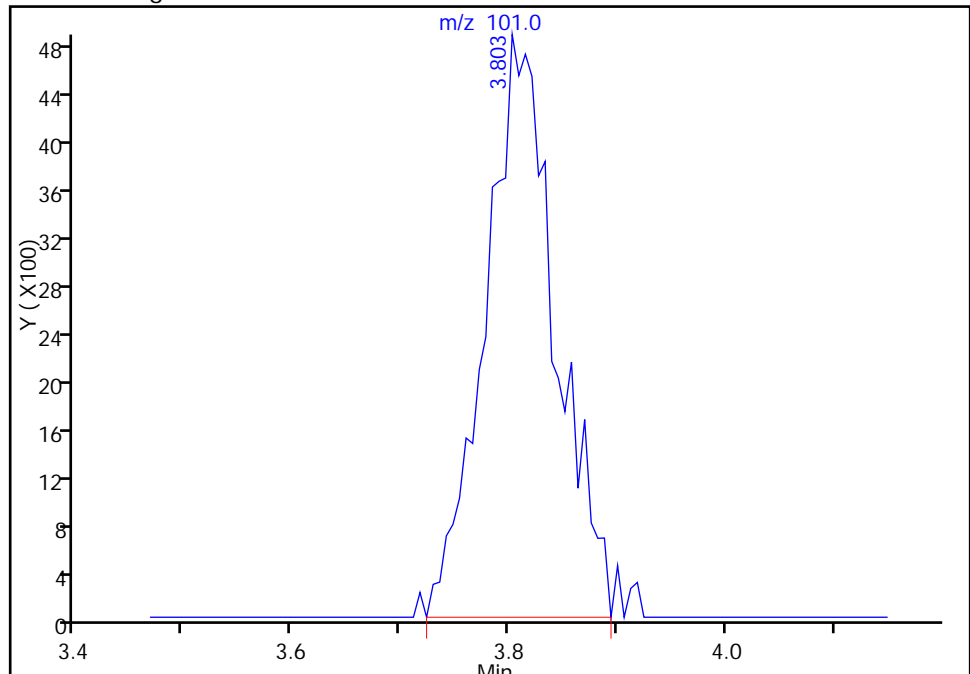
## 22 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

RT: 3.80  
Response: 16662  
Amount: 42.100133

## Processing Integration Results

RT: 3.80  
Response: 21697  
Amount: 48.082793

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

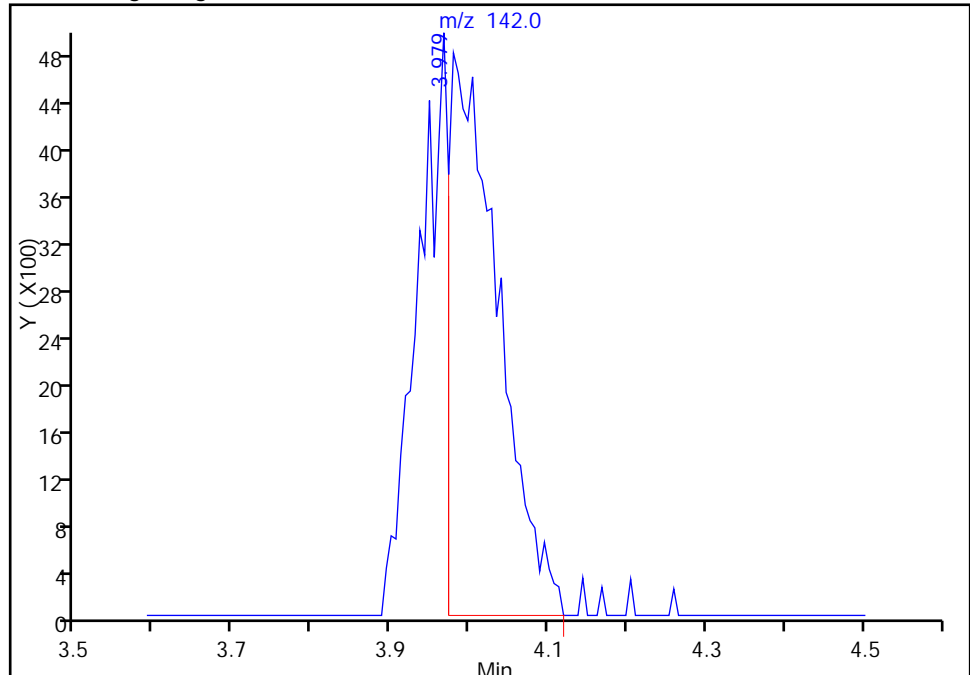
Column: DB-624 (0.18 mm)

Detector: MS SCAN

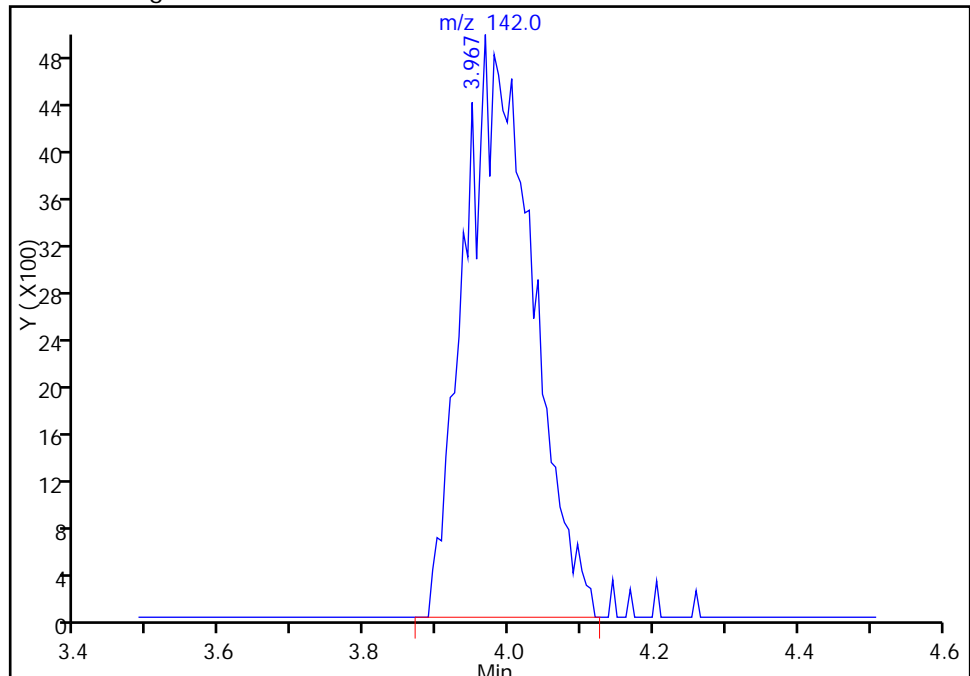
## 24 Iodomethane, CAS: 74-88-4

RT: 3.98  
Response: 20796  
Amount: 37.453126

## Processing Integration Results

RT: 3.97  
Response: 32543  
Amount: 48.023037

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

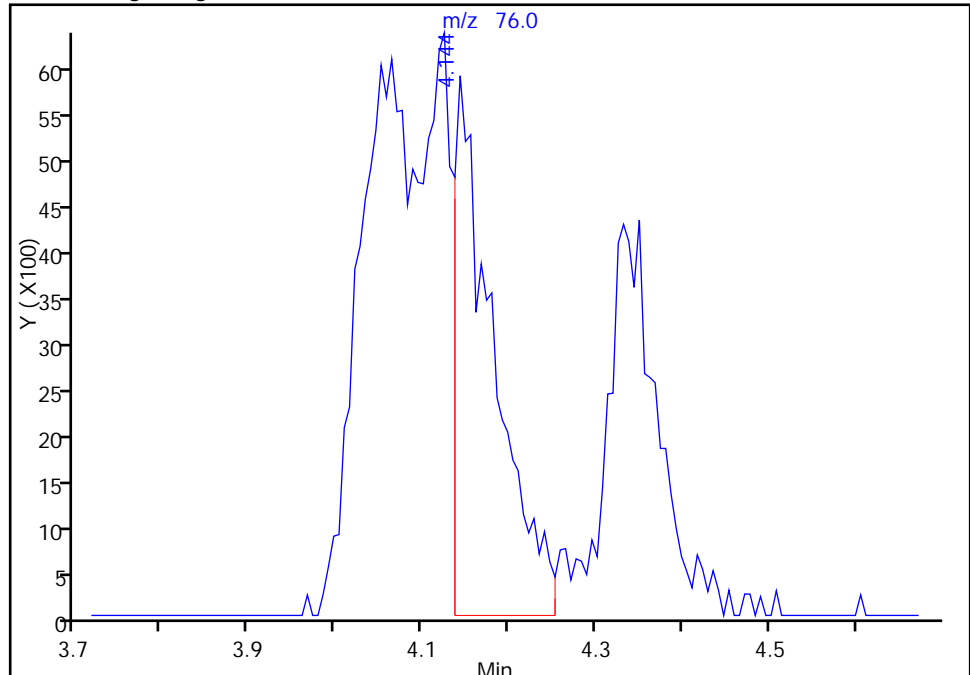
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 25 Carbon disulfide, CAS: 75-15-0

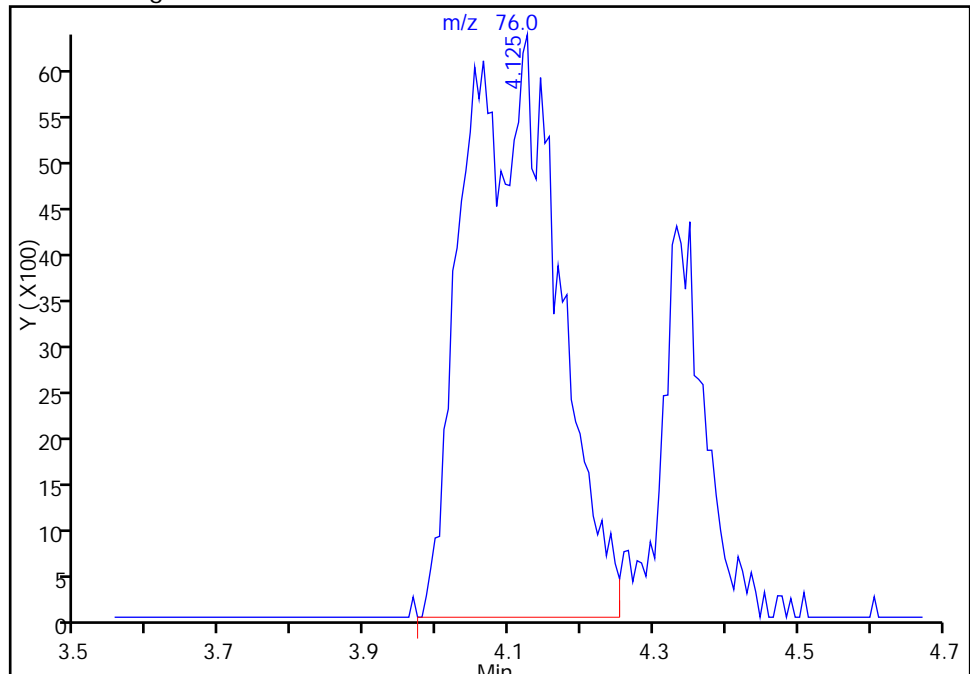
RT: 4.14  
Response: 18448  
Amount: 23.737588

## Processing Integration Results



RT: 4.13  
Response: 56672  
Amount: 42.972907

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

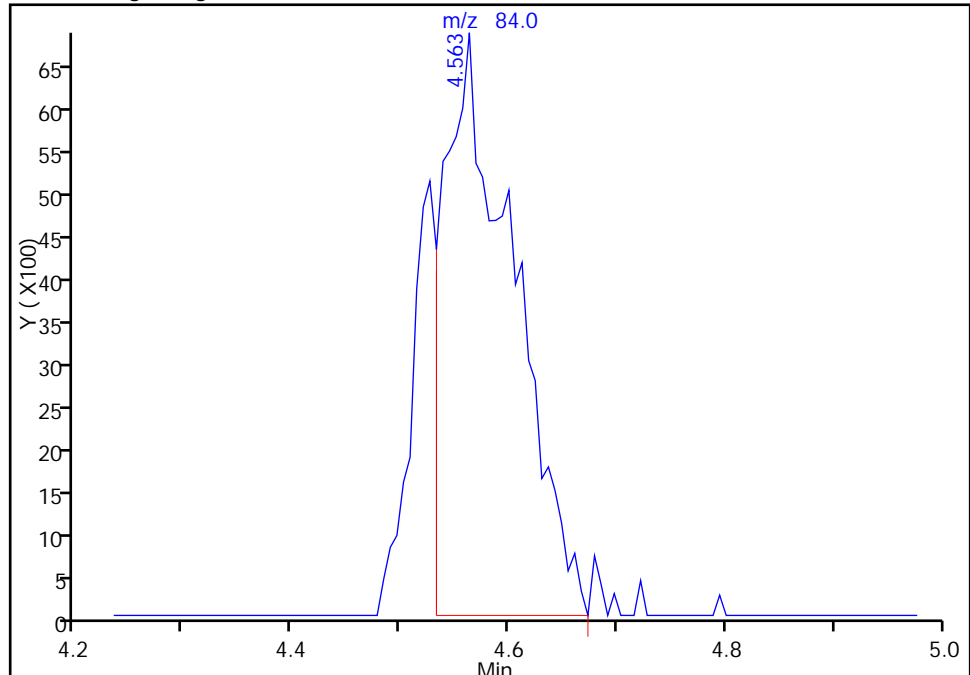
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D  
Injection Date: 22-Sep-2014 11:29:30 Instrument ID: CHHP3  
Lims ID: IC VSTD10  
Client ID:  
Operator ID: 10099 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_S\_CHHP3 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

## 30 Methylene Chloride, CAS: 75-09-2

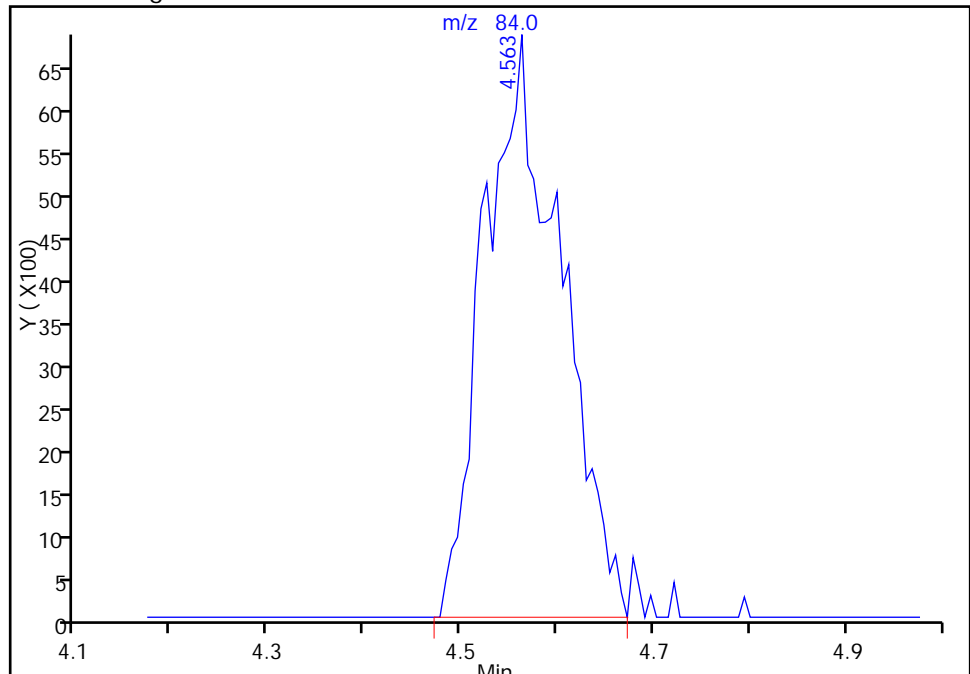
RT: 4.56  
Response: 30719  
Amount: 50.000000

## Processing Integration Results



RT: 4.56  
Response: 37773  
Amount: 47.081576

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

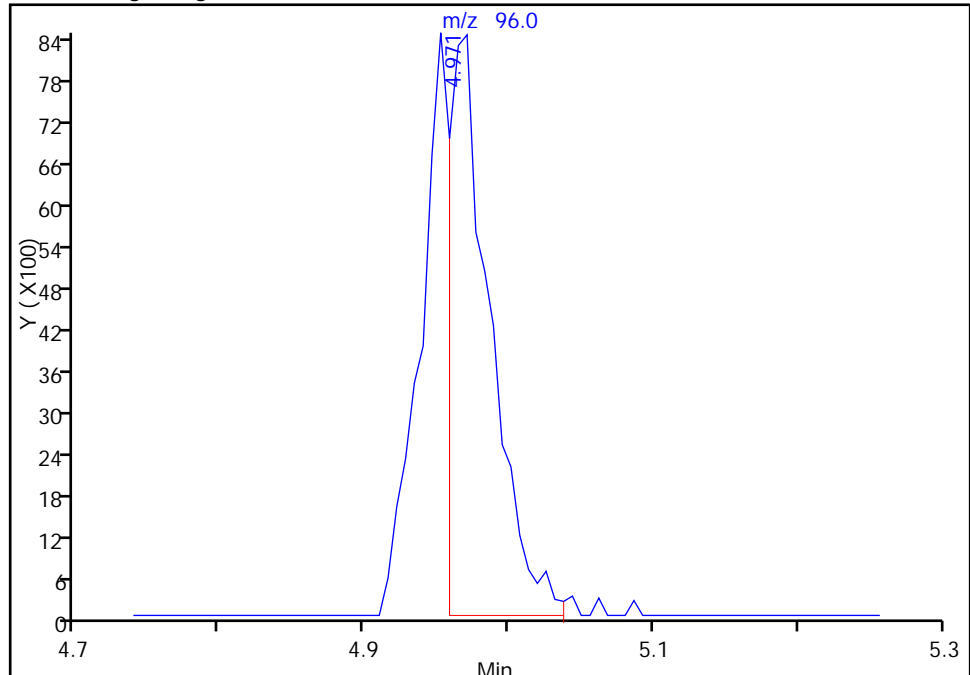
Column: DB-624 (0.18 mm)

Detector

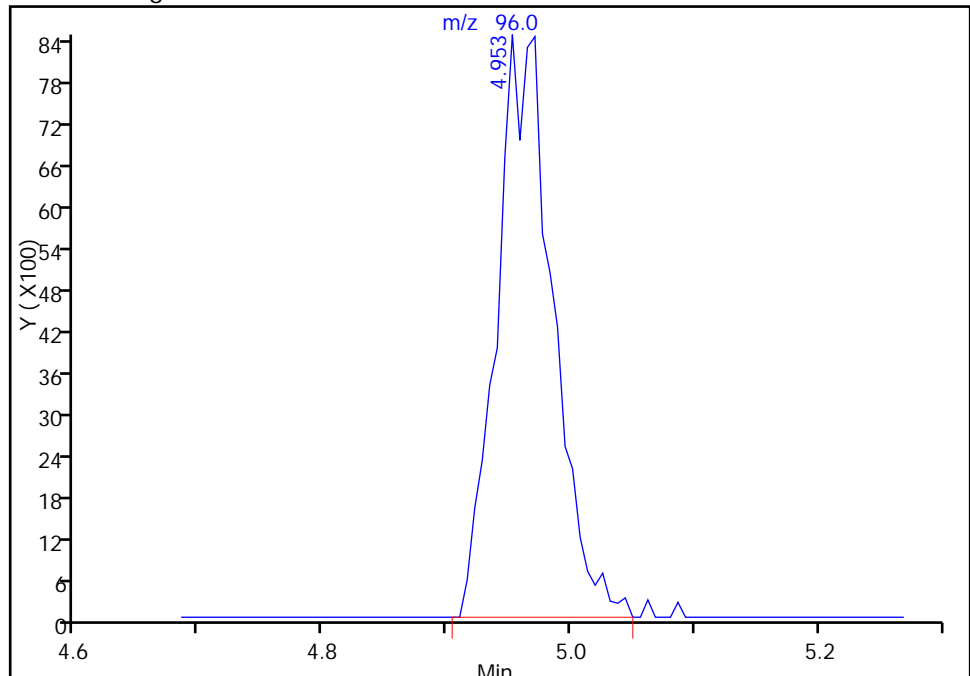
MS SCAN

**33 trans-1,2-Dichloroethene, CAS: 156-60-5**RT: 4.97  
Response: 17008  
Amount: 39.631058

## Processing Integration Results

RT: 4.95  
Response: 26950  
Amount: 50.256311

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K04.D

Injection Date: 22-Sep-2014 11:29:30

Instrument ID: CHHP3

Lims ID: IC VSTD10

Client ID:

Operator ID: 10099

ALS Bottle#:

4

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

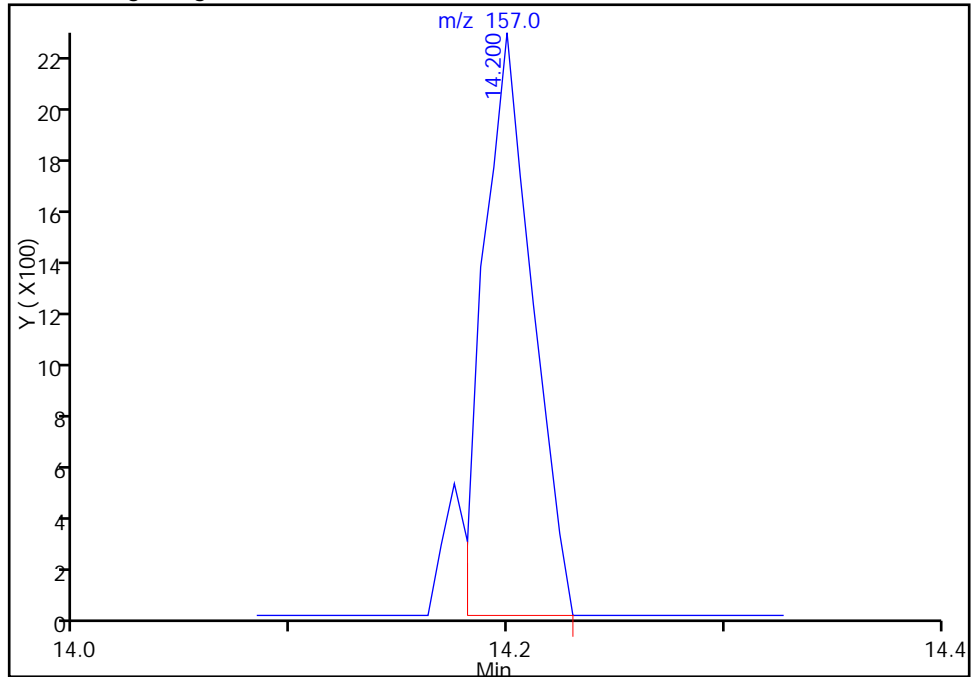
Detector

MS SCAN

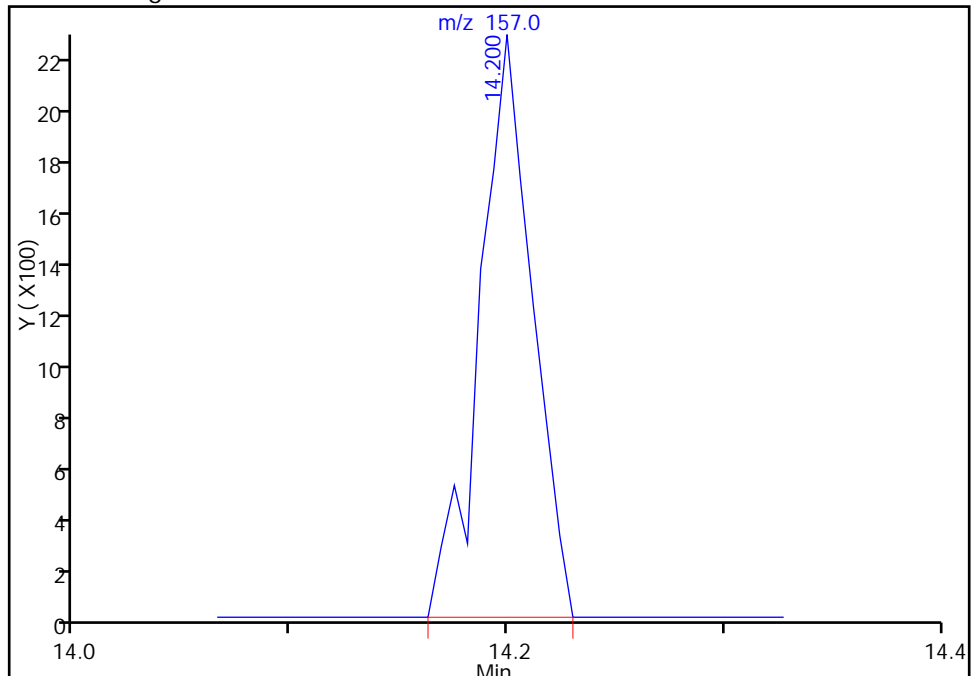
## 112 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

RT: 14.20  
Response: 3476  
Amount: 49.745701

## Processing Integration Results

RT: 14.20  
Response: 3760  
Amount: 42.650448

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:29:28

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K05.D  
 Lims ID: IC VSTD25  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 22-Sep-2014 11:52:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD25  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:51 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 11:49:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.719	4.719	0.000	96	266956	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.615	0.000	98	644387	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	87	151338	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	95	210523	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.867	6.867	0.000	94	66984	125.0	123.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.244	7.238	0.006	95	81002	125.0	127.9	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	92	316945	125.0	125.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.855	11.855	0.000	87	112241	125.0	126.9	
10 Dichlorodifluoromethane	85	1.775	1.799	-0.024	99	76441	125.0	123.2	
11 Chloromethane	50	1.945	1.945	0.000	99	138871	125.0	118.8	
12 Vinyl chloride	62	2.109	2.103	0.006	98	137222	125.0	118.2	
13 Butadiene	39	2.134	2.134	0.000	89	119974	125.0	114.5	
14 Bromomethane	94	2.468	2.481	-0.013	87	59240	125.0	128.1	
15 Chloroethane	64	2.608	2.639	-0.031	99	67812	125.0	116.8	
16 Dichlorofluoromethane	67	2.918	2.931	-0.013	98	146720	125.0	121.9	
17 Trichlorofluoromethane	101	3.034	2.992	0.042	65	93194	125.0	123.2	M
19 Ethyl ether	59	3.423	3.430	-0.007	96	83544	125.0	117.6	
20 Acrolein	56	3.600	3.588	0.012	99	62483	750.0	685.1	M
21 1,1-Dichloroethene	96	3.764	3.758	0.006	96	73570	125.0	118.5	
22 1,1,2-Trichloro-1,2,2-trif	101	3.807	3.807	0.000	94	67830	125.0	120.7	
23 Acetone	43	3.867	3.861	0.006	99	38032	125.0	104.9	
24 Iodomethane	142	3.995	4.007	-0.012	93	106165	125.0	125.8	M
25 Carbon disulfide	76	4.117	4.074	0.043	99	191280	125.0	116.5	
28 3-Chloro-1-propene	76	4.342	4.348	-0.006	93	52500	125.0	116.5	
29 Methyl acetate	43	4.433	4.433	0.000	99	420602	625.0	590.8	
30 Methylene Chloride	84	4.549	4.543	0.006	99	98489	125.0	125.0	
31 2-Methyl-2-propanol	59	4.841	4.841	0.000	99	82446	1250.0	1181.5	
32 Acrylonitrile	53	4.920	4.920	0.000	99	393987	1250.0	1200.7	
33 trans-1,2-Dichloroethene	96	4.962	4.963	-0.001	97	83396	125.0	124.9	
34 Methyl tert-butyl ether	73	5.011	5.005	0.006	97	199669	125.0	118.5	
35 Hexane	57	5.388	5.388	0.000	91	169364	125.0	116.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.546	5.553	-0.007	95	162959	125.0	122.2	
37 Vinyl acetate	43	5.662	5.668	-0.006	96	43954	125.0	116.2	
41 2,2-Dichloropropane	77	6.295	6.295	0.000	51	62580	125.0	124.4	
42 cis-1,2-Dichloroethene	96	6.301	6.295	0.006	83	89942	125.0	120.7	
43 2-Butanone (MEK)	43	6.331	6.337	-0.006	99	59821	125.0	118.5	
47 Chlorobromomethane	128	6.581	6.587	-0.006	90	38648	125.0	127.6	
48 Tetrahydrofuran	42	6.654	6.648	0.006	96	71633	250.0	243.7	
49 Chloroform	83	6.684	6.684	0.000	96	136266	125.0	130.0	
50 1,1,1-Trichloroethane	97	6.897	6.897	0.000	98	95815	125.0	131.0	
51 Cyclohexane	56	6.964	6.964	0.000	92	205795	125.0	130.1	
52 1,1-Dichloropropene	75	7.086	7.092	-0.006	94	112347	125.0	131.0	
53 Carbon tetrachloride	117	7.092	7.092	0.000	70	74689	125.0	127.4	
54 Isobutyl alcohol	41	7.256	7.256	0.000	97	82782	3125.0	3041.8	
55 Benzene	78	7.311	7.311	0.000	98	363797	125.0	131.3	
56 1,2-Dichloroethane	62	7.323	7.329	-0.006	93	102805	125.0	129.4	
59 n-Heptane	43	7.633	7.639	-0.006	94	170999	125.0	127.9	
60 Trichloroethene	130	8.010	8.010	0.000	98	83972	125.0	126.7	
63 Methylcyclohexane	83	8.223	8.223	0.000	96	167851	125.0	131.1	
64 1,2-Dichloropropane	63	8.235	8.242	-0.007	98	104966	125.0	131.0	
65 Dibromomethane	93	8.351	8.351	0.000	97	44755	125.0	130.2	
67 1,4-Dioxane	88	8.381	8.388	-0.007	96	17444	2500.0	2758.6	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	97543	125.0	133.5	
71 cis-1,3-Dichloropropene	75	8.984	8.978	0.006	95	133255	125.0	130.2	
72 4-Methyl-2-pentanone (MIBK)	43	9.136	9.136	0.000	96	103673	125.0	126.2	
73 Toluene	91	9.324	9.324	0.000	98	381673	125.0	131.9	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	93	107252	125.0	127.6	
75 Ethyl methacrylate	69	9.622	9.629	-0.007	94	111476	125.0	130.2	
76 1,1,2-Trichloroethane	97	9.714	9.720	-0.006	90	73242	125.0	126.8	
77 Tetrachloroethene	164	9.878	9.884	-0.006	97	68164	125.0	128.9	
78 1,3-Dichloropropane	76	9.884	9.884	0.000	94	134400	125.0	129.4	
79 2-Hexanone	43	9.963	9.957	0.006	97	88532	125.0	123.6	
81 Chlorodibromomethane	129	10.115	10.115	0.000	89	60232	125.0	128.5	
82 Ethylene Dibromide	107	10.225	10.231	-0.006	96	69982	125.0	128.3	
83 Chlorobenzene	112	10.723	10.724	-0.001	92	233841	125.0	129.4	
85 1,1,1,2-Tetrachloroethane	131	10.796	10.797	-0.001	96	68866	125.0	130.6	
86 Ethylbenzene	106	10.827	10.833	-0.006	98	130848	125.0	127.0	
87 m-Xylene & p-Xylene	106	10.942	10.949	-0.007	99	164565	125.0	131.8	
88 o-Xylene	106	11.338	11.344	-0.006	95	161863	125.0	131.7	
89 Styrene	104	11.350	11.350	0.000	94	271909	125.0	130.8	
90 Bromoform	173	11.533	11.533	0.000	95	33712	125.0	117.9	
91 Isopropylbenzene	105	11.709	11.709	0.000	95	416980	125.0	136.6	
93 1,1,2,2-Tetrachloroethane	83	11.983	11.989	-0.006	92	97923	125.0	131.5	
94 Bromobenzene	156	12.013	12.019	-0.006	96	91938	125.0	132.5	
95 1,2,3-Trichloropropane	110	12.037	12.032	0.005	84	27654	125.0	125.7	
96 trans-1,4-Dichloro-2-buten	53	12.044	12.044	0.000	76	33354	125.0	127.4	
97 N-Propylbenzene	120	12.117	12.129	-0.012	99	113935	125.0	132.1	
98 2-Chlorotoluene	126	12.208	12.214	-0.006	97	88237	125.0	127.5	
99 1,3,5-Trimethylbenzene	105	12.293	12.293	0.000	95	323116	125.0	133.8	
100 4-Chlorotoluene	126	12.317	12.311	0.006	98	95589	125.0	128.8	
101 tert-Butylbenzene	119	12.628	12.628	0.000	92	279517	125.0	132.8	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	96	323760	125.0	131.4	
104 sec-Butylbenzene	105	12.847	12.847	0.000	94	424763	125.0	135.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.956	12.956	0.000	98	171439	125.0	127.9	
106 4-Isopropyltoluene	119	12.987	12.987	-0.001	97	343591	125.0	136.2	
107 1,4-Dichlorobenzene	146	13.047	13.041	0.006	95	168870	125.0	128.3	
110 n-Butylbenzene	91	13.400	13.400	0.000	97	328951	125.0	133.1	
111 1,2-Dichlorobenzene	146	13.425	13.425	0.000	98	158938	125.0	130.6	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.203	0.000	79	13199	125.0	118.0	
114 1,2,4-Trichlorobenzene	180	15.043	15.049	-0.006	93	84480	125.0	125.6	
115 Hexachlorobutadiene	225	15.231	15.225	0.006	96	39102	125.0	127.5	
116 Naphthalene	128	15.304	15.304	0.000	97	204256	125.0	122.6	
117 1,2,3-Trichlorobenzene	180	15.572	15.572	0.000	96	66704	125.0	118.7	
S 129 Xylenes, Total	106				0		250.0	263.5	
S 130 1,2-Dichloroethene, Total	96				0		250.0	245.6	
S 131 1,3-Dichloropropene, Total	1				0		250.0	257.8	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR_00021	Amount Added: 5.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 30.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 5.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 5.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K05.D

Injection Date: 22-Sep-2014 11:52:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD25

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

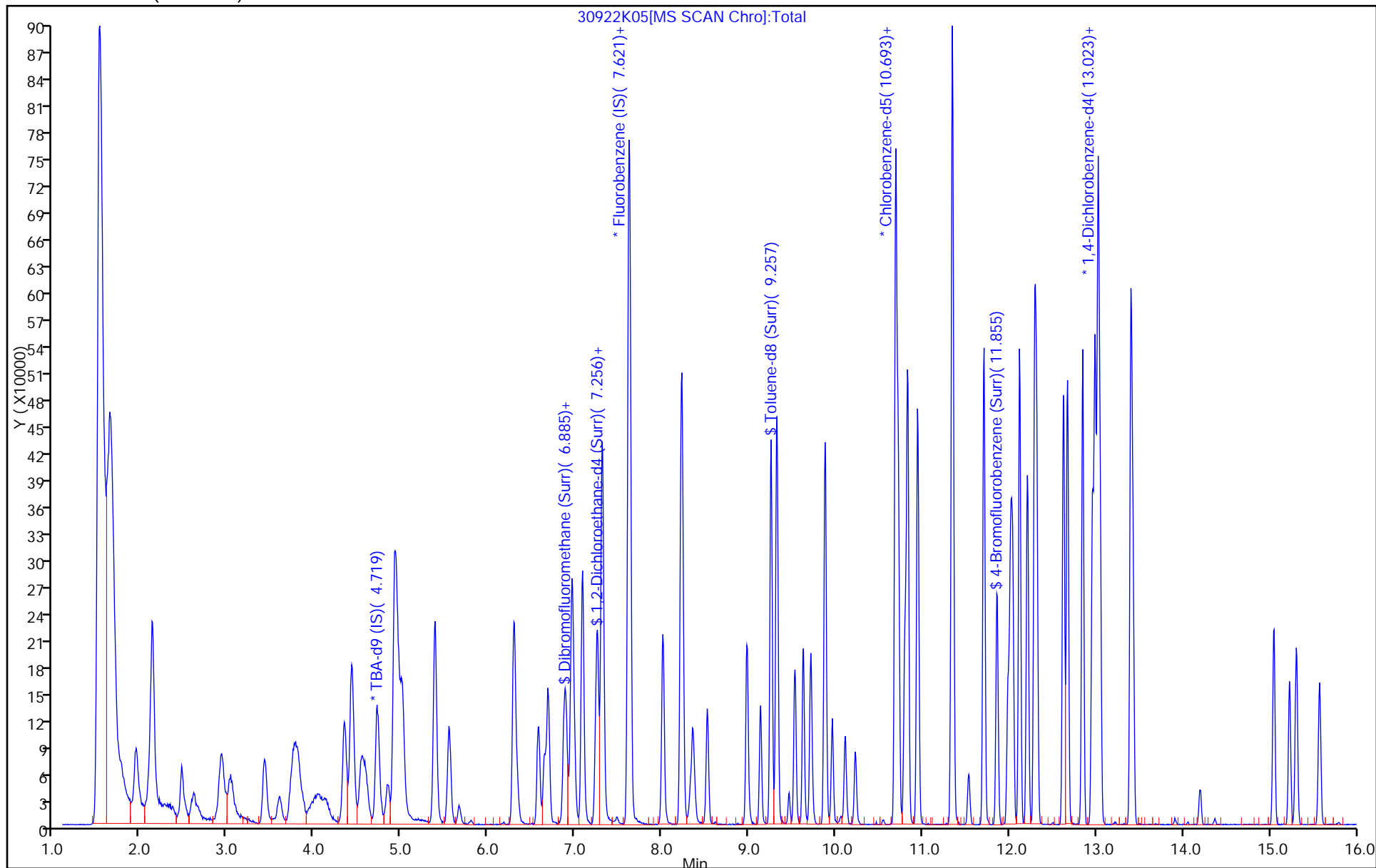
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K05.D

Injection Date: 22-Sep-2014 11:52:30

Instrument ID: CHHP3

Lims ID: IC VSTD25

Client ID:

Operator ID: 10099

ALS Bottle#:

5

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

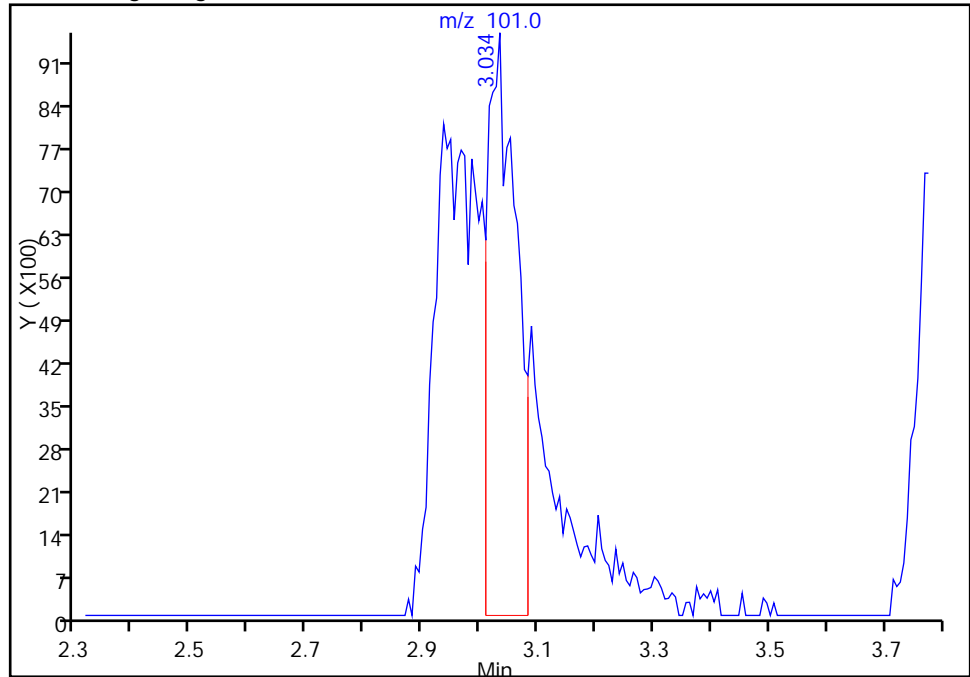
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 17 Trichlorofluoromethane, CAS: 75-69-4

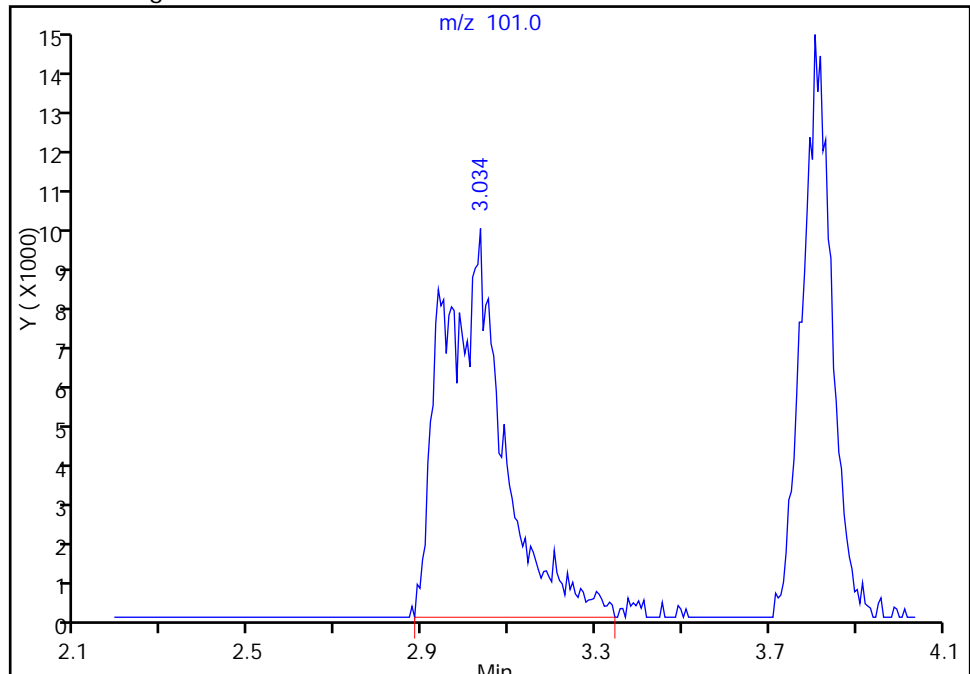
RT: 3.03  
Response: 33156  
Amount: 59.901945

## Processing Integration Results



RT: 3.03  
Response: 93194  
Amount: 123.1973

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:49:45

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K05.D

Injection Date: 22-Sep-2014 11:52:30

Instrument ID: CHHP3

Lims ID: IC VSTD25

Client ID:

Operator ID: 10099

ALS Bottle#:

5

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

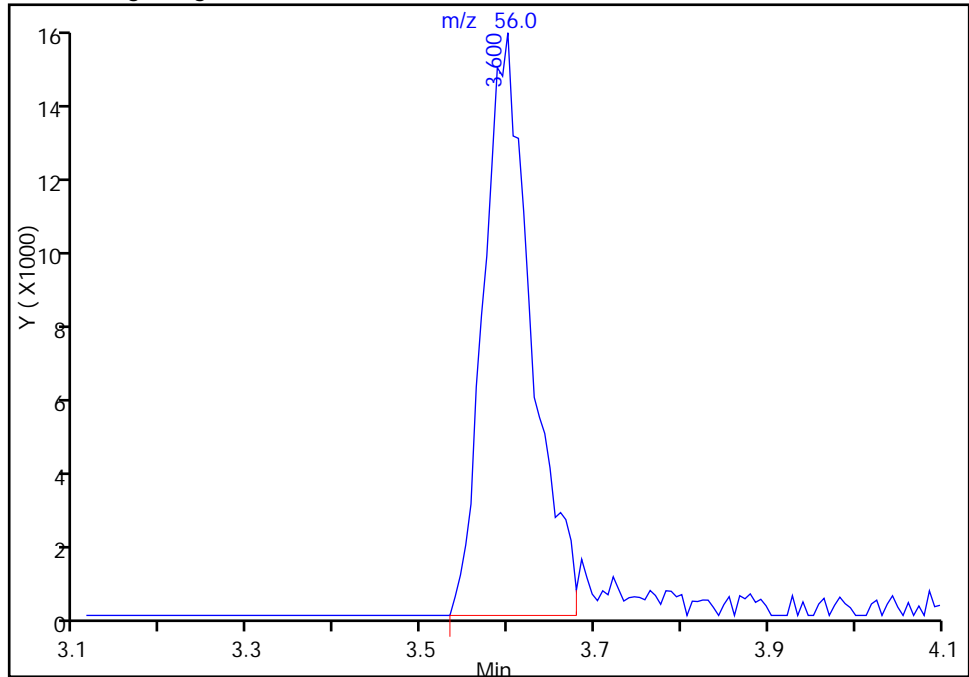
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 20 Acrolein, CAS: 107-02-8

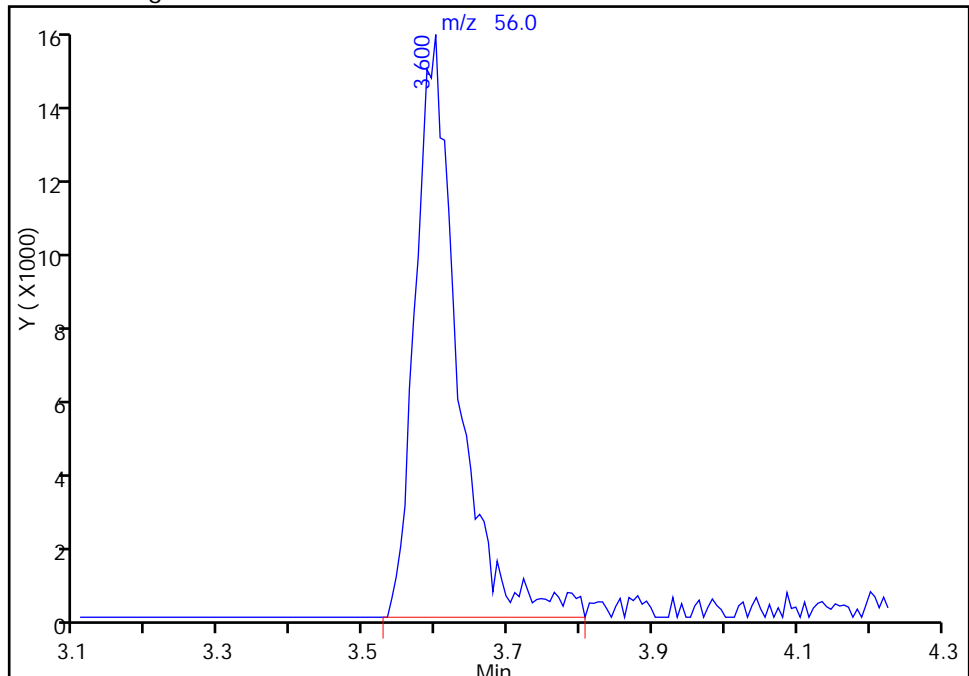
RT: 3.60  
Response: 57999  
Amount: 617.1158

## Processing Integration Results



RT: 3.60  
Response: 62483  
Amount: 685.1322

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:49:45

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K05.D

Injection Date: 22-Sep-2014 11:52:30

Instrument ID: CHHP3

Lims ID: IC VSTD25

Client ID:

Operator ID: 10099

ALS Bottle#:

5

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

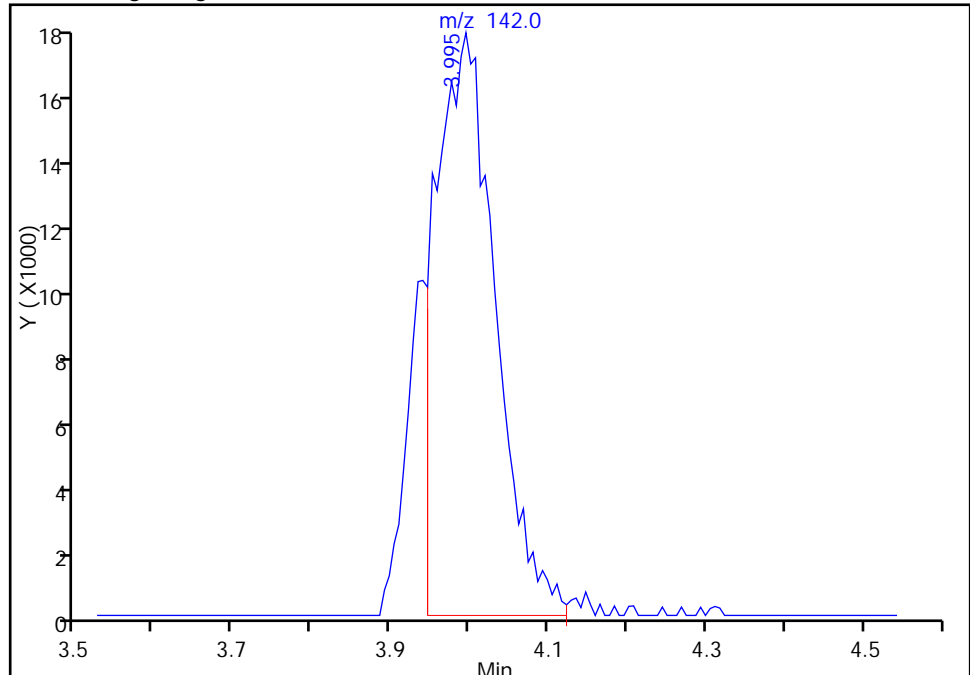
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 24 Iodomethane, CAS: 74-88-4

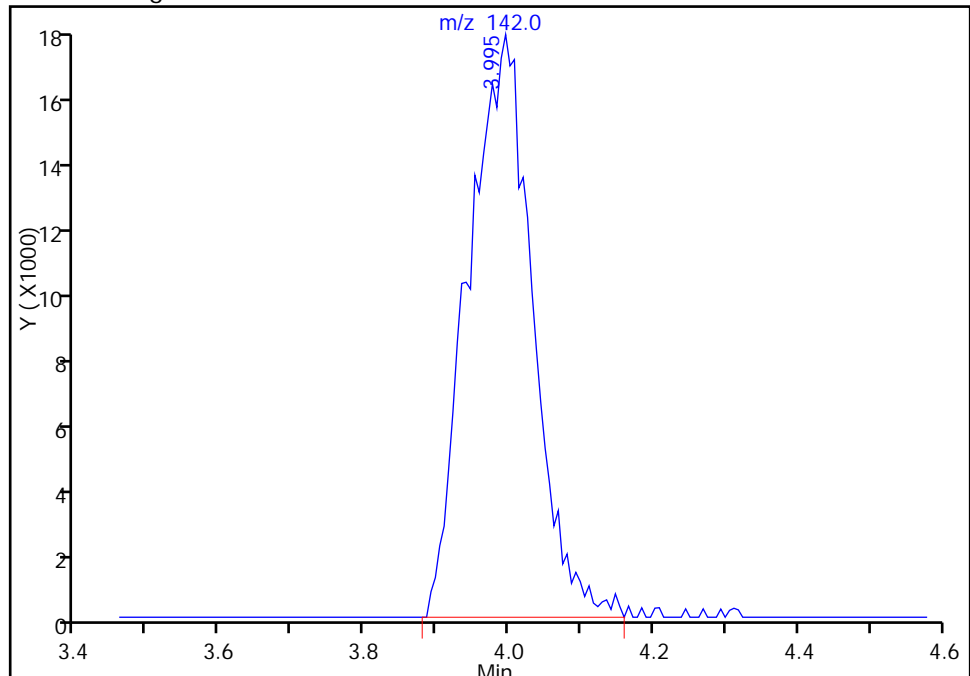
RT: 4.00  
Response: 89089  
Amount: 111.9258

## Processing Integration Results



RT: 4.00  
Response: 106165  
Amount: 125.8282

## Manual Integration Results



Reviewer: gordonk, 22-Sep-2014 11:49:45

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K06.D  
 Lims ID: ICIS VSTD40  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 22-Sep-2014 12:15:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD40  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:54 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 20:24:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.737	4.737	0.000	96	267947	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.615	0.000	99	675530	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	88	148472	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	95	206942	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.867	6.867	0.000	94	117254	200.0	206.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.238	7.238	0.000	95	136968	200.0	206.2	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	93	524871	200.0	212.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	86	177775	200.0	204.9	
10 Dichlorodifluoromethane	85	1.775	1.775	0.000	99	135608	200.0	208.5	
11 Chloromethane	50	1.945	1.945	0.000	99	259377	200.0	211.6	
12 Vinyl chloride	62	2.109	2.109	0.000	97	258752	200.0	212.5	
13 Butadiene	39	2.134	2.134	0.000	89	235457	200.0	214.4	
14 Bromomethane	94	2.474	2.474	0.000	87	93899	200.0	193.7	
15 Chloroethane	64	2.608	2.608	0.000	100	125246	200.0	205.7	
16 Dichlorofluoromethane	67	2.918	2.918	0.000	98	257419	200.0	204.0	
17 Trichlorofluoromethane	101	2.937	2.937	0.000	99	158839	200.0	200.3	
19 Ethyl ether	59	3.423	3.423	0.000	97	163304	200.0	219.3	
20 Acrolein	56	3.594	3.594	0.000	98	83035	875.0	868.5	
21 1,1-Dichloroethene	96	3.758	3.758	0.000	96	136804	200.0	210.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.801	3.801	0.000	94	119055	200.0	202.1	
23 Acetone	43	3.867	3.867	0.000	99	69811	200.0	194.6	
24 Iodomethane	142	3.989	3.989	0.000	96	179352	200.0	202.8	
25 Carbon disulfide	76	4.123	4.123	0.000	98	375470	200.0	218.1	
28 3-Chloro-1-propene	76	4.342	4.342	0.000	94	99056	200.0	209.7	
29 Methyl acetate	43	4.433	4.433	0.000	99	763036	1000.0	1022.3	
30 Methylene Chloride	84	4.585	4.585	0.000	97	154613	200.0	199.1	
31 2-Methyl-2-propanol	59	4.847	4.847	0.000	99	138988	2000.0	1984.4	
32 Acrylonitrile	53	4.926	4.926	0.000	98	693827	2000.0	2017.0	
33 trans-1,2-Dichloroethene	96	4.962	4.962	0.000	96	143890	200.0	205.6	
34 Methyl tert-butyl ether	73	5.011	5.011	0.000	97	356804	200.0	201.9	
35 Hexane	57	5.388	5.388	0.000	91	302424	200.0	198.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.546	5.546	0.000	95	295304	200.0	211.3	
37 Vinyl acetate	43	5.668	5.668	0.000	96	80561	200.0	203.2	
41 2,2-Dichloropropane	77	6.295	6.295	0.000	53	114309	200.0	216.8	
42 cis-1,2-Dichloroethene	96	6.295	6.295	0.000	84	161072	200.0	206.2	
43 2-Butanone (MEK)	43	6.337	6.337	0.000	98	112603	200.0	212.7	
47 Chlorobromomethane	128	6.575	6.575	0.000	89	65755	200.0	207.1	
48 Tetrahydrofuran	42	6.648	6.648	0.000	95	126536	400.0	410.6	
49 Chloroform	83	6.690	6.690	0.000	96	224986	200.0	204.8	
50 1,1,1-Trichloroethane	97	6.891	6.891	0.000	99	161628	200.0	210.8	
51 Cyclohexane	56	6.970	6.970	0.000	92	345571	200.0	208.5	
52 1,1-Dichloropropene	75	7.080	7.080	0.000	93	184357	200.0	205.1	
53 Carbon tetrachloride	117	7.086	7.086	0.000	72	128649	200.0	209.3	
54 Isobutyl alcohol	41	7.262	7.262	0.000	94	150361	5000.0	5270.3	
55 Benzene	78	7.311	7.311	0.000	97	605217	200.0	208.4	
56 1,2-Dichloroethane	62	7.323	7.323	0.000	95	171880	200.0	206.3	
59 n-Heptane	43	7.633	7.633	0.000	94	295285	200.0	210.6	
60 Trichloroethene	130	8.010	8.010	0.000	97	139855	200.0	201.2	
63 Methylcyclohexane	83	8.223	8.223	0.000	95	273914	200.0	204.2	
64 1,2-Dichloropropane	63	8.235	8.235	0.000	98	171463	200.0	204.1	
65 Dibromomethane	93	8.351	8.351	0.000	97	72679	200.0	201.7	
67 1,4-Dioxane	88	8.375	8.375	0.000	96	25716	4000.0	3879.2	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	156361	200.0	204.1	
71 cis-1,3-Dichloropropene	75	8.978	8.978	0.000	95	225254	200.0	209.9	
72 4-Methyl-2-pentanone (MIBK)	43	9.136	9.136	0.000	96	173575	200.0	215.3	
73 Toluene	91	9.324	9.324	0.000	98	608112	200.0	214.2	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	94	171421	200.0	208.0	
75 Ethyl methacrylate	69	9.629	9.629	0.000	94	179109	200.0	213.2	
76 1,1,2-Trichloroethane	97	9.714	9.714	0.000	89	120965	200.0	213.5	
77 Tetrachloroethene	164	9.878	9.878	0.000	95	104952	200.0	202.4	
78 1,3-Dichloropropane	76	9.884	9.884	0.000	94	210952	200.0	207.1	
79 2-Hexanone	43	9.963	9.963	0.000	96	156510	200.0	222.7	
81 Chlorodibromomethane	129	10.109	10.109	0.000	91	96352	200.0	209.5	
82 Ethylene Dibromide	107	10.225	10.225	0.000	96	111290	200.0	207.9	
83 Chlorobenzene	112	10.724	10.724	0.000	93	374887	200.0	211.5	
85 1,1,1,2-Tetrachloroethane	131	10.803	10.803	0.000	97	110152	200.0	213.0	
86 Ethylbenzene	106	10.827	10.827	0.000	98	210392	200.0	208.2	
87 m-Xylene & p-Xylene	106	10.943	10.943	0.000	99	251894	200.0	205.6	
88 o-Xylene	106	11.338	11.338	0.000	97	252365	200.0	209.3	
89 Styrene	104	11.350	11.350	0.000	96	427633	200.0	209.7	
90 Bromoform	173	11.539	11.539	0.000	94	58834	200.0	209.8	
91 Isopropylbenzene	105	11.709	11.709	0.000	96	639204	200.0	213.5	
93 1,1,2,2-Tetrachloroethane	83	11.989	11.989	0.000	93	155073	200.0	212.3	
94 Bromobenzene	156	12.019	12.019	0.000	96	139143	200.0	203.9	
95 1,2,3-Trichloropropane	110	12.038	12.038	0.000	83	43578	200.0	201.5	
96 trans-1,4-Dichloro-2-buten	53	12.044	12.044	0.000	76	52023	200.0	202.1	
97 N-Propylbenzene	120	12.123	12.123	0.000	99	174077	200.0	205.3	
98 2-Chlorotoluene	126	12.208	12.208	0.000	97	141191	200.0	207.5	
99 1,3,5-Trimethylbenzene	105	12.293	12.293	0.000	95	502867	200.0	211.9	
100 4-Chlorotoluene	126	12.317	12.317	0.000	98	144969	200.0	198.7	
101 tert-Butylbenzene	119	12.628	12.628	0.000	93	441145	200.0	213.3	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	97	508459	200.0	209.9	
104 sec-Butylbenzene	105	12.847	12.847	0.000	93	673141	200.0	218.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.956	12.956	0.000	98	269056	200.0	204.2	
106 4-Isopropyltoluene	119	12.987	12.987	0.000	97	534168	200.0	215.4	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	95	271251	200.0	209.6	
110 n-Butylbenzene	91	13.400	13.400	0.000	98	531476	200.0	218.8	
111 1,2-Dichlorobenzene	146	13.425	13.425	0.000	98	250778	200.0	209.6	
112 1,2-Dibromo-3-Chloropropan	157	14.197	14.197	0.000	82	21572	200.0	196.2	
114 1,2,4-Trichlorobenzene	180	15.049	15.049	0.000	95	126238	200.0	190.9	
115 Hexachlorobutadiene	225	15.231	15.231	0.000	97	57911	200.0	192.1	
116 Naphthalene	128	15.310	15.310	0.000	97	309834	200.0	189.1	
117 1,2,3-Trichlorobenzene	180	15.566	15.566	0.000	96	104456	200.0	189.2	
S 129 Xylenes, Total	106				0		400.0	414.9	
S 130 1,2-Dichloroethene, Total	96				0		400.0	411.8	
S 131 1,3-Dichloropropene, Total	1				0		400.0	417.9	

**Reagents:**

VOA8260SURR_00021	Amount Added: 8.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 35.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 8.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent



Report Date: 22-Sep-2014 20:36:56

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K06.D

Injection Date: 22-Sep-2014 12:15:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: ICIS VSTD40

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

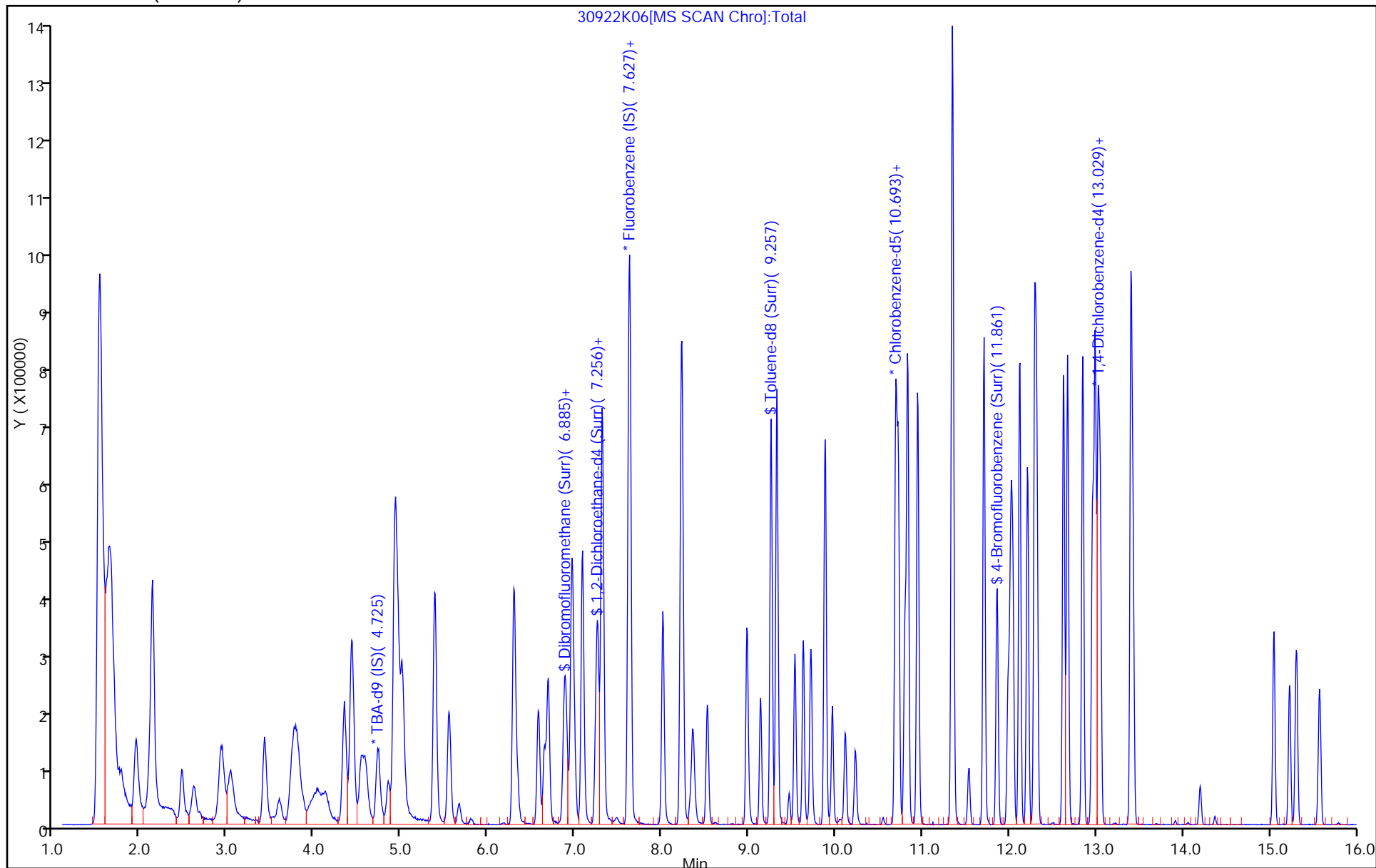
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K07.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 22-Sep-2014 12:38:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:58 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 20:27:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.731	4.737	-0.006	96	342057	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.615	0.000	98	658478	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	87	154755	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	95	215809	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.867	6.867	0.000	94	141042	250.0	254.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.238	7.238	0.000	97	168307	250.0	260.0	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	93	641835	250.0	249.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	85	230965	250.0	255.4	
10 Dichlorodifluoromethane	85	1.775	1.775	0.000	99	170358	250.0	268.7	
11 Chloromethane	50	1.945	1.945	0.000	99	335246	250.0	280.6	
12 Vinyl chloride	62	2.109	2.109	0.000	97	325005	250.0	273.9	
13 Butadiene	39	2.140	2.134	0.006	88	301575	250.0	281.8	
14 Bromomethane	94	2.474	2.474	0.000	88	113736	250.0	240.7	
15 Chloroethane	64	2.608	2.608	0.000	99	142231	250.0	239.6	
16 Dichlorofluoromethane	67	2.918	2.918	0.000	98	323088	250.0	262.6	
17 Trichlorofluoromethane	101	2.937	2.937	0.000	98	204408	250.0	264.4	
19 Ethyl ether	59	3.423	3.423	0.000	97	183031	250.0	252.2	
20 Acrolein	56	3.600	3.594	0.006	99	97515	1000.0	1046.4	
21 1,1-Dichloroethene	96	3.764	3.758	0.006	96	163045	250.0	256.9	
22 1,1,2-Trichloro-1,2,2-trif	101	3.801	3.801	0.000	95	149940	250.0	261.2	
23 Acetone	43	3.880	3.867	0.013	100	81549	250.0	237.9	
24 Iodomethane	142	4.001	3.989	0.012	94	223902	250.0	259.7	
25 Carbon disulfide	76	4.135	4.123	0.012	100	452221	250.0	269.5	
28 3-Chloro-1-propene	76	4.330	4.342	-0.012	94	118110	250.0	256.6	
29 Methyl acetate	43	4.427	4.433	-0.006	99	1002674	1250.0	1378.2	
30 Methylene Chloride	84	4.543	4.585	-0.042	99	189100	250.0	256.0	
31 2-Methyl-2-propanol	59	4.853	4.847	0.006	99	211699	2500.0	2367.7	
32 Acrylonitrile	53	4.926	4.926	0.000	100	951721	2500.0	2838.3	
33 trans-1,2-Dichloroethene	96	4.950	4.962	-0.012	95	176688	250.0	259.0	
34 Methyl tert-butyl ether	73	5.011	5.011	0.000	97	463284	250.0	269.0	
35 Hexane	57	5.382	5.388	-0.006	93	361964	250.0	243.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.547	5.546	0.001	96	368704	250.0	270.6	
37 Vinyl acetate	43	5.668	5.668	0.000	97	108612	250.0	281.0	
41 2,2-Dichloropropane	77	6.295	6.295	0.000	51	136303	250.0	265.2	
42 cis-1,2-Dichloroethene	96	6.295	6.295	0.000	84	198872	250.0	261.2	
43 2-Butanone (MEK)	43	6.331	6.337	-0.006	99	142829	250.0	276.8	
47 Chlorobromomethane	128	6.575	6.575	0.000	88	80374	250.0	259.7	
48 Tetrahydrofuran	42	6.648	6.648	0.000	93	161967	500.0	539.2	
49 Chloroform	83	6.690	6.690	0.000	96	276932	250.0	258.6	
50 1,1,1-Trichloroethane	97	6.897	6.891	0.006	99	194463	250.0	260.2	
51 Cyclohexane	56	6.964	6.970	-0.006	92	425779	250.0	263.5	
52 1,1-Dichloropropene	75	7.086	7.080	0.006	94	223148	250.0	254.6	
53 Carbon tetrachloride	117	7.086	7.086	0.000	72	158223	250.0	264.0	
54 Isobutyl alcohol	41	7.262	7.262	0.000	96	203108	6250.0	7303.5	
55 Benzene	78	7.305	7.311	-0.006	97	739862	250.0	261.4	
56 1,2-Dichloroethane	62	7.323	7.323	0.000	95	212255	250.0	261.4	
59 n-Heptane	43	7.633	7.633	0.000	95	361941	250.0	264.8	
60 Trichloroethene	130	8.010	8.010	0.000	99	172040	250.0	254.0	
63 Methylcyclohexane	83	8.223	8.223	0.000	96	338623	250.0	258.9	
64 1,2-Dichloropropane	63	8.235	8.235	0.000	99	214975	250.0	262.5	
65 Dibromomethane	93	8.357	8.351	0.006	94	91632	250.0	260.9	
67 1,4-Dioxane	88	8.381	8.375	0.006	96	35290	5000.0	5461.3	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	200561	250.0	268.6	
71 cis-1,3-Dichloropropene	75	8.978	8.978	0.000	95	278437	250.0	266.2	
72 4-Methyl-2-pentanone (MIBK)	43	9.136	9.136	0.000	97	224617	250.0	267.3	
73 Toluene	91	9.324	9.324	0.000	99	738818	250.0	249.7	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	95	223749	250.0	260.4	
75 Ethyl methacrylate	69	9.629	9.629	0.001	96	224776	250.0	256.7	
76 1,1,2-Trichloroethane	97	9.714	9.714	0.000	91	144787	250.0	245.2	
77 Tetrachloroethene	164	9.878	9.878	0.000	97	129778	250.0	240.1	
78 1,3-Dichloropropane	76	9.878	9.884	-0.006	94	267442	250.0	251.9	
79 2-Hexanone	43	9.963	9.963	0.000	97	194522	250.0	265.5	
81 Chlorodibromomethane	129	10.109	10.109	0.000	91	124276	250.0	259.2	
82 Ethylene Dibromide	107	10.225	10.225	0.000	99	140976	250.0	252.7	
83 Chlorobenzene	112	10.724	10.724	0.000	93	457482	250.0	247.6	
85 1,1,1,2-Tetrachloroethane	131	10.797	10.803	-0.006	97	136678	250.0	253.5	
86 Ethylbenzene	106	10.833	10.827	0.006	98	261892	250.0	248.6	
87 m-Xylene & p-Xylene	106	10.943	10.943	0.000	99	315186	250.0	246.8	
88 o-Xylene	106	11.344	11.338	0.006	96	317356	250.0	252.5	
89 Styrene	104	11.350	11.350	0.000	94	533209	250.0	250.9	
90 Bromoform	173	11.533	11.539	-0.006	97	76310	250.0	261.0	
91 Isopropylbenzene	105	11.709	11.709	0.000	96	803082	250.0	257.3	
93 1,1,2,2-Tetrachloroethane	83	11.989	11.989	0.000	92	201960	250.0	265.2	
94 Bromobenzene	156	12.013	12.019	-0.006	95	173306	250.0	243.6	
95 1,2,3-Trichloropropane	110	12.038	12.038	0.000	83	56043	250.0	248.5	
96 trans-1,4-Dichloro-2-buten	53	12.044	12.044	0.000	80	70950	250.0	264.3	
97 N-Propylbenzene	120	12.123	12.123	0.000	99	221592	250.0	250.6	
98 2-Chlorotoluene	126	12.208	12.208	0.000	96	175715	250.0	247.6	
99 1,3,5-Trimethylbenzene	105	12.293	12.293	0.000	94	636647	250.0	257.2	
100 4-Chlorotoluene	126	12.317	12.317	0.000	98	184132	250.0	242.1	
101 tert-Butylbenzene	119	12.622	12.628	-0.006	93	558229	250.0	258.8	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	97	651145	250.0	257.8	
104 sec-Butylbenzene	105	12.847	12.847	0.000	94	820631	250.0	255.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.956	12.956	0.000	98	349892	250.0	254.7	
106 4-Isopropyltoluene	119	12.987	12.987	0.000	97	653311	250.0	252.7	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	94	342103	250.0	253.5	
110 n-Butylbenzene	91	13.400	13.400	0.000	97	665833	250.0	262.8	
111 1,2-Dichlorobenzene	146	13.425	13.425	0.000	97	316343	250.0	253.6	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.197	0.006	83	31645	250.0	275.9	
114 1,2,4-Trichlorobenzene	180	15.043	15.049	-0.006	95	182391	250.0	264.5	
115 Hexachlorobutadiene	225	15.225	15.231	-0.006	97	78151	250.0	248.6	
116 Naphthalene	128	15.304	15.310	-0.006	97	477511	250.0	279.5	
117 1,2,3-Trichlorobenzene	180	15.572	15.566	0.006	96	145763	250.0	253.1	
S 129 Xylenes, Total	106				0		500.0	499.3	
S 130 1,2-Dichloroethene, Total	96				0		500.0	520.1	
S 131 1,3-Dichloropropene, Total	1				0		500.0	526.6	

## Reagents:

VOA8260SURR_00021	Amount Added: 10.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 40.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 10.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K07.D

Injection Date: 22-Sep-2014 12:38:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD50

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

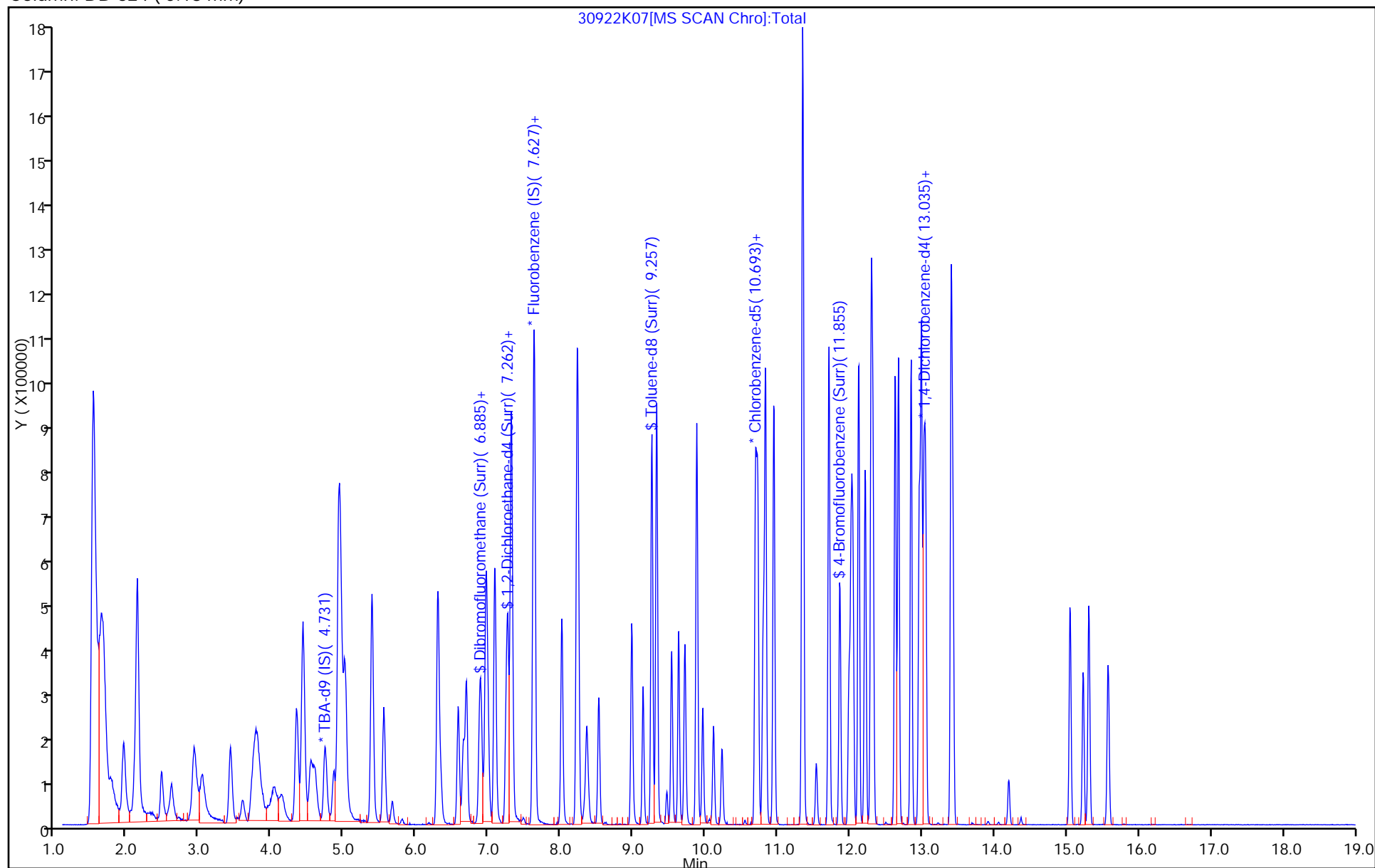
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K08.D  
 Lims ID: IC VSTD125  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 22-Sep-2014 13:04:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD125  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:36:59 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 20:28:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.719	4.737	-0.018	96	306667	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.615	0.000	98	696174	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	87	154629	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	95	215873	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.872	6.867	0.005	93	360044	625.0	614.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.237	7.238	-0.001	96	427023	625.0	623.9	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	93	1558387	625.0	605.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	86	557450	625.0	616.9	
10 Dichlorodifluoromethane	85	1.775	1.775	-0.001	99	452630	625.0	675.2	
11 Chloromethane	50	1.945	1.945	0.000	99	801594	625.0	634.6	
12 Vinyl chloride	62	2.121	2.109	0.012	98	802593	625.0	639.7	
13 Butadiene	39	2.133	2.134	-0.001	88	726379	625.0	641.9	
14 Bromomethane	94	2.474	2.474	0.000	89	273788	625.0	548.2	
15 Chloroethane	64	2.614	2.608	0.006	100	434438	625.0	692.3	
16 Dichlorofluoromethane	67	2.936	2.918	0.018	98	825954	625.0	635.0	
17 Trichlorofluoromethane	101	3.034	2.937	0.097	94	553781	625.0	677.6	
19 Ethyl ether	59	3.423	3.423	0.000	98	466461	625.0	607.8	
20 Acrolein	56	3.587	3.594	-0.007	99	105882	1125.0	1074.6	
21 1,1-Dichloroethene	96	3.776	3.758	0.018	97	421942	625.0	628.9	
22 1,1,2-Trichloro-1,2,2-trif	101	3.819	3.801	0.018	96	378557	625.0	623.7	
23 Acetone	43	3.867	3.867	0.000	100	201769	625.0	645.6	
24 Iodomethane	142	4.007	3.989	0.018	95	553175	625.0	606.9	
25 Carbon disulfide	76	4.123	4.123	0.000	100	1183235	625.0	667.0	
28 3-Chloro-1-propene	76	4.348	4.342	0.006	93	327500	625.0	672.9	
29 Methyl acetate	43	4.427	4.433	-0.006	99	2382747	3125.0	3097.7	
30 Methylene Chloride	84	4.549	4.585	-0.036	95	460059	625.0	620.3	
31 2-Methyl-2-propanol	59	4.847	4.847	0.000	99	469072	6250.0	5851.5	
32 Acrylonitrile	53	4.926	4.926	0.000	98	2222625	6250.0	6269.7	
33 trans-1,2-Dichloroethene	96	4.962	4.962	0.000	95	444726	625.0	616.5	
34 Methyl tert-butyl ether	73	5.005	5.011	-0.006	97	1143385	625.0	627.9	
35 Hexane	57	5.388	5.388	0.000	92	940285	625.0	598.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.546	5.546	0.000	96	914134	625.0	634.6	
37 Vinyl acetate	43	5.662	5.668	-0.006	97	281551	625.0	689.0	
41 2,2-Dichloropropane	77	6.295	6.295	0.000	51	349419	625.0	642.9	
42 cis-1,2-Dichloroethene	96	6.295	6.295	0.000	84	509367	625.0	632.7	
43 2-Butanone (MEK)	43	6.331	6.337	-0.006	99	319995	625.0	586.5	
47 Chlorobromomethane	128	6.580	6.575	0.005	89	204457	625.0	624.9	
48 Tetrahydrofuran	42	6.641	6.648	-0.007	95	396752	1250.0	1249.3	
49 Chloroform	83	6.690	6.690	0.000	96	720722	625.0	636.7	
50 1,1,1-Trichloroethane	97	6.891	6.891	0.000	98	505932	625.0	640.3	
51 Cyclohexane	56	6.970	6.970	0.000	92	1084522	625.0	634.8	
52 1,1-Dichloropropene	75	7.085	7.080	0.005	97	577165	625.0	623.0	
53 Carbon tetrachloride	117	7.091	7.086	0.005	98	422875	625.0	667.5	
54 Isobutyl alcohol	41	7.262	7.262	0.000	95	498735	15625	16963	
55 Benzene	78	7.310	7.311	-0.001	98	1811761	625.0	605.4	
56 1,2-Dichloroethane	62	7.323	7.323	0.000	91	541034	625.0	630.3	
59 n-Heptane	43	7.639	7.633	0.006	94	984001	625.0	681.0	
60 Trichloroethene	130	8.016	8.010	0.006	97	444117	625.0	620.1	
63 Methylcyclohexane	83	8.223	8.223	0.000	96	901096	625.0	651.7	
64 1,2-Dichloropropane	63	8.235	8.235	0.000	98	558462	625.0	645.1	
65 Dibromomethane	93	8.351	8.351	0.000	97	234192	625.0	630.6	
67 1,4-Dioxane	88	8.375	8.375	0.000	95	92441	12500	13531	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	534780	625.0	677.4	
71 cis-1,3-Dichloropropene	75	8.977	8.978	-0.001	95	748629	625.0	676.9	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.136	-0.001	96	558085	625.0	664.8	
73 Toluene	91	9.324	9.324	0.000	98	1829734	625.0	618.9	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	94	583926	625.0	680.2	
75 Ethyl methacrylate	69	9.628	9.629	0.000	95	584754	625.0	668.4	
76 1,1,2-Trichloroethane	97	9.713	9.714	-0.001	91	370774	625.0	628.4	
77 Tetrachloroethene	164	9.878	9.878	0.000	96	337671	625.0	625.2	
78 1,3-Dichloropropane	76	9.878	9.884	-0.006	94	681657	625.0	642.5	
79 2-Hexanone	43	9.963	9.963	0.000	96	454996	625.0	621.6	
81 Chlorodibromomethane	129	10.109	10.109	0.000	91	344079	625.0	718.2	
82 Ethylene Dibromide	107	10.224	10.225	-0.001	98	367556	625.0	659.3	
83 Chlorobenzene	112	10.723	10.724	-0.001	92	1162743	625.0	629.8	
85 1,1,1,2-Tetrachloroethane	131	10.796	10.803	-0.007	97	364504	625.0	676.7	
86 Ethylbenzene	106	10.833	10.827	0.006	98	673438	625.0	639.8	
87 m-Xylene & p-Xylene	106	10.948	10.943	0.005	98	814109	625.0	638.0	
88 o-Xylene	106	11.344	11.338	0.006	96	816270	625.0	650.0	
89 Styrene	104	11.350	11.350	0.000	95	1353757	625.0	637.4	
90 Bromoform	173	11.532	11.539	-0.007	97	218144	625.0	746.8	
91 Isopropylbenzene	105	11.709	11.709	0.000	96	1926823	625.0	617.9	
93 1,1,2,2-Tetrachloroethane	83	11.989	11.989	0.000	93	501097	625.0	658.6	
94 Bromobenzene	156	12.019	12.019	0.000	96	447875	625.0	629.3	
95 1,2,3-Trichloropropane	110	12.031	12.038	-0.007	81	139582	625.0	618.8	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.044	-0.001	83	178239	625.0	663.8	
97 N-Propylbenzene	120	12.122	12.123	-0.001	98	563069	625.0	636.5	
98 2-Chlorotoluene	126	12.214	12.208	0.006	97	452238	625.0	637.1	
99 1,3,5-Trimethylbenzene	105	12.293	12.293	0.000	96	1537961	625.0	621.1	
100 4-Chlorotoluene	126	12.317	12.317	0.000	98	469635	625.0	617.2	
101 tert-Butylbenzene	119	12.627	12.628	-0.001	94	1369275	625.0	634.6	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	97	1584536	625.0	627.2	
104 sec-Butylbenzene	105	12.846	12.847	-0.001	94	2016162	625.0	627.7	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.962	12.956	0.006	99	870570	625.0	633.5	
106 4-Isopropyltoluene	119	12.986	12.987	-0.001	96	1611881	625.0	623.2	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	92	831810	625.0	616.1	
110 n-Butylbenzene	91	13.400	13.400	0.000	96	1631846	625.0	644.0	
111 1,2-Dichlorobenzene	146	13.424	13.425	-0.001	97	770334	625.0	617.3	
112 1,2-Dibromo-3-Chloropropan	157	14.197	14.197	0.000	82	80179	625.0	698.9	
114 1,2,4-Trichlorobenzene	180	15.049	15.049	0.000	95	407723	625.0	591.1	
115 Hexachlorobutadiene	225	15.225	15.231	-0.006	98	181983	625.0	578.7	
116 Naphthalene	128	15.304	15.310	-0.006	97	1034806	625.0	605.6	
117 1,2,3-Trichlorobenzene	180	15.572	15.566	0.006	96	347383	625.0	603.0	
S 129 Xylenes, Total	106				0		1250.0	1288.0	
S 130 1,2-Dichloroethene, Total	96				0		1250.0	1249.2	
S 131 1,3-Dichloropropene, Total	1				0		1250.0	1357.1	

## Reagents:

VOA8260SURR_00021	Amount Added: 25.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 45.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 25.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 25.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent



Report Date: 22-Sep-2014 20:37:00

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K08.D

Injection Date: 22-Sep-2014 13:04:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD125

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

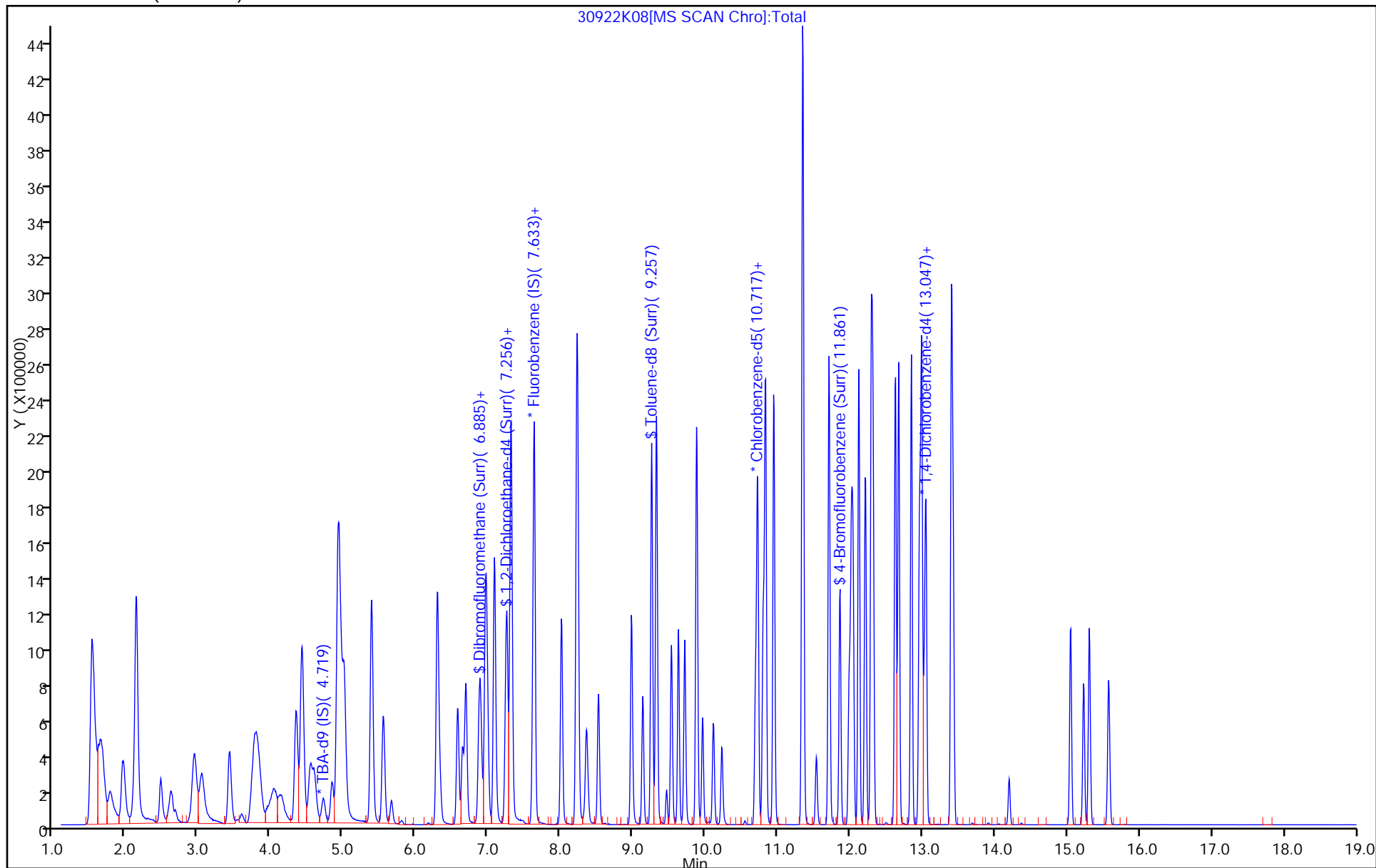
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Lims ID: IC VSTD250  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 22-Sep-2014 13:30:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD250  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub4  
 Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2014 20:37:00 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 20:36:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.737	4.737	0.000	96	228950	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.620	7.615	0.005	99	700426	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.692	10.693	-0.001	88	163604	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.022	13.023	-0.001	95	203845	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.872	6.867	0.005	94	732129	1250.0	1242.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.243	7.238	0.005	96	848729	1250.0	1232.5	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	93	3016106	1250.0	1107.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.860	11.861	-0.001	87	1116740	1250.0	1168.1	
10 Dichlorodifluoromethane	85	1.786	1.775	0.011	100	907471	1250.0	1345.6	
11 Chloromethane	50	1.963	1.945	0.018	99	1606126	1250.0	1263.9	
12 Vinyl chloride	62	2.127	2.109	0.018	98	1584230	1250.0	1254.9	
13 Butadiene	39	2.139	2.134	0.005	88	1422296	1250.0	1249.3	
14 Bromomethane	94	2.480	2.474	0.006	88	668441	1250.0	1330.2	
15 Chloroethane	64	2.644	2.608	0.036	100	776717	1250.0	1230.3	
16 Dichlorofluoromethane	67	2.936	2.918	0.018	98	1470991	1250.0	1124.0	
17 Trichlorofluoromethane	101	3.027	2.937	0.090	98	1055116	1250.0	1283.2	
19 Ethyl ether	59	3.429	3.423	0.006	98	928303	1250.0	1202.3	
20 Acrolein	56	3.593	3.594	-0.001	98	105153	1250.0	1060.8	
21 1,1-Dichloroethene	96	3.769	3.758	0.011	97	842868	1250.0	1248.6	
22 1,1,2-Trichloro-1,2,2-trif	101	3.818	3.801	0.017	95	766139	1250.0	1254.5	
23 Acetone	43	3.879	3.867	0.012	99	310913	1250.0	1241.6	
24 Iodomethane	142	4.013	3.989	0.024	95	1128409	1250.0	1230.4	
25 Carbon disulfide	76	4.116	4.123	-0.007	100	2395727	1250.0	1342.3	
28 3-Chloro-1-propene	76	4.347	4.342	0.005	94	694851	1250.0	1418.9	
29 Methyl acetate	43	4.432	4.433	-0.001	98	4446532	6250.0	5745.7	
30 Methylene Chloride	84	4.585	4.585	0.000	98	916125	1250.0	1251.4	
31 2-Methyl-2-propanol	59	4.858	4.847	0.011	100	994401	12500	16616	
32 Acrylonitrile	53	4.931	4.926	0.005	97	4181548	12500	11724	
33 trans-1,2-Dichloroethene	96	4.968	4.962	0.006	97	888268	1250.0	1224.0	
34 Methyl tert-butyl ether	73	5.016	5.011	0.005	97	2327102	1250.0	1270.3	
35 Hexane	57	5.394	5.388	0.006	93	1805679	1250.0	1142.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.552	5.546	0.006	96	1816914	1250.0	1253.7	
37 Vinyl acetate	43	5.667	5.668	-0.001	96	578056	1250.0	1406.0	
41 2,2-Dichloropropane	77	6.300	6.295	0.005	51	682977	1250.0	1249.1	
42 cis-1,2-Dichloroethene	96	6.300	6.295	0.005	83	1012319	1250.0	1249.8	
43 2-Butanone (MEK)	43	6.343	6.337	0.006	99	610471	1250.0	1112.2	
47 Chlorobromomethane	128	6.580	6.575	0.005	90	424964	1250.0	1291.0	
48 Tetrahydrofuran	42	6.647	6.648	-0.001	94	775898	2500.0	2428.3	
49 Chloroform	83	6.689	6.690	-0.001	96	1378961	1250.0	1210.7	
50 1,1,1-Trichloroethane	97	6.896	6.891	0.005	98	994230	1250.0	1250.6	
51 Cyclohexane	56	6.969	6.970	-0.001	93	2120839	1250.0	1233.9	
52 1,1-Dichloropropene	75	7.085	7.080	0.005	95	1151659	1250.0	1235.5	
53 Carbon tetrachloride	117	7.091	7.086	0.005	98	848315	1250.0	1330.9	
54 Isobutyl alcohol	41	7.267	7.262	0.005	95	891459	31250	30136	
55 Benzene	78	7.316	7.311	0.005	98	3423248	1250.0	1136.9	
56 1,2-Dichloroethane	62	7.328	7.323	0.005	94	1068241	1250.0	1236.9	
59 n-Heptane	43	7.638	7.633	0.005	93	1916244	1250.0	1318.1	
60 Trichloroethene	130	8.010	8.010	0.000	96	886859	1250.0	1230.7	
63 Methylcyclohexane	83	8.222	8.223	-0.001	95	1735115	1250.0	1247.2	
64 1,2-Dichloropropane	63	8.241	8.235	0.006	98	1091474	1250.0	1253.1	
65 Dibromomethane	93	8.356	8.351	0.005	97	474300	1250.0	1269.4	
67 1,4-Dioxane	88	8.381	8.375	0.006	93	159918	25000	23266	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	1090974	1250.0	1373.6	
71 cis-1,3-Dichloropropene	75	8.983	8.978	0.005	95	1473045	1250.0	1323.9	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.136	-0.001	96	1096629	1250.0	1234.7	
73 Toluene	91	9.324	9.324	0.000	97	3390346	1250.0	1083.9	
74 trans-1,3-Dichloropropene	75	9.537	9.531	0.005	94	1199816	1250.0	1320.9	
75 Ethyl methacrylate	69	9.628	9.629	0.000	94	1196268	1250.0	1292.4	
76 1,1,2-Trichloroethane	97	9.719	9.714	0.005	91	767893	1250.0	1230.1	
77 Tetrachloroethene	164	9.877	9.878	-0.001	95	689134	1250.0	1205.9	
78 1,3-Dichloropropane	76	9.883	9.884	-0.001	93	1370212	1250.0	1220.7	
79 2-Hexanone	43	9.962	9.963	-0.001	96	831031	1250.0	1073.1	
81 Chlorodibromomethane	129	10.114	10.109	0.005	91	719844	1250.0	1420.2	
82 Ethylene Dibromide	107	10.230	10.225	0.005	97	732773	1250.0	1242.3	
83 Chlorobenzene	112	10.723	10.724	-0.001	90	2294259	1250.0	1174.4	
85 1,1,1,2-Tetrachloroethane	131	10.802	10.803	-0.001	97	739886	1250.0	1298.3	
86 Ethylbenzene	106	10.832	10.827	0.005	97	1335537	1250.0	1199.2	
87 m-Xylene & p-Xylene	106	10.948	10.943	0.005	95	1621563	1250.0	1201.1	
88 o-Xylene	106	11.343	11.338	0.005	95	1635623	1250.0	1231.0	
89 Styrene	104	11.349	11.350	-0.001	94	2629993	1250.0	1170.4	
90 Bromoform	173	11.538	11.539	-0.001	97	454708	1250.0	1471.3	
91 Isopropylbenzene	105	11.708	11.709	-0.001	97	3440992	1250.0	1042.9	
93 1,1,2,2-Tetrachloroethane	83	11.988	11.989	-0.001	92	974591	1250.0	1210.7	
94 Bromobenzene	156	12.019	12.019	0.000	95	878774	1250.0	1307.5	
95 1,2,3-Trichloropropane	110	12.037	12.038	-0.001	83	275050	1250.0	1291.3	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.044	-0.001	81	353295	1250.0	1393.3	
97 N-Propylbenzene	120	12.128	12.123	0.005	96	1081191	1250.0	1294.3	
98 2-Chlorotoluene	126	12.213	12.208	0.005	96	858304	1250.0	1280.6	
99 1,3,5-Trimethylbenzene	105	12.298	12.293	0.005	96	2718662	1250.0	1162.7	
100 4-Chlorotoluene	126	12.317	12.317	0.000	98	915789	1250.0	1274.6	
101 tert-Butylbenzene	119	12.627	12.628	-0.001	93	2351297	1250.0	1154.1	
103 1,2,4-Trimethylbenzene	105	12.676	12.670	0.006	96	2708621	1250.0	1135.4	
104 sec-Butylbenzene	105	12.846	12.847	-0.001	95	3350555	1250.0	1104.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.962	12.956	0.006	98	1595979	1250.0	1229.9	
106 4-Isopropyltoluene	119	12.986	12.987	-0.001	95	2718927	1250.0	1113.2	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	93	1535511	1250.0	1204.4	
110 n-Butylbenzene	91	13.400	13.400	0.000	95	2796580	1250.0	1168.7	
111 1,2-Dichlorobenzene	146	13.424	13.425	-0.001	96	1447010	1250.0	1228.0	
112 1,2-Dibromo-3-Chloropropan	157	14.196	14.197	-0.001	83	162992	1250.0	1504.6	
114 1,2,4-Trichlorobenzene	180	15.048	15.049	-0.001	94	1032089	1250.0	1584.6	
115 Hexachlorobutadiene	225	15.231	15.231	0.000	97	516423	1250.0	1739.2	
116 Naphthalene	128	15.310	15.310	0.000	97	2292118	1250.0	1420.6	
117 1,2,3-Trichlorobenzene	180	15.577	15.566	0.011	96	925139	1250.0	1700.8	
S 129 Xylenes, Total	106				0		2500.0	2432.1	
S 130 1,2-Dichloroethene, Total	96				0		2500.0	2473.7	
S 131 1,3-Dichloropropene, Total	1				0		2500.0	2644.8	

**Reagents:**

VOA8260SURR_00021	Amount Added: 50.00	Units: uL	
voaWAcro 1 Re_00001	Amount Added: 50.00	Units: uL	
voaWVA pri Re_00002	Amount Added: 50.00	Units: uL	
VOA8260VOAPRI_00080	Amount Added: 50.00	Units: uL	
VOA8260INT_00018	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D

Injection Date: 22-Sep-2014 13:30:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: IC VSTD250

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

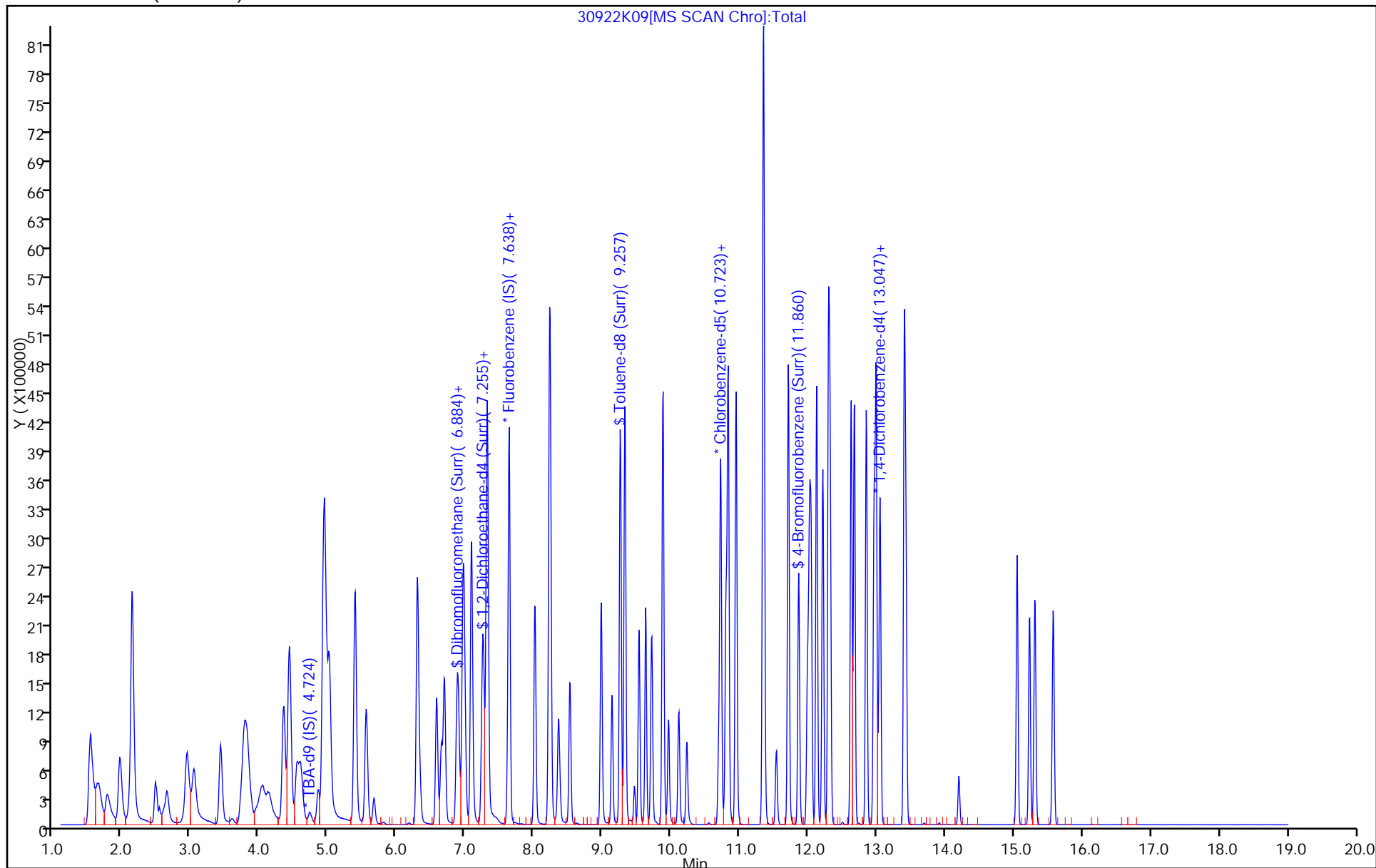
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: CCVIS 180-121881/2 Calibration Date: 10/17/2014 20:43  
Instrument ID: CHHP3 Calib Start Date: 03/07/2014 05:54  
GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/07/2014 08:21  
Lab File ID: 31017K02.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.0882	0.1112	0.0100	101	80.0	26.1*	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 17-Oct-2014 20:43:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub20  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 20:51:07 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 20:40:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.761	4.761	0.000	96	155243	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.620	7.620	0.000	96	482998	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	91	110502	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	96	161668	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.866	6.866	0.000	92	78626	200.0	193.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.243	7.243	0.000	92	114955	200.0	242.1	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	94	367032	200.0	199.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	86	131793	200.0	204.1	
10 Dichlorodifluoromethane	85	1.780	1.780	0.000	98	114628	200.0	246.5	
11 Chloromethane	50	1.951	1.951	0.000	99	172944	200.0	197.4	
12 Vinyl chloride	62	2.103	2.103	0.000	98	175589	200.0	201.7	
13 Butadiene	39	2.151	2.151	0.000	91	169706	200.0	216.2	
14 Bromomethane	94	2.486	2.486	0.000	88	110204	200.0	318.0	
15 Chloroethane	64	2.638	2.638	0.000	100	115215	200.0	264.6	
16 Dichlorofluoromethane	67	2.930	2.930	0.000	98	228030	200.0	252.7	
17 Trichlorofluoromethane	101	3.009	3.009	0.000	90	154799	200.0	273.0	M
19 Ethyl ether	59	3.429	3.429	0.000	97	114846	200.0	215.7	
20 Acrolein	56	3.593	3.593	0.000	98	64104	875.0	937.8	
21 1,1-Dichloroethene	96	3.770	3.770	0.000	93	95434	200.0	205.0	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.812	3.812	0.000	97	88306	200.0	209.7	
23 Acetone	43	3.891	3.891	0.000	91	39581	200.0	150.7	
24 Iodomethane	142	3.995	3.995	0.000	98	120459	200.0	190.5	M
25 Carbon disulfide	76	4.092	4.092	0.000	100	243916	200.0	198.2	M
28 3-Chloro-1-propene	76	4.335	4.335	0.000	90	58065	200.0	171.9	
29 Methyl acetate	43	4.439	4.439	0.000	99	415536	1000.0	778.7	
30 Methylene Chloride	84	4.530	4.530	0.000	98	115923	200.0	210.0	
31 2-Methyl-2-propanol	59	4.877	4.877	0.000	97	82587	2000.0	2035.2	
32 Acrylonitrile	53	4.931	4.931	0.000	98	435486	2000.0	1770.6	
33 trans-1,2-Dichloroethene	96	4.962	4.962	0.000	93	98560	200.0	196.9	
34 Methyl tert-butyl ether	73	5.017	5.017	0.000	99	298335	200.0	236.2	
35 Hexane	57	5.382	5.382	0.000	93	206846	200.0	189.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.546	5.546	0.000	96	221142	200.0	221.3	
41 2,2-Dichloropropane	77	6.294	6.294	0.000	52	82479	200.0	218.7	
42 cis-1,2-Dichloroethene	96	6.300	6.300	0.000	87	109924	200.0	196.8	
43 2-Butanone (MEK)	43	6.343	6.343	0.000	99	57021	200.0	150.6	
47 Chlorobromomethane	128	6.580	6.580	0.000	88	43484	200.0	191.6	
48 Tetrahydrofuran	42	6.653	6.653	0.000	92	71141	400.0	322.9	
49 Chloroform	83	6.690	6.690	0.000	96	183631	200.0	233.8	
50 1,1,1-Trichloroethane	97	6.890	6.890	0.000	96	127262	200.0	232.1	
51 Cyclohexane	56	6.963	6.963	0.000	93	247545	200.0	208.8	
52 1,1-Dichloropropene	75	7.079	7.079	0.000	91	142726	200.0	222.0	
53 Carbon tetrachloride	117	7.091	7.091	0.000	71	105187	200.0	239.3	
54 Isobutyl alcohol	41	7.268	7.268	0.000	97	82626	5000.0	4050.6	
55 Benzene	78	7.310	7.310	0.000	97	418799	200.0	201.7	
56 1,2-Dichloroethane	62	7.322	7.322	0.000	95	154206	200.0	258.9	
59 n-Heptane	43	7.633	7.633	0.000	94	205975	200.0	205.5	
60 Trichloroethene	130	8.010	8.010	0.000	95	93252	200.0	187.7	
63 Methylcyclohexane	83	8.223	8.223	0.000	96	203162	200.0	211.8	
64 1,2-Dichloropropane	63	8.241	8.241	0.000	95	122931	200.0	204.7	
65 Dibromomethane	93	8.350	8.350	0.000	97	51474	200.0	199.8	
67 1,4-Dioxane	88	8.381	8.381	0.000	93	16787	4000.0	3541.7	
68 Dichlorobromomethane	83	8.521	8.521	0.000	97	124361	200.0	227.1	
70 2-Chloroethyl vinyl ether	63	8.837	8.837	0.000	92	85936	400.0	504.3	
71 cis-1,3-Dichloropropene	75	8.983	8.983	0.000	92	168548	200.0	219.7	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.135	0.000	96	112900	200.0	188.2	
73 Toluene	91	9.324	9.324	0.000	98	440957	200.0	208.7	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	97	139072	200.0	226.7	
75 Ethyl methacrylate	69	9.628	9.628	0.000	93	135068	200.0	216.0	
76 1,1,2-Trichloroethane	97	9.719	9.719	0.000	93	83200	200.0	197.3	
77 Tetrachloroethene	164	9.877	9.877	0.000	95	74151	200.0	192.1	
78 1,3-Dichloropropane	76	9.883	9.883	0.000	96	163206	200.0	215.3	
79 2-Hexanone	43	9.963	9.963	0.000	96	110397	200.0	211.1	
81 Chlorodibromomethane	129	10.115	10.115	0.000	91	74214	200.0	216.8	
82 Ethylene Dibromide	107	10.224	10.224	0.000	95	82684	200.0	207.5	
83 Chlorobenzene	112	10.723	10.723	0.000	90	269134	200.0	204.0	
85 1,1,1,2-Tetrachloroethane	131	10.802	10.802	0.000	94	84477	200.0	219.5	
86 Ethylbenzene	106	10.832	10.832	0.000	99	151967	200.0	202.0	
87 m-Xylene & p-Xylene	106	10.948	10.948	0.000	99	179637	200.0	197.0	
88 o-Xylene	106	11.343	11.343	0.000	98	181927	200.0	202.7	
89 Styrene	104	11.356	11.356	0.000	95	321098	200.0	211.6	
90 Bromoform	173	11.532	11.532	0.000	94	40681	200.0	194.9	
91 Isopropylbenzene	105	11.708	11.708	0.000	96	477637	200.0	214.3	
93 1,1,2,2-Tetrachloroethane	83	11.988	11.988	0.000	94	103797	200.0	190.9	
94 Bromobenzene	156	12.013	12.013	0.000	96	96496	200.0	181.0	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.043	0.000	77	37725	200.0	187.6	
95 1,2,3-Trichloropropane	110	12.043	12.043	0.000	85	31030	200.0	183.7	
97 N-Propylbenzene	120	12.122	12.122	0.000	100	121642	200.0	183.6	
98 2-Chlorotoluene	126	12.213	12.213	0.000	95	99169	200.0	186.6	
99 1,3,5-Trimethylbenzene	105	12.292	12.292	0.000	94	372147	200.0	200.7	
100 4-Chlorotoluene	126	12.317	12.317	0.000	99	104372	200.0	183.2	
101 tert-Butylbenzene	119	12.627	12.627	0.000	93	316750	200.0	196.0	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	98	383822	200.0	202.9	
104 sec-Butylbenzene	105	12.846	12.846	0.000	95	483724	200.0	201.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.962	12.962	0.000	97	192443	200.0	187.0	
106 4-Isopropyltoluene	119	12.992	12.992	0.000	97	384864	200.0	198.7	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	92	190832	200.0	188.7	
110 n-Butylbenzene	91	13.400	13.400	0.000	98	386652	200.0	203.7	
111 1,2-Dichlorobenzene	146	13.424	13.424	0.000	96	175071	200.0	187.3	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.203	0.000	76	15828	200.0	184.2	
114 1,2,4-Trichlorobenzene	180	15.048	15.048	0.000	94	100437	200.0	194.4	
115 Hexachlorobutadiene	225	15.231	15.231	0.000	95	46623	200.0	198.0	
116 Naphthalene	128	15.310	15.310	0.000	97	252872	200.0	197.6	
117 1,2,3-Trichlorobenzene	180	15.571	15.571	0.000	94	84018	200.0	194.8	
S 129 Xylenes, Total	106				0		400.0	399.7	
S 130 1,2-Dichloroethene, Total	96				0		400.0	393.7	
S 131 1,3-Dichloropropene, Total	1				0		400.0	446.4	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR_00024	Amount Added: 8.00	Units: uL	
VOAACROPRI_00002	Amount Added: 35.00	Units: uL	
VOA8260VOAPRI_00084	Amount Added: 8.00	Units: uL	
VOA2CEVEPRI_00008	Amount Added: 8.00	Units: uL	
VOA8260INT_00021	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

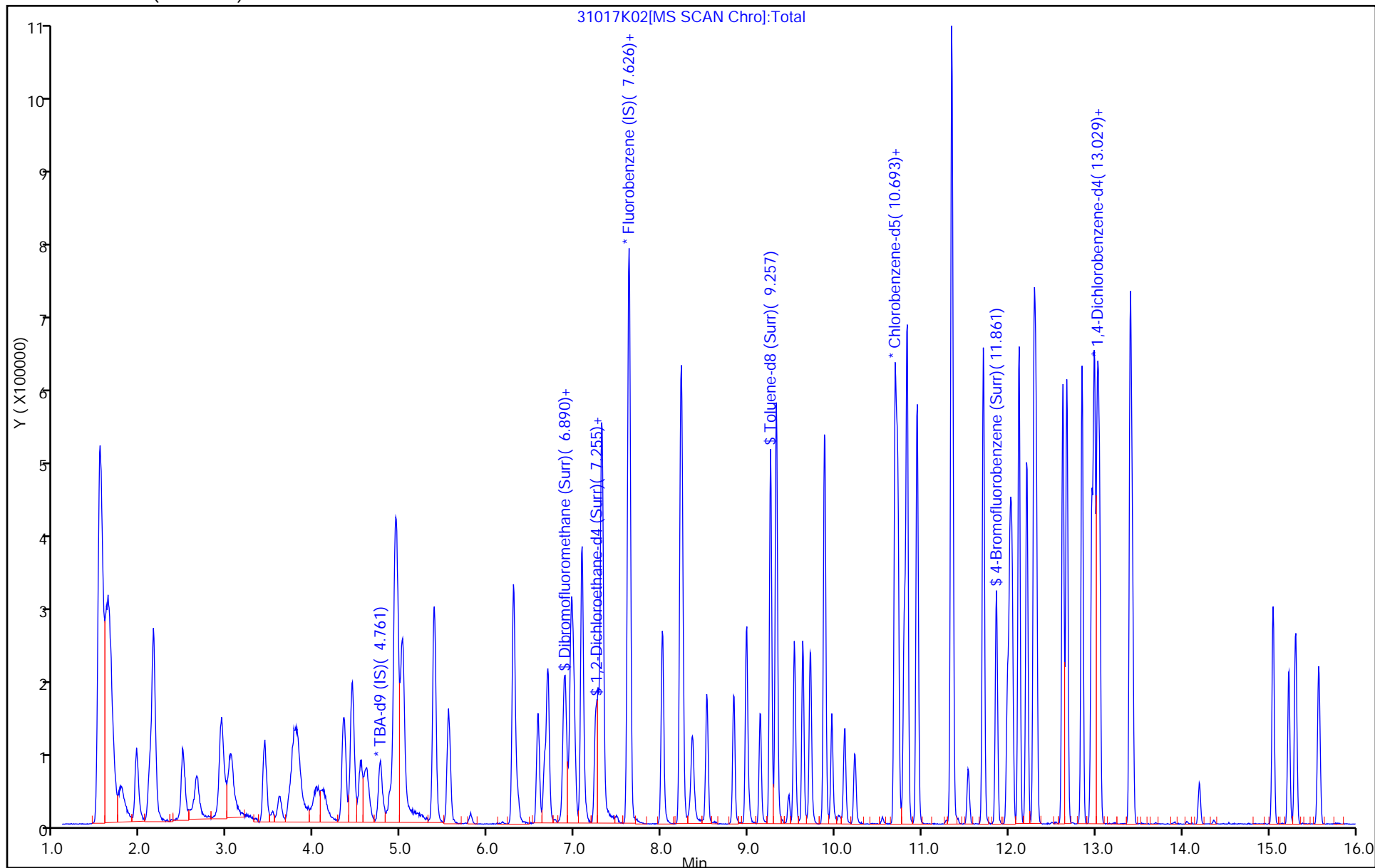
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-121881/2 Calibration Date: 10/17/2014 20:43  
 Instrument ID: CHHP3 Calib Start Date: 09/22/2014 11:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/22/2014 13:30  
 Lab File ID: 31017K02.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2407	0.2967	0.1000	49.3	40.0	23.2*	20.0
Chloromethane	Ave	0.4536	0.4476	0.1000	39.5	40.0	-1.3	20.0
Vinyl chloride	Ave	0.4506	0.4544	0.1000	40.3	40.0	0.9	20.0
1,3-Butadiene	Ave	0.4064	0.4392	0.0100	43.2	40.0	8.1	20.0
Bromomethane	Ave	0.1794	0.2852	0.0500	63.6	40.0	59.0*	20.0
Chloroethane	Ave	0.2253	0.2982	0.0500	52.9	40.0	32.3*	20.0
Dichlorofluoromethane	Ave	0.4671	0.5901	0.0100	50.5	40.0	26.3*	20.0
Trichlorofluoromethane	Ave	0.2935	0.4006	0.1000	54.6	40.0	36.5*	20.0
Ethyl ether	Ave	0.2756	0.2972	0.0100	43.1	40.0	7.9	20.0
Acrolein	Ave	0.0354	0.0379	0.0100	188	175	7.2	20.0
1,1-Dichloroethene	Ave	0.2409	0.2470	0.1000	41.0	40.0	2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2180	0.2285	0.1000	41.9	40.0	4.8	20.0
Acetone	Qua		0.1024	0.0500	30.1	40.0	-24.7*	20.0
Iodomethane	Ave	0.3273	0.3118	0.0100	38.1	40.0	-4.8	20.0
Carbon disulfide	Ave	0.6370	0.6313	0.1000	39.6	40.0	-0.9	20.0
Allyl chloride	Ave	0.1748	0.1503	0.0100	34.4	40.0	-14.0	20.0
Methyl acetate	Ave	0.2762	0.2151	0.1000	156	200	-22.1*	20.0
Methylene Chloride	Lin1		0.3000	0.1000	42.0	40.0	5.0	20.0
tert-Butyl alcohol	Ave	1.307	1.330	0.0100	407	400	1.8	20.0
Acrylonitrile	Ave	0.1273	0.1127	0.0100	354	400	-11.5	20.0
trans-1,2-Dichloroethene	Ave	0.2590	0.2551	0.1000	39.4	40.0	-1.5	20.0
Methyl tert-butyl ether	Ave	0.6539	0.7721	0.1000	47.2	40.0	18.1	20.0
Hexane	Ave	0.5639	0.5353	0.0100	38.0	40.0	-5.1	20.0
1,1-Dichloroethane	Ave	0.5173	0.5723	0.2000	44.3	40.0	10.6	20.0
2,2-Dichloropropane	Ave	0.1952	0.2135	0.0100	43.7	40.0	9.4	20.0
cis-1,2-Dichloroethene	Ave	0.2891	0.2845	0.1000	39.4	40.0	-1.6	20.0
2-Butanone (MEK)	Ave	0.1959	0.1476	0.0500	30.1	40.0	-24.7*	20.0
Chlorobromomethane	Ave	0.1175	0.1125	0.0100	38.3	40.0	-4.2	20.0
Tetrahydrofuran	Ave	0.1140	0.0921	0.0100	64.6	80.0	-19.3	20.0
Chloroform	Ave	0.4065	0.4752	0.2000	46.8	40.0	16.9	20.0
1,1,1-Trichloroethane	Ave	0.2838	0.3294	0.1000	46.4	40.0	16.1	20.0
Cyclohexane	Ave	0.6135	0.6407	0.1000	41.8	40.0	4.4	20.0
1,1-Dichloropropene	Ave	0.3327	0.3694	0.0100	44.4	40.0	11.0	20.0
Carbon tetrachloride	Ave	0.2275	0.2722	0.1000	47.9	40.0	19.7	20.0
Isobutyl alcohol	Ave	0.0106	0.0086*	0.0100	810	1000	-19.0	20.0
Benzene	Ave	1.075	1.084	0.5000	40.3	40.0	0.8	20.0
1,2-Dichloroethane	Ave	0.3083	0.3991	0.1000	51.8	40.0	29.5*	20.0
n-Heptane	Ave	0.5189	0.5331	0.0100	41.1	40.0	2.7	20.0
Trichloroethene	Ave	0.2572	0.2413	0.2000	37.5	40.0	-6.2	20.0
Methylcyclohexane	Ave	0.4965	0.5258	0.1000	42.4	40.0	5.9	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-121881/2 Calibration Date: 10/17/2014 20:43  
 Instrument ID: CHHP3 Calib Start Date: 09/22/2014 11:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/22/2014 13:30  
 Lab File ID: 31017K02.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3109	0.3182	0.1000	40.9	40.0	2.3	20.0
Dibromomethane	Ave	0.1334	0.1332	0.0100	40.0	40.0	-0.1	20.0
1,4-Dioxane	Ave	0.0025	0.0022*	0.0100	708	800	-11.5	20.0
Dichlorobromomethane	Ave	0.2835	0.3219	0.2000	45.4	40.0	13.5	20.0
cis-1,3-Dichloropropene	Ave	0.3971	0.4362	0.2000	43.9	40.0	9.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.357	1.277	0.1000	37.6	40.0	-5.9	20.0
Toluene	Ave	4.780	4.988	0.4000	41.7	40.0	4.4	20.0
trans-1,3-Dichloropropene	Ave	1.388	1.573	0.1000	45.3	40.0	13.3	20.0
Ethyl methacrylate	Ave	1.414	1.528	0.0100	43.2	40.0	8.0	20.0
1,1,2-Trichloroethane	Ave	0.9539	0.9412	0.1000	39.5	40.0	-1.3	20.0
Tetrachloroethene	Ave	0.8733	0.8388	0.2000	38.4	40.0	-3.9	20.0
1,3-Dichloropropane	Ave	1.715	1.846	0.0100	43.1	40.0	7.6	20.0
2-Hexanone	Ave	1.183	1.249	0.1000	42.2	40.0	5.5	20.0
Chlorodibromomethane	Ave	0.7745	0.8395	0.1000	43.4	40.0	8.4	20.0
1,2-Dibromoethane	Ave	0.9013	0.9353	0.1000	41.5	40.0	3.8	20.0
Chlorobenzene	Ave	2.985	3.044	0.5000	40.8	40.0	2.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8708	0.9556	0.0100	43.9	40.0	9.7	20.0
Ethylbenzene	Ave	1.702	1.719	0.1000	40.4	40.0	1.0	20.0
m-Xylene & p-Xylene	Ave	2.063	2.032	0.1000	39.4	40.0	-1.5	20.0
o-Xylene	Ave	2.030	2.058	0.3000	40.5	40.0	1.4	20.0
Styrene	Ave	3.434	3.632	0.3000	42.3	40.0	5.8	20.0
Bromoform	Ave	0.4723	0.4602	0.1000	39.0	40.0	-2.6	20.0
Isopropylbenzene	Ave	5.042	5.403	0.1000	42.9	40.0	7.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.230	1.174	0.3000	38.2	40.0	-4.5	20.0
Bromobenzene	Ave	0.8243	0.7461	0.0100	36.2	40.0	-9.5	20.0
1,2,3-Trichloropropane	Ave	0.2612	0.2399	0.0100	36.7	40.0	-8.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3110	0.2917	0.0100	37.5	40.0	-6.2	20.0
N-Propylbenzene	Ave	1.024	0.9405	0.0100	36.7	40.0	-8.2	20.0
2-Chlorotoluene	Ave	0.8220	0.7668	0.0100	37.3	40.0	-6.7	20.0
1,3,5-Trimethylbenzene	Ave	2.868	2.877	0.0100	40.1	40.0	0.3	20.0
4-Chlorotoluene	Ave	0.8812	0.8070	0.0100	36.6	40.0	-8.4	20.0
tert-Butylbenzene	Ave	2.499	2.449	0.0100	39.2	40.0	-2.0	20.0
1,2,4-Trimethylbenzene	Ave	2.926	2.968	0.0100	40.6	40.0	1.4	20.0
sec-Butylbenzene	Ave	3.720	3.740	0.0100	40.2	40.0	0.5	20.0
1,3-Dichlorobenzene	Ave	1.591	1.488	0.6000	37.4	40.0	-6.5	20.0
4-Isopropyltoluene	Ave	2.995	2.976	0.0100	39.7	40.0	-0.7	20.0
1,4-Dichlorobenzene	Ave	1.564	1.475	0.5000	37.7	40.0	-5.6	20.0
n-Butylbenzene	Ave	2.935	2.990	0.0100	40.7	40.0	1.9	20.0
1,2-Dichlorobenzene	Ave	1.445	1.354	0.4000	37.5	40.0	-6.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1329	0.1224	0.0500	36.8	40.0	-7.9	20.0
1,2,4-Trichlorobenzene	Ave	0.7988	0.7766	0.2000	38.9	40.0	-2.8	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-121881/2 Calibration Date: 10/17/2014 20:43  
 Instrument ID: CHHP3 Calib Start Date: 09/22/2014 11:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/22/2014 13:30  
 Lab File ID: 31017K02.D Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	0.3642	0.3605	0.0100	39.6	40.0	-1.0	20.0
Naphthalene	Ave	1.979	1.955	0.0100	39.5	40.0	-1.2	20.0
1,2,3-Trichlorobenzene	Ave	0.6671	0.6496	0.0100	39.0	40.0	-2.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2103	0.2035		38.7	40.0	-3.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2458	0.2975		48.4	40.0	21.0*	20.0
Toluene-d8 (Surr)	Ave	4.162	4.152		39.9	40.0	-0.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.461	1.491		40.8	40.0	2.0	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 17-Oct-2014 20:43:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Operator ID: 10099 Instrument ID: CHHP3  
 Sublist: chrom-MSVOA\_S\_CHHP3\*sub20  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 20:51:07 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 20:40:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.761	4.761	0.000	96	155243	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.620	7.620	0.000	96	482998	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	91	110502	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	96	161668	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.866	6.866	0.000	92	78626	200.0	193.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.243	7.243	0.000	92	114955	200.0	242.1	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	94	367032	200.0	199.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	86	131793	200.0	204.1	
10 Dichlorodifluoromethane	85	1.780	1.780	0.000	98	114628	200.0	246.5	
11 Chloromethane	50	1.951	1.951	0.000	99	172944	200.0	197.4	
12 Vinyl chloride	62	2.103	2.103	0.000	98	175589	200.0	201.7	
13 Butadiene	39	2.151	2.151	0.000	91	169706	200.0	216.2	
14 Bromomethane	94	2.486	2.486	0.000	88	110204	200.0	318.0	
15 Chloroethane	64	2.638	2.638	0.000	100	115215	200.0	264.6	
16 Dichlorofluoromethane	67	2.930	2.930	0.000	98	228030	200.0	252.7	
17 Trichlorofluoromethane	101	3.009	3.009	0.000	90	154799	200.0	273.0	M
19 Ethyl ether	59	3.429	3.429	0.000	97	114846	200.0	215.7	
20 Acrolein	56	3.593	3.593	0.000	98	64104	875.0	937.8	
21 1,1-Dichloroethene	96	3.770	3.770	0.000	93	95434	200.0	205.0	M
22 1,1,2-Trichloro-1,2,2-trif	101	3.812	3.812	0.000	97	88306	200.0	209.7	
23 Acetone	43	3.891	3.891	0.000	91	39581	200.0	150.7	
24 Iodomethane	142	3.995	3.995	0.000	98	120459	200.0	190.5	M
25 Carbon disulfide	76	4.092	4.092	0.000	100	243916	200.0	198.2	M
28 3-Chloro-1-propene	76	4.335	4.335	0.000	90	58065	200.0	171.9	
29 Methyl acetate	43	4.439	4.439	0.000	99	415536	1000.0	778.7	
30 Methylene Chloride	84	4.530	4.530	0.000	98	115923	200.0	210.0	
31 2-Methyl-2-propanol	59	4.877	4.877	0.000	97	82587	2000.0	2035.2	
32 Acrylonitrile	53	4.931	4.931	0.000	98	435486	2000.0	1770.6	
33 trans-1,2-Dichloroethene	96	4.962	4.962	0.000	93	98560	200.0	196.9	
34 Methyl tert-butyl ether	73	5.017	5.017	0.000	99	298335	200.0	236.2	
35 Hexane	57	5.382	5.382	0.000	93	206846	200.0	189.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.546	5.546	0.000	96	221142	200.0	221.3	
41 2,2-Dichloropropane	77	6.294	6.294	0.000	52	82479	200.0	218.7	
42 cis-1,2-Dichloroethene	96	6.300	6.300	0.000	87	109924	200.0	196.8	
43 2-Butanone (MEK)	43	6.343	6.343	0.000	99	57021	200.0	150.6	
47 Chlorobromomethane	128	6.580	6.580	0.000	88	43484	200.0	191.6	
48 Tetrahydrofuran	42	6.653	6.653	0.000	92	71141	400.0	322.9	
49 Chloroform	83	6.690	6.690	0.000	96	183631	200.0	233.8	
50 1,1,1-Trichloroethane	97	6.890	6.890	0.000	96	127262	200.0	232.1	
51 Cyclohexane	56	6.963	6.963	0.000	93	247545	200.0	208.8	
52 1,1-Dichloropropene	75	7.079	7.079	0.000	91	142726	200.0	222.0	
53 Carbon tetrachloride	117	7.091	7.091	0.000	71	105187	200.0	239.3	
54 Isobutyl alcohol	41	7.268	7.268	0.000	97	82626	5000.0	4050.6	
55 Benzene	78	7.310	7.310	0.000	97	418799	200.0	201.7	
56 1,2-Dichloroethane	62	7.322	7.322	0.000	95	154206	200.0	258.9	
59 n-Heptane	43	7.633	7.633	0.000	94	205975	200.0	205.5	
60 Trichloroethene	130	8.010	8.010	0.000	95	93252	200.0	187.7	
63 Methylcyclohexane	83	8.223	8.223	0.000	96	203162	200.0	211.8	
64 1,2-Dichloropropane	63	8.241	8.241	0.000	95	122931	200.0	204.7	
65 Dibromomethane	93	8.350	8.350	0.000	97	51474	200.0	199.8	
67 1,4-Dioxane	88	8.381	8.381	0.000	93	16787	4000.0	3541.7	
68 Dichlorobromomethane	83	8.521	8.521	0.000	97	124361	200.0	227.1	
70 2-Chloroethyl vinyl ether	63	8.837	8.837	0.000	92	85936	400.0	504.3	
71 cis-1,3-Dichloropropene	75	8.983	8.983	0.000	92	168548	200.0	219.7	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.135	0.000	96	112900	200.0	188.2	
73 Toluene	91	9.324	9.324	0.000	98	440957	200.0	208.7	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	97	139072	200.0	226.7	
75 Ethyl methacrylate	69	9.628	9.628	0.000	93	135068	200.0	216.0	
76 1,1,2-Trichloroethane	97	9.719	9.719	0.000	93	83200	200.0	197.3	
77 Tetrachloroethene	164	9.877	9.877	0.000	95	74151	200.0	192.1	
78 1,3-Dichloropropane	76	9.883	9.883	0.000	96	163206	200.0	215.3	
79 2-Hexanone	43	9.963	9.963	0.000	96	110397	200.0	211.1	
81 Chlorodibromomethane	129	10.115	10.115	0.000	91	74214	200.0	216.8	
82 Ethylene Dibromide	107	10.224	10.224	0.000	95	82684	200.0	207.5	
83 Chlorobenzene	112	10.723	10.723	0.000	90	269134	200.0	204.0	
85 1,1,1,2-Tetrachloroethane	131	10.802	10.802	0.000	94	84477	200.0	219.5	
86 Ethylbenzene	106	10.832	10.832	0.000	99	151967	200.0	202.0	
87 m-Xylene & p-Xylene	106	10.948	10.948	0.000	99	179637	200.0	197.0	
88 o-Xylene	106	11.343	11.343	0.000	98	181927	200.0	202.7	
89 Styrene	104	11.356	11.356	0.000	95	321098	200.0	211.6	
90 Bromoform	173	11.532	11.532	0.000	94	40681	200.0	194.9	
91 Isopropylbenzene	105	11.708	11.708	0.000	96	477637	200.0	214.3	
93 1,1,2,2-Tetrachloroethane	83	11.988	11.988	0.000	94	103797	200.0	190.9	
94 Bromobenzene	156	12.013	12.013	0.000	96	96496	200.0	181.0	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.043	0.000	77	37725	200.0	187.6	
95 1,2,3-Trichloropropane	110	12.043	12.043	0.000	85	31030	200.0	183.7	
97 N-Propylbenzene	120	12.122	12.122	0.000	100	121642	200.0	183.6	
98 2-Chlorotoluene	126	12.213	12.213	0.000	95	99169	200.0	186.6	
99 1,3,5-Trimethylbenzene	105	12.292	12.292	0.000	94	372147	200.0	200.7	
100 4-Chlorotoluene	126	12.317	12.317	0.000	99	104372	200.0	183.2	
101 tert-Butylbenzene	119	12.627	12.627	0.000	93	316750	200.0	196.0	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	98	383822	200.0	202.9	
104 sec-Butylbenzene	105	12.846	12.846	0.000	95	483724	200.0	201.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 1,3-Dichlorobenzene	146	12.962	12.962	0.000	97	192443	200.0	187.0	
106 4-Isopropyltoluene	119	12.992	12.992	0.000	97	384864	200.0	198.7	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	92	190832	200.0	188.7	
110 n-Butylbenzene	91	13.400	13.400	0.000	98	386652	200.0	203.7	
111 1,2-Dichlorobenzene	146	13.424	13.424	0.000	96	175071	200.0	187.3	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.203	0.000	76	15828	200.0	184.2	
114 1,2,4-Trichlorobenzene	180	15.048	15.048	0.000	94	100437	200.0	194.4	
115 Hexachlorobutadiene	225	15.231	15.231	0.000	95	46623	200.0	198.0	
116 Naphthalene	128	15.310	15.310	0.000	97	252872	200.0	197.6	
117 1,2,3-Trichlorobenzene	180	15.571	15.571	0.000	94	84018	200.0	194.8	
S 129 Xylenes, Total	106				0		400.0	399.7	
S 130 1,2-Dichloroethene, Total	96				0		400.0	393.7	
S 131 1,3-Dichloropropene, Total	1				0		400.0	446.4	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR_00024	Amount Added: 8.00	Units: uL	
VOAACROPRI_00002	Amount Added: 35.00	Units: uL	
VOA8260VOAPRI_00084	Amount Added: 8.00	Units: uL	
VOA2CEVEPRI_00008	Amount Added: 8.00	Units: uL	
VOA8260INT_00021	Amount Added: 10.00	Units: uL	Run Reagent



Report Date: 17-Oct-2014 20:51:09

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

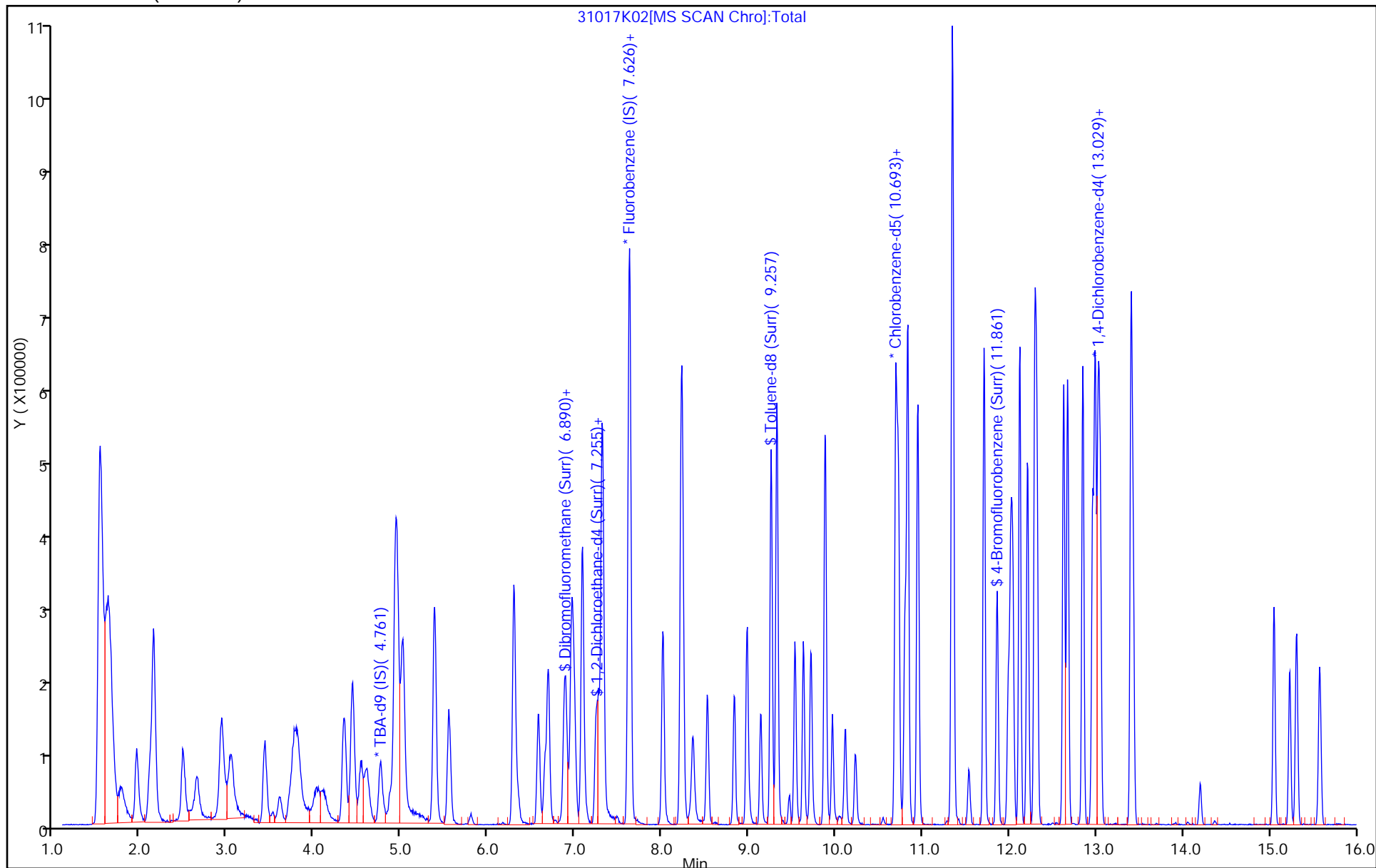
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Lims ID: CCVIS

Client ID:

Operator ID: 10099

ALS Bottle#:

2

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

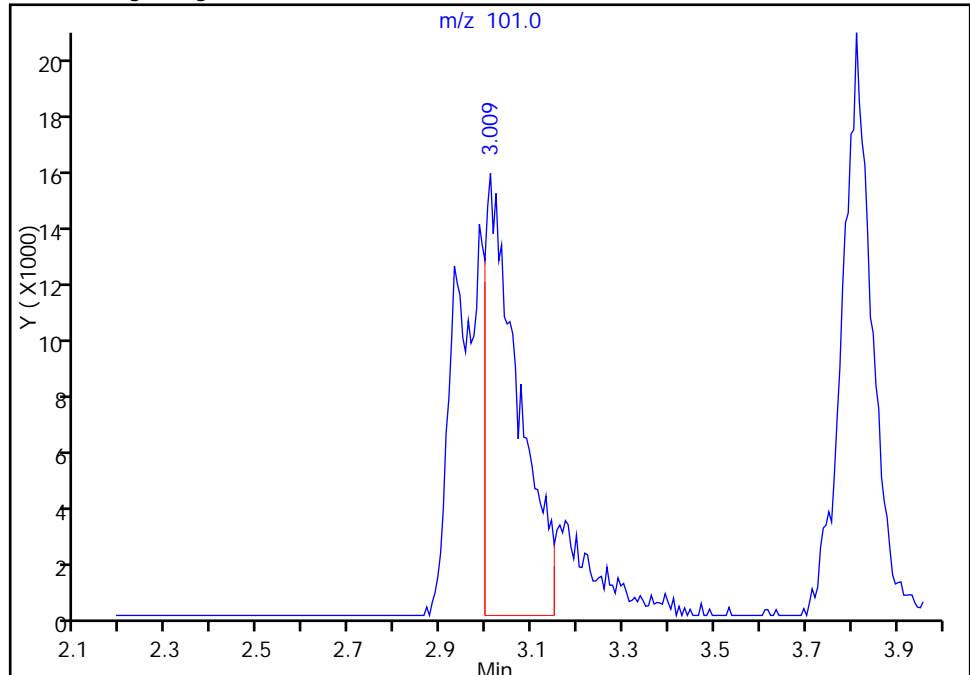
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 17 Trichlorofluoromethane, CAS: 75-69-4

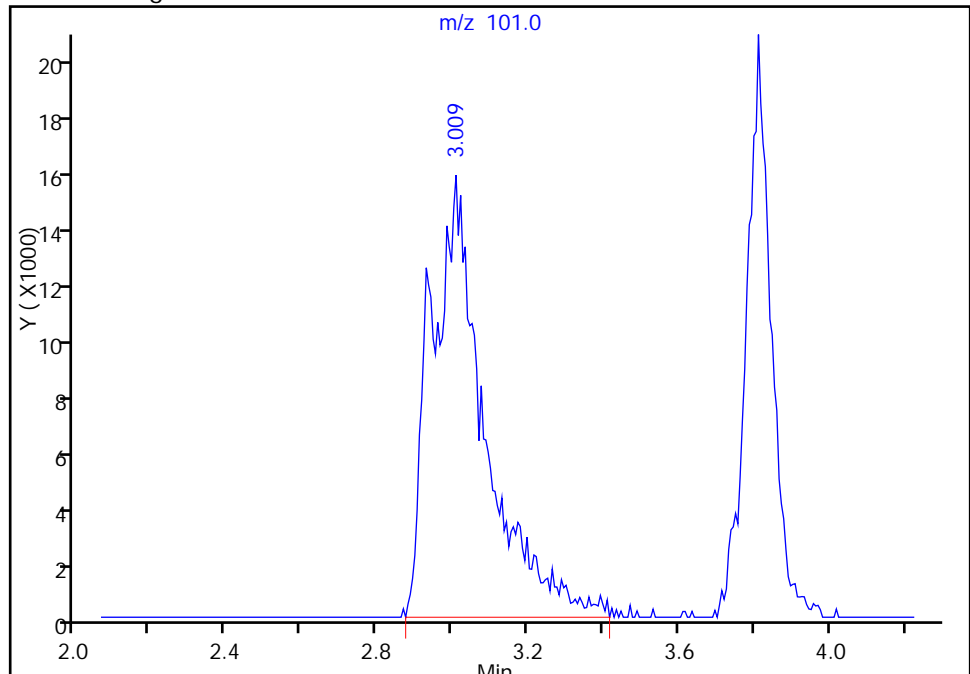
RT: 3.01  
Response: 78102  
Amount: 137.7453

## Processing Integration Results



RT: 3.01  
Response: 154799  
Amount: 273.0126

## Manual Integration Results



Reviewer: gordonk, 17-Oct-2014 20:40:03

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Lims ID: CCVIS

Client ID:

Operator ID: 10099

ALS Bottle#:

2

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

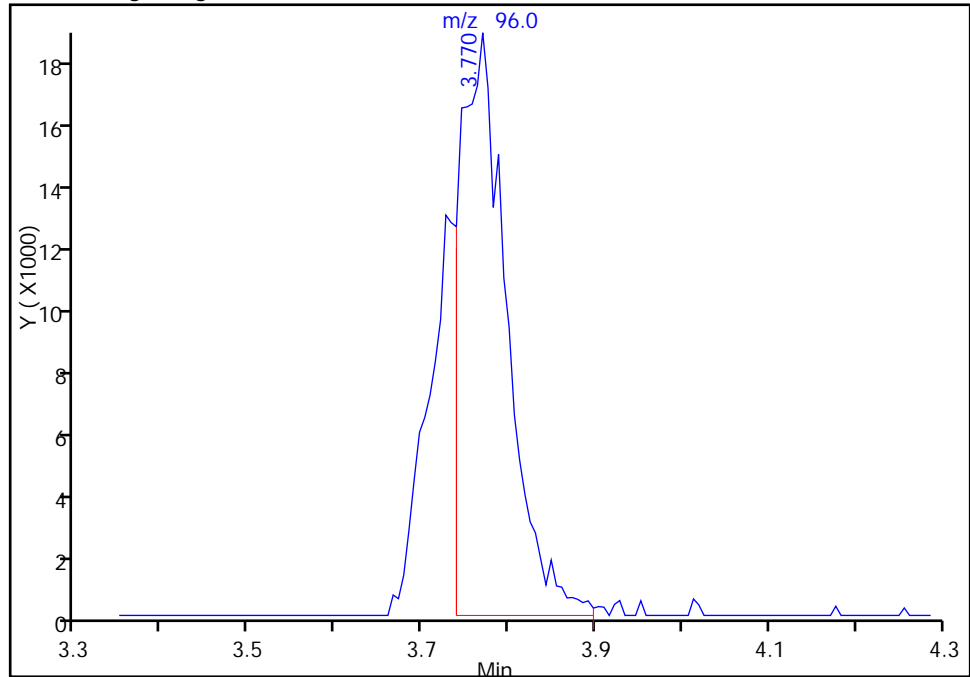
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 21 1,1-Dichloroethene, CAS: 75-35-4

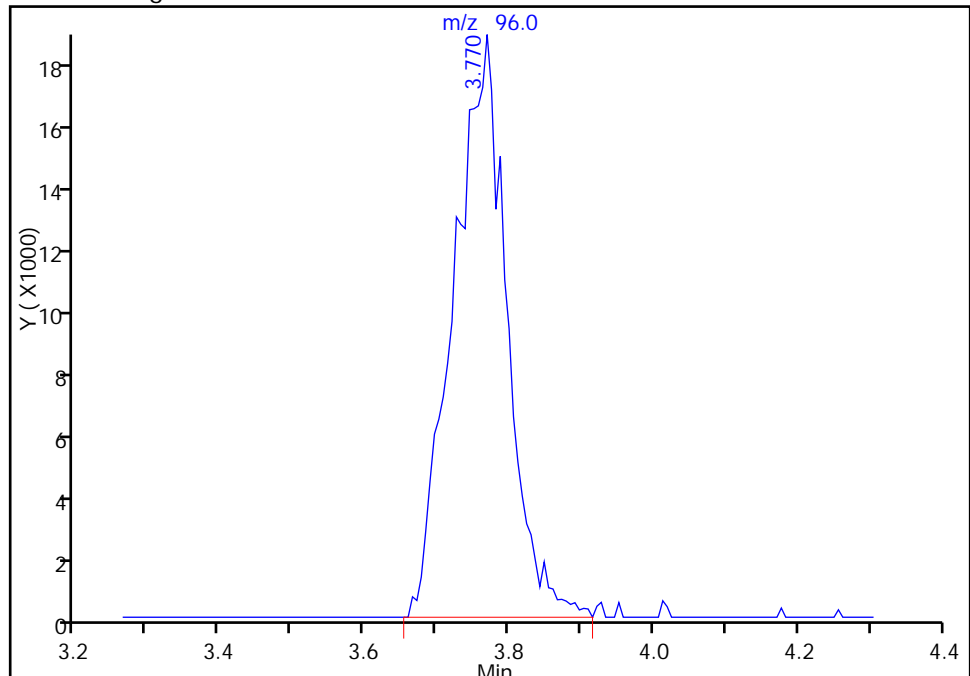
RT: 3.77  
Response: 69286  
Amount: 148.8466

## Processing Integration Results



RT: 3.77  
Response: 95434  
Amount: 205.0201

## Manual Integration Results



Reviewer: gordonk, 17-Oct-2014 20:40:03

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Lims ID: CCVIS

Client ID:

Operator ID: 10099

ALS Bottle#:

2

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

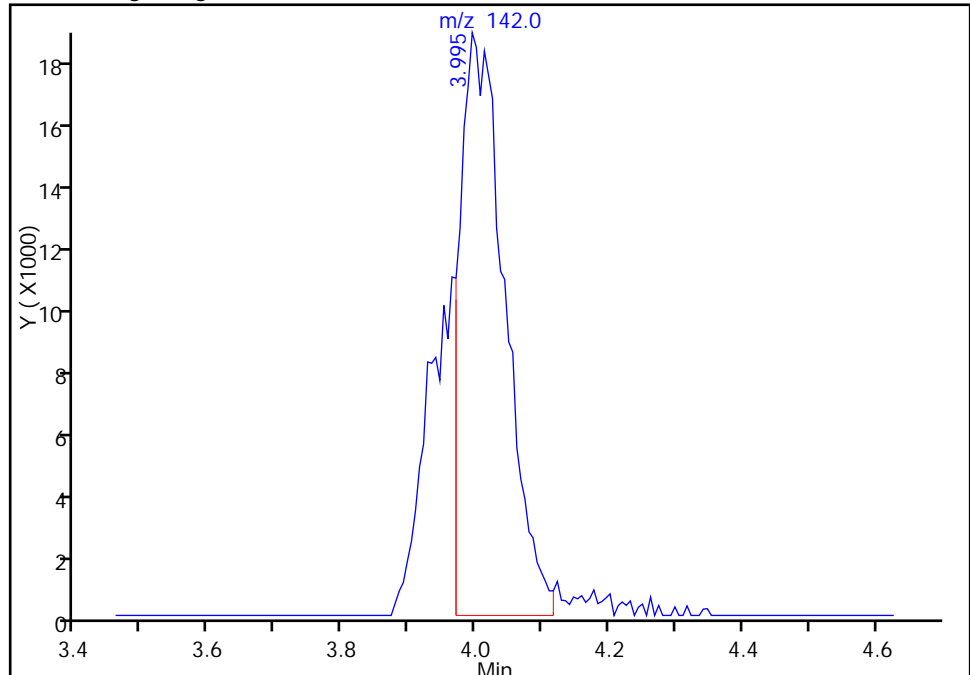
Column: DB-624 (0.18 mm)

Detector: MS SCAN

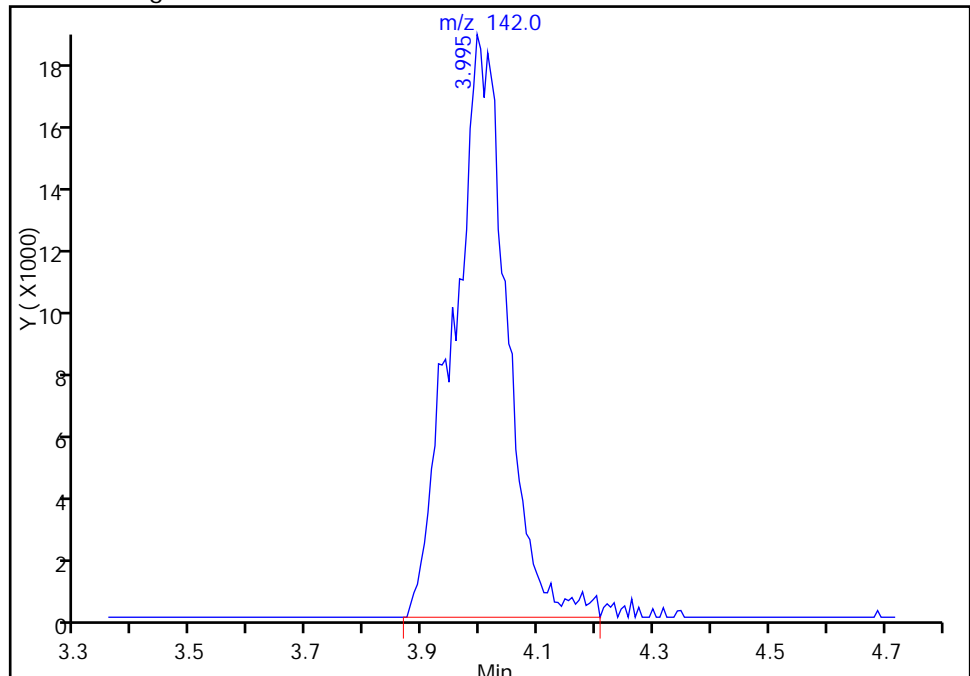
## 24 Iodomethane, CAS: 74-88-4

RT: 3.99  
Response: 87441  
Amount: 138.2653

## Processing Integration Results

RT: 3.99  
Response: 120459  
Amount: 190.4748

## Manual Integration Results



Reviewer: gordonk, 17-Oct-2014 20:40:03

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K02.D

Injection Date: 17-Oct-2014 20:43:30

Instrument ID: CHHP3

Lims ID: CCVIS

Client ID:

Operator ID: 10099

ALS Bottle#:

2

Worklist Smp#: 2

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

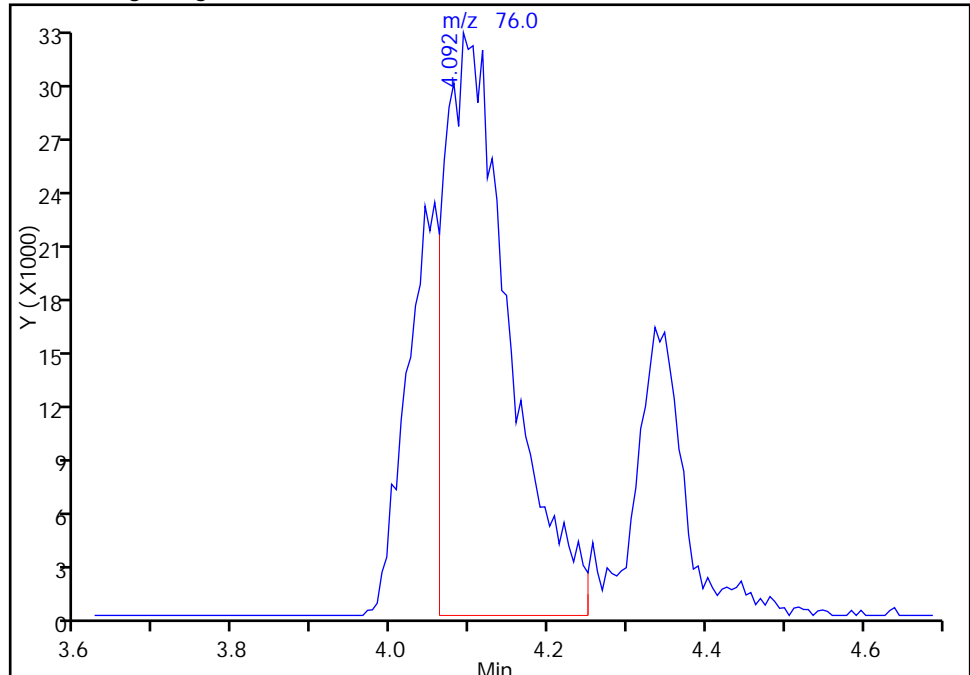
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 25 Carbon disulfide, CAS: 75-15-0

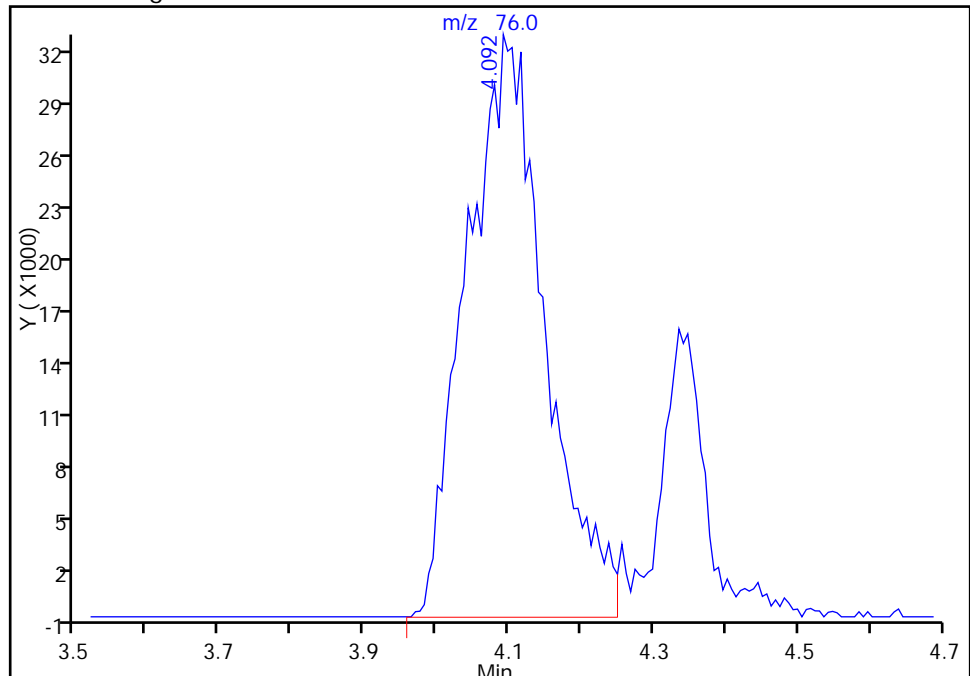
RT: 4.09  
Response: 184351  
Amount: 149.7883

## Processing Integration Results



RT: 4.09  
Response: 243916  
Amount: 198.1858

## Manual Integration Results



Reviewer: gordonk, 17-Oct-2014 20:40:03

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

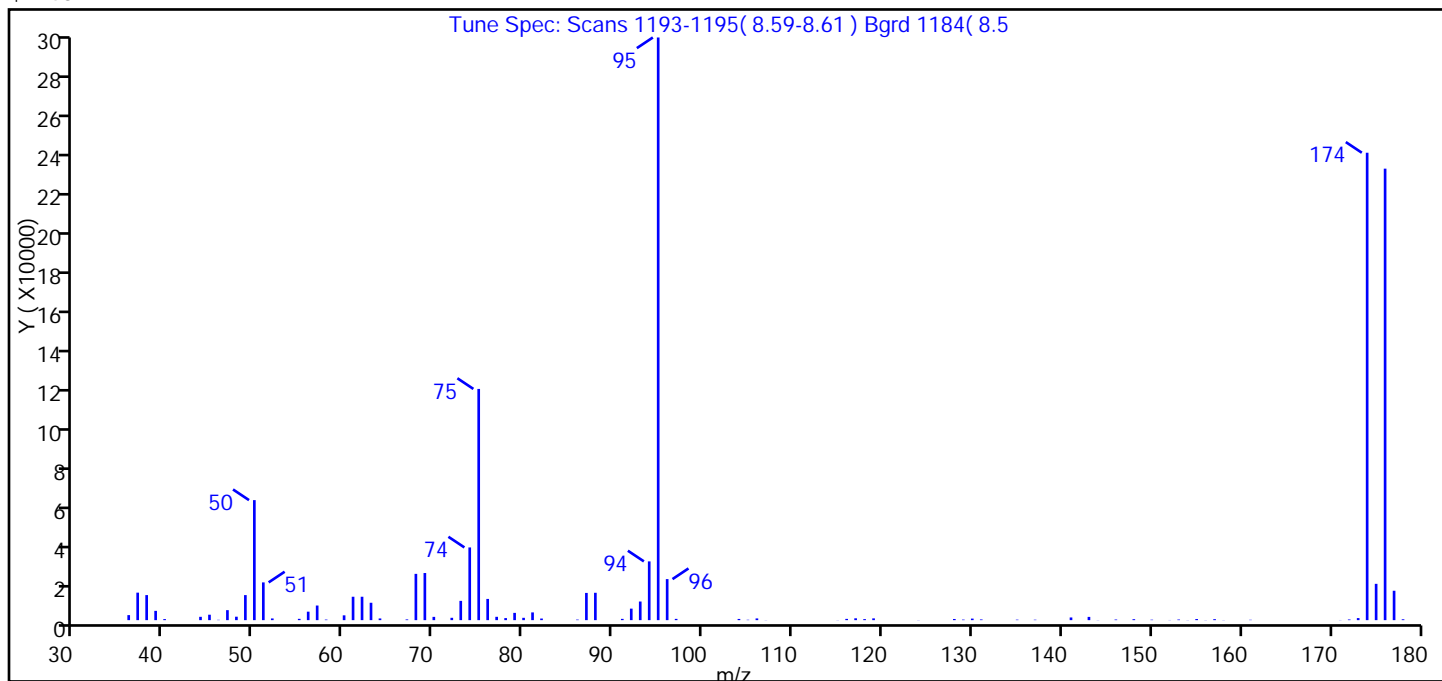
Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\303070A1.D  
Lims ID: bfb  
Client ID:  
Sample Type: BFB  
Inject. Date: 07-Mar-2014 05:23:30 ALS Bottle#: 2 Worklist Smp#: 1  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Sample Info: BFB  
Misc. Info.: 3030714d.b,Tbfb.m =3030714D.B,TBFB.M  
Operator ID: 10099 Instrument ID: CHHP3  
Method: \\PITCHROM\ChromData\CHHP3\20140307-141.b\MSVOA\_S\_CHHP3.m  
Limit Group: VOA 8260C ICAL  
Last Update: 10-Mar-2014 04:50:26 Calib Date: 07-Mar-2014 08:21:30  
Integrator: RTE ID Type: Deconvolution ID  
Quant Method: Internal Standard Quant By: Initial Calibration  
Last ICal File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\3030708.D  
Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
Process Host: XAWRK005

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng	Flags
\$ 140 BFB	95	8.601	8.601	0.0	0	528896	NR	

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\303070A1.D  
Injection Date: 07-Mar-2014 05:23:30 Instrument ID: CHHP3  
Lims ID: bfb  
Client ID:  
Operator ID: 10099 ALS Bottle#: 2 Worklist Smp#: 1  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_S\_CHHP3 Limit Group: VOA 8260C ICAL  
Tune Method: BFB Method 8260

\$ 140 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.60
75	30.00 - 60.00% of mass 95	39.70
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.40 ( 0.40)
174	50.00 - 120.00% of mass 95	80.20
175	5.00 - 9.00% of mass 174	6.20 ( 7.80)
176	95.00 - 101.00% of mass 174	77.50 ( 96.60)
177	5.00 - 9.00% of mass 176	5.00 ( 6.50)

Data File: \\PITCHROM\ChromData\CHHP3\20140307-141.b\303070A1.D\MSVOA\_S\_CHHP3.rsl\spectra.d  
Injection Date: 07-Mar-2014 05:23:30  
Spectrum: Tune Spec: Scans 1193-1195( 8.59-8.61 ) Bgrd 1184( 8.5  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2564	64.00	863	94.00	29984	144.00	69
37.00	14030	67.00	375	95.00	297344	146.00	317
38.00	12785	68.00	23616	96.00	20944	148.00	484
39.00	4737	69.00	24048	97.00	644	150.00	231
40.00	541	70.00	1671	104.00	611	152.00	84
44.00	1698	72.00	1196	105.00	196	153.00	318
45.00	2772	73.00	9834	106.00	874	154.00	68
46.00	164	74.00	37104	107.00	66	155.00	567
47.00	5099	75.00	117992	115.00	67	156.00	74
48.00	1757	76.00	10825	116.00	641	157.00	497
49.00	12779	77.00	1702	117.00	941	158.00	75
50.00	61248	78.00	1048	118.00	527	161.00	183
51.00	19264	79.00	3709	119.00	901	171.00	79
52.00	865	80.00	1191	124.00	72	172.00	344
55.00	667	81.00	3948	128.00	589	173.00	1048
56.00	4322	82.00	823	129.00	277	174.00	238528
57.00	7459	86.00	284	130.00	788	175.00	18528
58.00	289	87.00	13891	131.00	357	176.00	230400
60.00	2451	88.00	13964	135.00	255	177.00	15001
61.00	11942	91.00	651	137.00	222	178.00	434
62.00	11942	92.00	5875	141.00	1366		
63.00	8870	93.00	9503	143.00	1655		



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K01.D  
Lims ID: BFB  
Client ID:  
Sample Type: BFB  
Inject. Date: 22-Sep-2014 10:09:30 ALS Bottle#: 1 Worklist Smp#: 1  
Injection Vol: 5.0 mL Dil. Factor: 1.0000  
Sample Info: BFB  
Operator ID: 10099 Instrument ID: CHHP3  
Method: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\MSVOA\_S\_CHHP3.m  
Limit Group: VOA 8260C ICAL  
Last Update: 22-Sep-2014 20:36:39 Calib Date: 22-Sep-2014 13:30:30  
Integrator: RTE ID Type: Deconvolution ID  
Quant Method: Internal Standard Quant By: Initial Calibration  
Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 22-Sep-2014 10:01:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 9 BFB	95	8.598	8.598	0.000	0	399538	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

VOABFB50\_00054

Amount Added: 1.00

Units: uL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K01.D

Injection Date: 22-Sep-2014 10:09:30

Instrument ID: CHHP3

Lims ID: BFB

Client ID:

Operator ID: 10099

ALS Bottle#: 1 Worklist Smp#: 1

Injection Vol: 5.0 mL

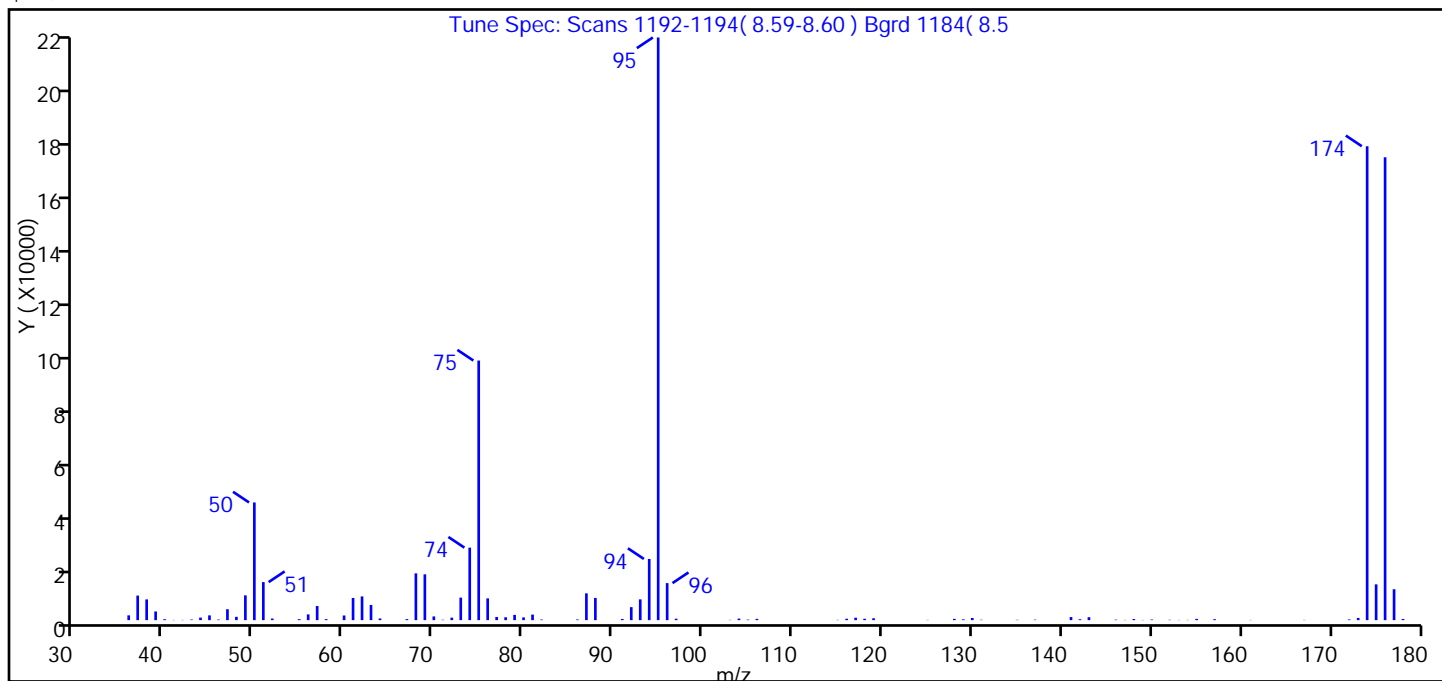
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Tune Method: BFB Method 8260

\$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.20
75	30.00 - 60.00% of mass 95	44.60
96	5.00 - 9.00% of mass 95	6.40
173	Less than 2.00% of mass 174	0.40 ( 0.50)
174	50.00 - 120.00% of mass 95	81.30
175	5.00 - 9.00% of mass 174	6.10 ( 7.60)
176	95.00 - 101.00% of mass 174	79.40 ( 97.70)
177	5.00 - 9.00% of mass 176	5.30 ( 6.70)

Data File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K01.D\MSVOA\_S\_CHHP3.rsl\spectra.d  
Injection Date: 22-Sep-2014 10:09:30  
Spectrum: Tune Spec: Scans 1192-1194( 8.59-8.60 ) Bgrd 1184( 8.5  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1807	62.00	8941	92.00	4898	142.00	338
37.00	9246	63.00	5723	93.00	7827	143.00	1110
38.00	7814	64.00	636	94.00	23048	146.00	189
39.00	3266	67.00	392	95.00	219456	147.00	81
40.00	356	68.00	17624	96.00	13952	148.00	423
41.00	72	69.00	17248	97.00	549	149.00	79
42.00	85	70.00	1398	103.00	94	150.00	230
43.00	223	71.00	150	104.00	588	152.00	133
44.00	964	72.00	947	105.00	211	153.00	72
45.00	1799	73.00	8488	106.00	487	154.00	87
46.00	220	74.00	27304	115.00	108	155.00	482
47.00	4113	75.00	97776	116.00	526	157.00	358
48.00	1250	76.00	8203	117.00	919	161.00	82
49.00	9339	77.00	1196	118.00	526	167.00	87
50.00	44328	78.00	1091	119.00	713	172.00	266
51.00	14335	79.00	1975	125.00	88	173.00	838
52.00	608	80.00	1044	128.00	494	174.00	178496
55.00	378	81.00	2092	129.00	301	175.00	13484
56.00	2163	82.00	228	130.00	822	176.00	174336
57.00	5329	86.00	259	131.00	149	177.00	11644
58.00	394	87.00	10097	135.00	133	178.00	442
60.00	1753	88.00	8362	137.00	174		
61.00	8344	91.00	451	141.00	1165		

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K01.D  
Lims ID: BFB  
Client ID:  
Sample Type: BFB  
Inject. Date: 17-Oct-2014 20:12:30 ALS Bottle#: 1 Worklist Smp#: 1  
Injection Vol: 5.0 mL Dil. Factor: 1.0000  
Sample Info: BFB  
Operator ID: 10099 Instrument ID: CHHP3  
Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
Limit Group: VOA 8260C ICAL  
Last Update: 17-Oct-2014 20:51:02 Calib Date: 22-Sep-2014 13:30:30  
Integrator: RTE ID Type: Deconvolution ID  
Quant Method: Internal Standard Quant By: Initial Calibration  
Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 20:34:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 9 BFB	95	8.601	8.601	0.000	0	330182	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

VOABFB50\_00055

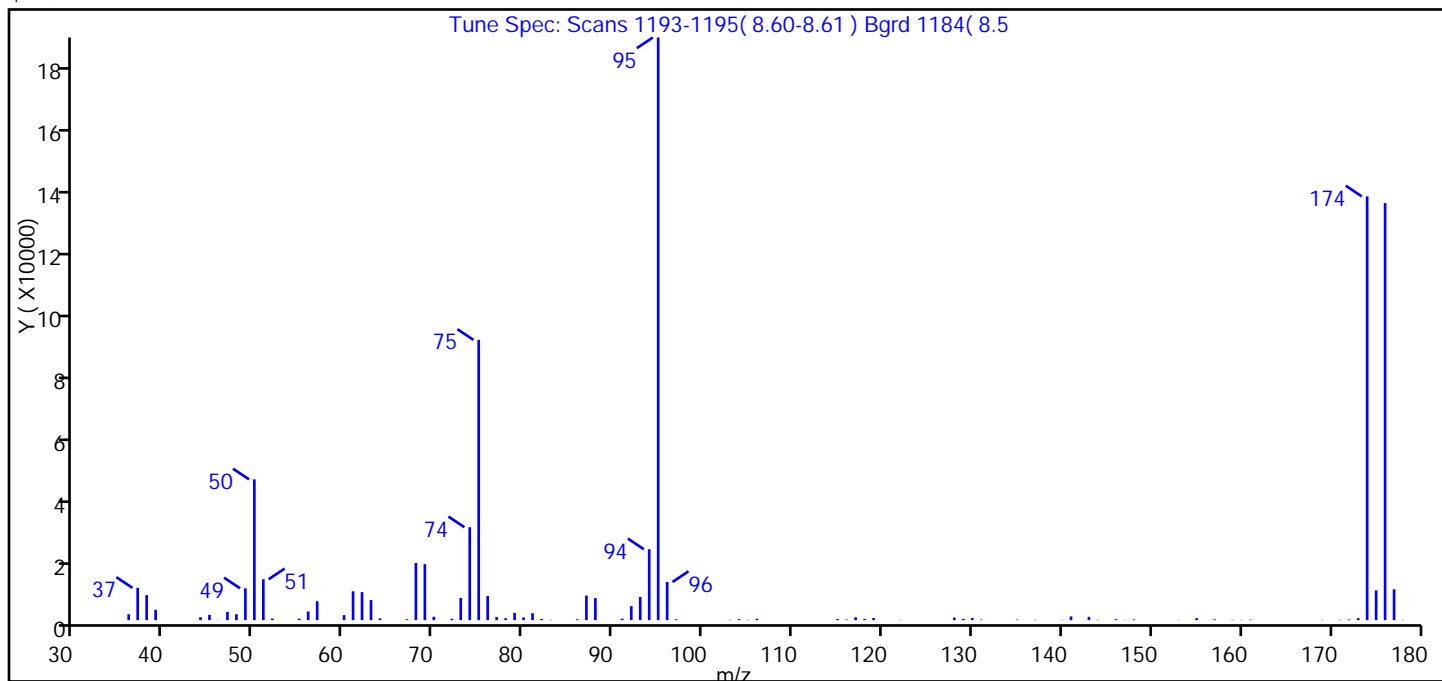
Amount Added: 1.00

Units: uL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K01.D  
Injection Date: 17-Oct-2014 20:12:30 Instrument ID: CHHP3  
Lims ID: BFB  
Client ID:  
Operator ID: 10099 ALS Bottle#: 1 Worklist Smp#: 1  
Injection Vol: 5.0 mL Dil. Factor: 1.0000  
Method: MSVOA\_S\_CHHP3 Limit Group: VOA 8260C ICAL  
Tune Method: BFB Method 8260

\$ 9 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.20
75	30.00 - 60.00% of mass 95	48.10
96	5.00 - 9.00% of mass 95	6.50
173	Less than 2.00% of mass 174	0.30 ( 0.50)
174	50.00 - 120.00% of mass 95	72.70
175	5.00 - 9.00% of mass 174	5.10 ( 7.00)
176	95.00 - 101.00% of mass 174	71.60 ( 98.40)
177	5.00 - 9.00% of mass 176	5.30 ( 7.40)

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K01.D\MSVOA\_S\_CHHP3.rsl\spectra.d  
Injection Date: 17-Oct-2014 20:12:30  
Spectrum: Tune Spec: Scans 1193-1195( 8.60-8.61 ) Bgrd 1184( 8.5  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1867	68.00	18064	95.00	184192	144.00	115
37.00	10219	69.00	17704	96.00	12059	146.00	297
38.00	7907	70.00	1072	97.00	273	147.00	75
39.00	3289	72.00	451	103.00	98	148.00	231
44.00	924	73.00	7027	104.00	325	153.00	69
45.00	1684	74.00	29376	105.00	116	155.00	638
46.00	68	75.00	88608	106.00	454	157.00	258
47.00	2592	76.00	7662	115.00	351	159.00	100
48.00	1865	77.00	984	116.00	190	160.00	73
49.00	10065	78.00	598	117.00	900	161.00	164
50.00	44504	79.00	2278	118.00	376	169.00	91
51.00	12929	80.00	866	119.00	677	171.00	119
52.00	509	81.00	2169	122.00	82	172.00	227
55.00	464	82.00	355	128.00	814	173.00	639
56.00	2760	83.00	78	129.00	413	174.00	133952
57.00	5997	86.00	273	130.00	649	175.00	9411
60.00	1571	87.00	7760	131.00	172	176.00	131840
61.00	9117	88.00	6986	135.00	171	177.00	9742
62.00	8865	91.00	454	137.00	112	178.00	97
63.00	6368	92.00	4419	140.00	86		
64.00	548	93.00	7307	141.00	1163		
67.00	303	94.00	22408	143.00	1047		

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-121882/1-A

Matrix: Sediment Lab File ID: 31017K03.D

Analysis Method: 8260C Date Collected: \_\_\_\_\_

Sample wt/vol: 5.00(g) Date Analyzed: 10/17/2014 21:25

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: \_\_\_\_\_ Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.49
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.72
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.83
75-34-3	1,1-Dichloroethane	ND		5.0	0.58
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.80
107-06-2	1,2-Dichloroethane	ND		5.0	0.61
78-87-5	1,2-Dichloropropane	ND		5.0	0.54
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.66
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.64
110-75-8	2-Chloroethyl vinyl ether	ND		10	0.77
107-02-8	Acrolein	ND		100	7.0
107-13-1	Acrylonitrile	ND		100	10
71-43-2	Benzene	ND		5.0	0.68
75-25-2	Bromoform	ND		5.0	0.44
74-83-9	Bromomethane	ND		5.0	0.74
56-23-5	Carbon tetrachloride	ND		5.0	0.45
108-90-7	Chlorobenzene	ND		5.0	0.76
67-66-3	Chloroform	ND		5.0	0.58
74-87-3	Chloromethane	ND		5.0	0.85
124-48-1	Chlorodibromomethane	ND		5.0	0.71
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.68
75-27-4	Dichlorobromomethane	ND		5.0	0.56
100-41-4	Ethylbenzene	ND		5.0	0.64
75-09-2	Methylene Chloride	ND		5.0	0.67
127-18-4	Tetrachloroethene	ND		5.0	0.68
108-88-3	Toluene	1.22	J	5.0	0.73
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.60
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.60
79-01-6	Trichloroethene	ND		5.0	0.66
75-01-4	Vinyl chloride	ND		5.0	0.47
75-00-3	Chloroethane	ND		5.0	1.5

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-121882/1-A  
Matrix: Sediment Lab File ID: 31017K03.D  
Analysis Method: 8260C Date Collected: \_\_\_\_\_  
Sample wt/vol: 5.00(g) Date Analyzed: 10/17/2014 21:25  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		52-124
460-00-4	4-Bromofluorobenzene (Surr)	92		63-120
1868-53-7	Dibromofluoromethane (Surr)	89		68-121
2037-26-5	Toluene-d8 (Surr)	93		72-127



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K03.D  
 Lims ID: MB 180-121882/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 17-Oct-2014 21:25:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB 180-121882/1-A  
 Misc. Info.: 180-0003876-003180-0003876-003  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 21:20:28 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 21:20:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.700	4.761	-0.061	97	307321	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.626	7.620	0.006	98	561350	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.692	10.693	-0.001	90	125792	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.022	13.023	0.000	96	172307	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.878	6.866	0.012	92	104651	250.0	221.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.249	7.243	0.006	94	155214	250.0	281.2	
\$ 7 Toluene-d8 (Surr)	98	9.263	9.257	0.006	94	485929	250.0	232.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	84	169306	250.0	230.3	
10 Dichlorodifluoromethane	85		1.780					ND	
11 Chloromethane	50		1.951					ND	
12 Vinyl chloride	62		2.103					ND	
13 Butadiene	39		2.151					ND	
14 Bromomethane	94		2.486					ND	
15 Chloroethane	64		2.638					ND	
16 Dichlorofluoromethane	67		2.930					ND	
17 Trichlorofluoromethane	101		3.009					ND	
18 Ethanol	45		3.423					ND	
19 Ethyl ether	59		3.429					ND	
20 Acrolein	56		3.593					ND	
21 1,1-Dichloroethene	96		3.770					ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.812					ND	
23 Acetone	43		3.891					ND	
24 Iodomethane	142		3.995					ND	
25 Carbon disulfide	76		4.092					ND	
26 Isopropyl alcohol	45		4.177					ND	
28 3-Chloro-1-propene	76		4.335					ND	
27 Acetonitrile	40		4.372					ND	
29 Methyl acetate	43		4.439					ND	
30 Methylene Chloride	84		4.530					ND	
31 2-Methyl-2-propanol	59		4.877					ND	
32 Acrylonitrile	53		4.931					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96		4.962					ND	
34 Methyl tert-butyl ether	73		5.017					ND	
35 Hexane	57		5.382					ND	
36 1,1-Dichloroethane	63		5.546					ND	
37 Vinyl acetate	43		5.669					ND	
38 2-Chloro-1,3-butadiene	53		5.687					ND	
39 Isopropyl ether	45		5.711					ND	
40 Tert-butyl ethyl ether	59		6.173					ND	
41 2,2-Dichloropropane	77		6.294					ND	
42 cis-1,2-Dichloroethene	96		6.300					ND	
43 2-Butanone (MEK)	43		6.343					ND	
45 Ethyl acetate	43		6.346					ND	
44 Propionitrile	54		6.392					ND	
46 Methacrylonitrile	41		6.575					ND	
47 Chlorobromomethane	128		6.580					ND	
48 Tetrahydrofuran	42		6.653					ND	
49 Chloroform	83		6.690					ND	
50 1,1,1-Trichloroethane	97		6.890					ND	
51 Cyclohexane	56		6.963					ND	
52 1,1-Dichloropropene	75		7.079					ND	
53 Carbon tetrachloride	117		7.091					ND	
57 Tert-amyl methyl ether	73		7.262					ND	
54 Isobutyl alcohol	41		7.268					ND	
55 Benzene	78		7.310					ND	
56 1,2-Dichloroethane	62		7.322					ND	
59 n-Heptane	43		7.633					ND	
58 Isooctane	57		7.633					ND	
60 Trichloroethene	130		8.010					ND	
63 Methylcyclohexane	83		8.223					ND	
61 n-Butanol	56		8.223					ND	
62 Ethyl acrylate	55		8.229					ND	
66 Methyl methacrylate	69		8.229					ND	
64 1,2-Dichloropropane	63		8.241					ND	
65 Dibromomethane	93		8.350					ND	
67 1,4-Dioxane	88		8.381					ND	
68 Dichlorobromomethane	83		8.521					ND	
70 2-Chloroethyl vinyl ether	63		8.837					ND	
71 cis-1,3-Dichloropropene	75		8.983					ND	
69 2-Nitropropane	41		9.129					ND	
72 4-Methyl-2-pentanone (MIBK)	43		9.135					ND	
73 Toluene	91	9.324	9.324	0.000	95	14665		6.10	
74 trans-1,3-Dichloropropene	75		9.531					ND	
75 Ethyl methacrylate	69		9.628					ND	
76 1,1,2-Trichloroethane	97		9.719					ND	
77 Tetrachloroethene	164		9.877					ND	
78 1,3-Dichloropropane	76		9.883					ND	
79 2-Hexanone	43		9.963					ND	
80 n-Butyl acetate	43		10.091					ND	
81 Chlorodibromomethane	129		10.115					ND	
82 Ethylene Dibromide	107		10.224					ND	
83 Chlorobenzene	112		10.723					ND	
84 4-Chlorobenzotrifluoride	180		10.745					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131		10.802					ND	
86 Ethylbenzene	106		10.832					ND	
87 m-Xylene & p-Xylene	106		10.948					ND	
88 o-Xylene	106		11.343					ND	
89 Styrene	104		11.356					ND	
90 Bromoform	173		11.532					ND	
91 Isopropylbenzene	105		11.708					ND	
92 Cyclohexanone	55		11.786					ND	
93 1,1,2,2-Tetrachloroethane	83		11.988					ND	
94 Bromobenzene	156		12.013					ND	
96 trans-1,4-Dichloro-2-buten	53		12.043					ND	
95 1,2,3-Trichloropropane	110		12.043					ND	
97 N-Propylbenzene	120		12.122					ND	
98 2-Chlorotoluene	126		12.213					ND	
99 1,3,5-Trimethylbenzene	105		12.292					ND	
100 4-Chlorotoluene	126		12.317					ND	
101 tert-Butylbenzene	119		12.627					ND	
102 Pentachloroethane	167		12.644					ND	
103 1,2,4-Trimethylbenzene	105		12.670					ND	
104 sec-Butylbenzene	105		12.846					ND	
105 1,3-Dichlorobenzene	146		12.962					ND	
106 4-Isopropyltoluene	119		12.992					ND	
108 1,2,3-Trimethylbenzene	105		12.992					ND	
107 1,4-Dichlorobenzene	146		13.047					ND	
109 Benzyl chloride	91		13.173					ND	
110 n-Butylbenzene	91		13.400					ND	
111 1,2-Dichlorobenzene	146		13.424					ND	
112 1,2-Dibromo-3-Chloropropan	157		14.203					ND	
113 1,3,5-Trichlorobenzene	180		14.420					ND	
114 1,2,4-Trichlorobenzene	180		15.048					ND	
115 Hexachlorobutadiene	225		15.231					ND	
116 Naphthalene	128		15.310					ND	
117 1,2,3-Trichlorobenzene	180		15.571					ND	
118 2-Methylnaphthalene	142		16.697					ND	
123 3-Chlorobenzotrifluoride	180		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
124 2,4,5-Trichlorotoluene	159		0.000					ND	
121 1,2-dichloro-4-(trifluorom	214		0.000					ND	
127 2-Chlorobenzotrifluoride	180		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
125 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
119 2,5-Dichlorobenzotrifluori	214		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
S 129 Xylenes, Total	106		1.000					0	
S 130 1,2-Dichloroethene, Total	96		1.000					0	
S 131 1,3-Dichloropropene, Total	1		0.000					0	
T 132 Mesityl oxide TIC	83		0.000					0	
T 133 Methyl n-amyl ketone TIC	43		0.000					0	
T 134 Tetrahydrofuran TIC	42		0.000					0	

[QC Flag Legend](#)

## Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

VOA8260SURR\_00024

Amount Added: 10.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

Report Date: 17-Oct-2014 21:20:28

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K03.D

Injection Date: 17-Oct-2014 21:25:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: MB 180-121882/1-A

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

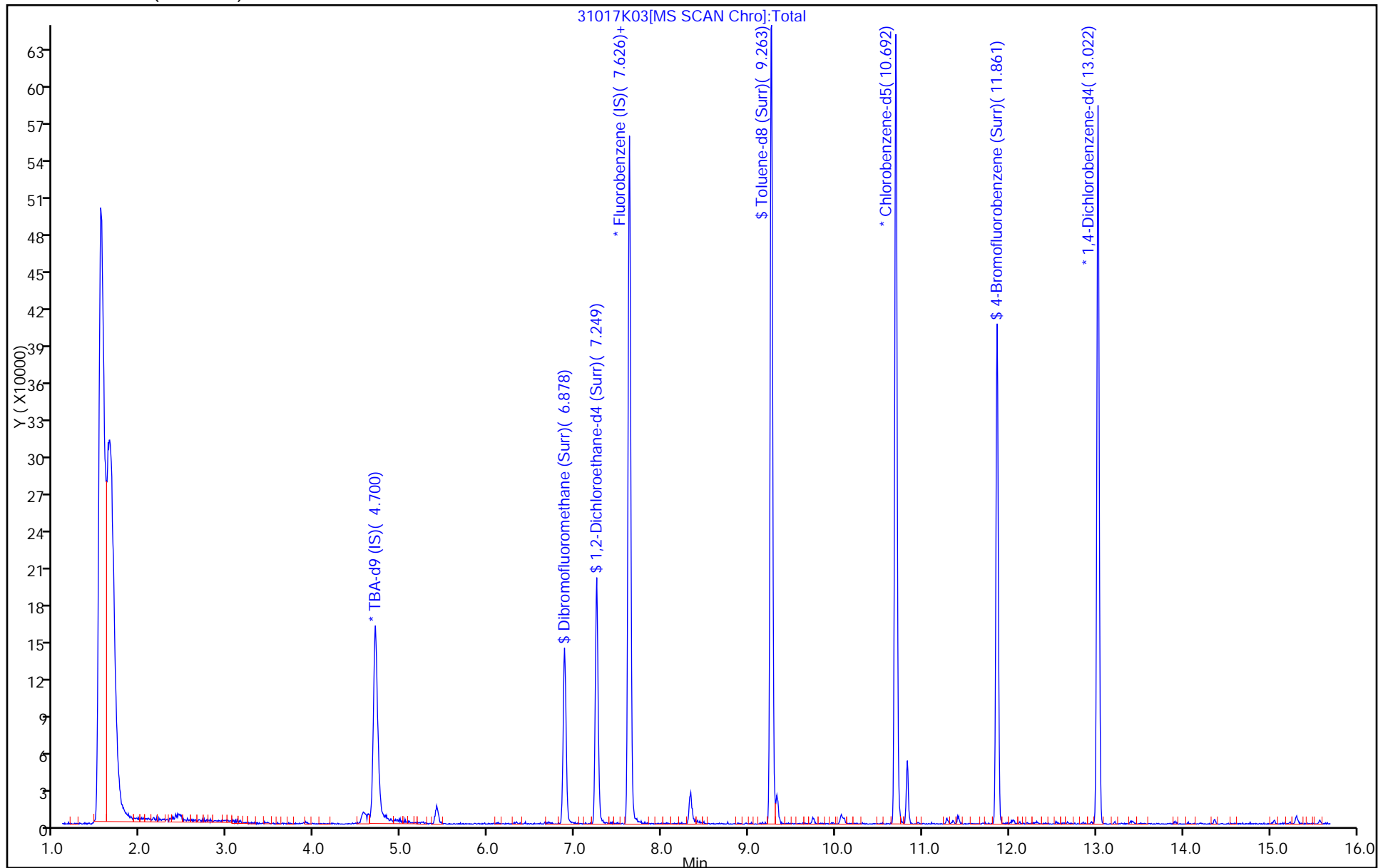
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K03.D

Injection Date: 17-Oct-2014 21:25:30

Instrument ID: CHHP3

Lims ID: MB 180-121882/1-A

Client ID:

Operator ID: 10099

ALS Bottle#: 3

Worklist Smp#: 3

Purge Vol: 5.000 mL

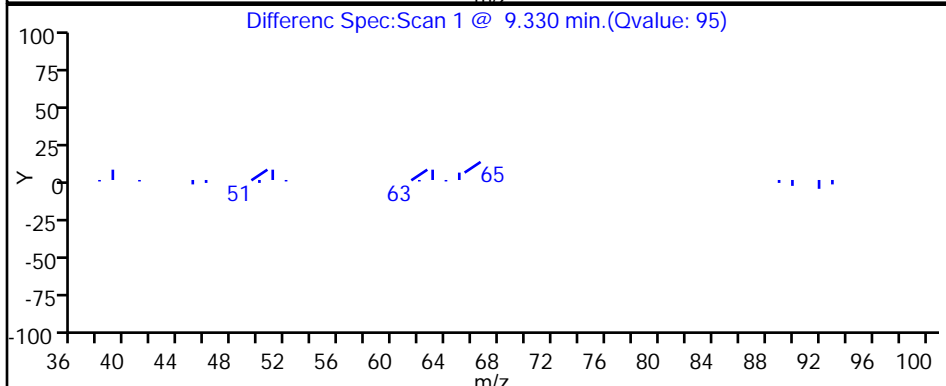
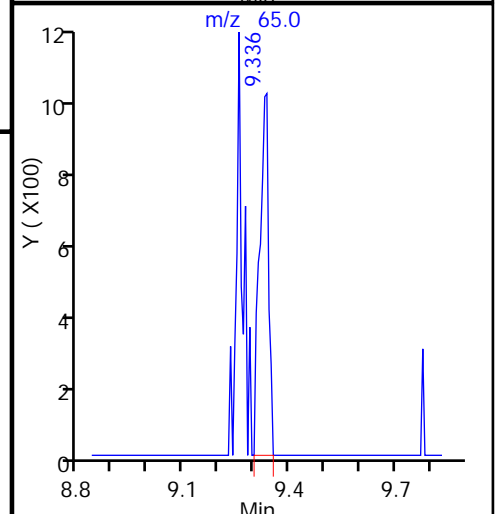
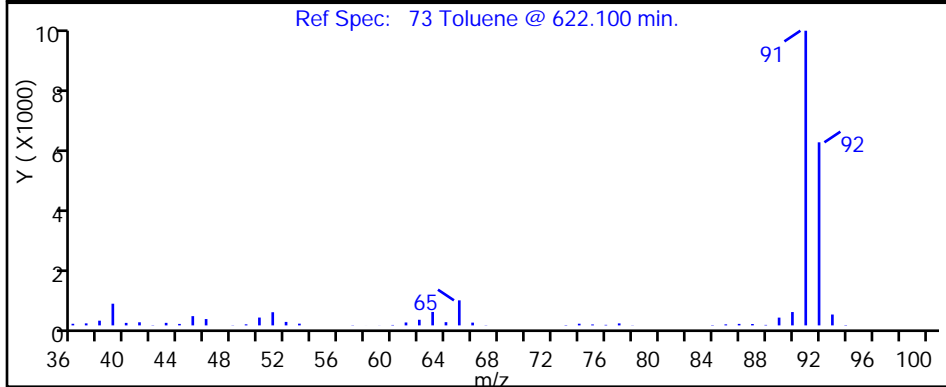
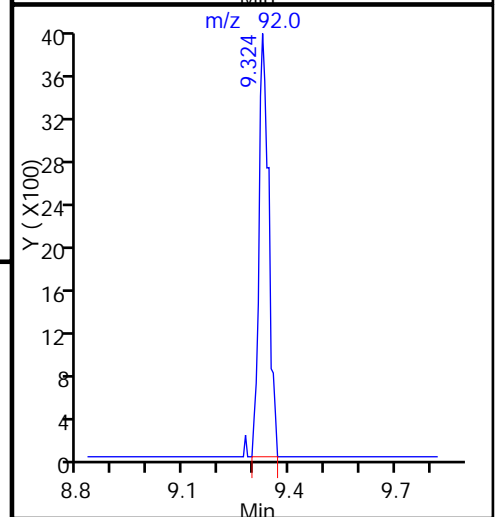
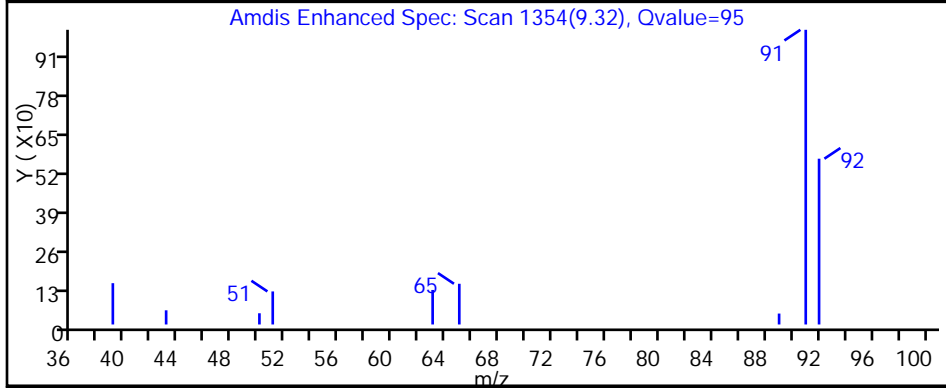
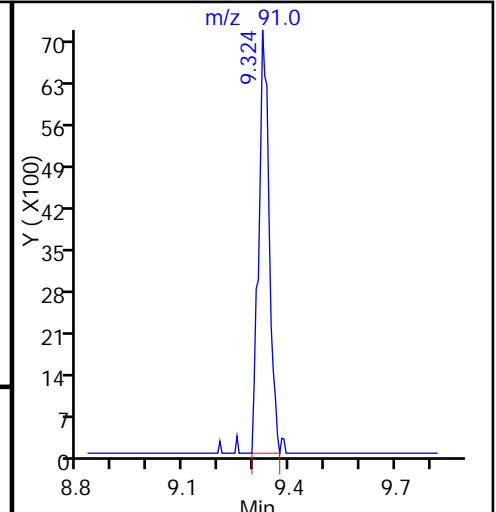
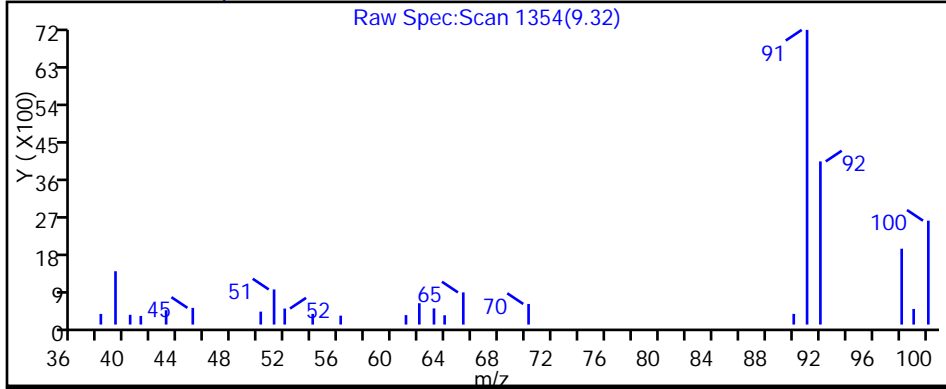
Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

**73 Toluene, CAS: 108-88-3**

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-121882/2-A

Matrix: Sediment Lab File ID: 31017K05.D

Analysis Method: 8260C Date Collected: \_\_\_\_\_

Sample wt/vol: 5.00(g) Date Analyzed: 10/17/2014 22:10

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: \_\_\_\_\_ Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	46.5		5.0	0.49
79-34-5	1,1,2,2-Tetrachloroethane	46.9		5.0	0.72
79-00-5	1,1,2-Trichloroethane	45.0		5.0	0.83
75-34-3	1,1-Dichloroethane	44.2		5.0	0.58
75-35-4	1,1-Dichloroethene	41.4		5.0	0.85
95-50-1	1,2-Dichlorobenzene	41.6		5.0	0.80
107-06-2	1,2-Dichloroethane	52.3		5.0	0.61
78-87-5	1,2-Dichloropropane	42.9		5.0	0.54
541-73-1	1,3-Dichlorobenzene	40.5		5.0	0.66
106-46-7	1,4-Dichlorobenzene	40.8		5.0	0.64
107-02-8	Acrolein	160		100	7.0
107-13-1	Acrylonitrile	380		100	10
71-43-2	Benzene	42.8		5.0	0.68
75-25-2	Bromoform	45.0		5.0	0.44
74-83-9	Bromomethane	58.3		5.0	0.74
56-23-5	Carbon tetrachloride	49.5		5.0	0.45
108-90-7	Chlorobenzene	44.3		5.0	0.76
67-66-3	Chloroform	45.7		5.0	0.58
74-87-3	Chloromethane	34.5		5.0	0.85
124-48-1	Chlorodibromomethane	47.8		5.0	0.71
10061-01-5	cis-1,3-Dichloropropene	47.3		5.0	0.68
75-27-4	Dichlorobromomethane	47.5		5.0	0.56
100-41-4	Ethylbenzene	43.7		5.0	0.64
75-09-2	Methylene Chloride	43.0		5.0	0.67
127-18-4	Tetrachloroethene	42.6		5.0	0.68
108-88-3	Toluene	45.9		5.0	0.73
156-60-5	trans-1,2-Dichloroethene	40.0		5.0	0.60
10061-02-6	trans-1,3-Dichloropropene	50.7		5.0	0.60
79-01-6	Trichloroethene	40.1		5.0	0.66
75-01-4	Vinyl chloride	35.0		5.0	0.47
75-00-3	Chloroethane	45.4		5.0	1.5

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-121882/2-A  
Matrix: Sediment Lab File ID: 31017K05.D  
Analysis Method: 8260C Date Collected: \_\_\_\_\_  
Sample wt/vol: 5.00(g) Date Analyzed: 10/17/2014 22:10  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		52-124
460-00-4	4-Bromofluorobenzene (Surr)	100		63-120
1868-53-7	Dibromofluoromethane (Surr)	93		68-121
2037-26-5	Toluene-d8 (Surr)	94		72-127



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K05.D  
 Lims ID: LCS 180-121882/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 17-Oct-2014 22:10:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS 180-121882/2-A  
 Misc. Info.: 180-0003876-005180-0003876-005  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 22:12:02 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 22:12:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.755	4.761	-0.006	98	212177	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.620	7.620	0.000	98	478646	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	89	106452	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.000	98	154824	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.872	6.866	0.006	93	93572	250.0	232.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.243	7.243	0.000	94	136300	250.0	289.6	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	94	418501	250.0	236.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	84	155336	250.0	249.7	
10 Dichlorodifluoromethane	85	1.780	1.780	0.000	98	107168	200.0	232.5	
11 Chloromethane	50	1.957	1.951	0.006	100	149948	200.0	172.7	
12 Vinyl chloride	62	2.109	2.103	0.006	98	151047	200.0	175.1	
13 Butadiene	39	2.151	2.151	0.000	89	143809	200.0	184.8	
14 Bromomethane	94	2.492	2.486	0.006	87	100155	200.0	291.7	
15 Chloroethane	64	2.626	2.638	-0.012	99	97875	200.0	226.9	
16 Dichlorofluoromethane	67	2.936	2.930	0.006	97	200697	200.0	224.4	
17 Trichlorofluoromethane	101	3.015	3.009	0.006	43	128320	200.0	228.4	M
19 Ethyl ether	59	3.435	3.429	0.006	98	110439	200.0	209.3	
20 Acrolein	56	3.599	3.593	0.006	97	54203	875.0	800.1	
21 1,1-Dichloroethene	96	3.776	3.770	0.006	91	95573	200.0	207.2	
22 1,1,2-Trichloro-1,2,2-trif	101	3.830	3.812	0.018	95	84515	200.0	202.5	
23 Acetone	43	3.891	3.891	0.000	98	46916	200.0	183.6	
24 Iodomethane	142	4.019	3.995	0.024	96	124191	200.0	198.2	M
25 Carbon disulfide	76	4.122	4.092	0.030	98	250407	200.0	205.3	M
28 3-Chloro-1-propene	76	4.341	4.335	0.006	91	46216	200.0	138.1	
29 Methyl acetate	43	4.439	4.439	0.000	99	456122	1000.0	862.5	
30 Methylene Chloride	84	4.609	4.530	0.079	97	117459	200.0	215.2	M
31 2-Methyl-2-propanol	59	4.871	4.877	-0.006	99	107179	2000.0	1932.5	
32 Acrylonitrile	53	4.931	4.931	0.000	96	462912	2000.0	1899.2	
33 trans-1,2-Dichloroethene	96	4.962	4.962	0.000	94	99204	200.0	200.0	
34 Methyl tert-butyl ether	73	5.017	5.017	0.000	98	316118	200.0	252.5	
35 Hexane	57	5.388	5.382	0.006	96	217150	200.0	201.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 1,1-Dichloroethane	63	5.552	5.546	0.006	96	218939	200.0	221.1	
41 2,2-Dichloropropane	77	6.294	6.294	0.000	51	83519	200.0	223.5	
42 cis-1,2-Dichloroethene	96	6.300	6.300	0.000	86	113037	200.0	204.2	
43 2-Butanone (MEK)	43	6.343	6.343	0.000	99	70468	200.0	187.9	
47 Chlorobromomethane	128	6.580	6.580	0.000	88	45767	200.0	203.5	
48 Tetrahydrofuran	42	6.653	6.653	0.000	93	85479	400.0	391.5	
49 Chloroform	83	6.690	6.690	0.000	97	177916	200.0	228.6	
50 1,1,1-Trichloroethane	97	6.896	6.890	0.006	96	126345	200.0	232.6	
51 Cyclohexane	56	6.969	6.963	0.006	93	256498	200.0	218.4	
52 1,1-Dichloropropene	75	7.085	7.079	0.006	93	144617	200.0	227.0	
53 Carbon tetrachloride	117	7.085	7.091	-0.006	68	107876	200.0	247.7	
54 Isobutyl alcohol	41	7.268	7.268	0.000	92	97108	5000.0	4803.8	
55 Benzene	78	7.310	7.310	0.000	97	440763	200.0	214.2	
56 1,2-Dichloroethane	62	7.316	7.322	-0.006	96	154330	200.0	261.5	
59 n-Heptane	43	7.633	7.633	0.000	94	223518	200.0	225.0	
60 Trichloroethene	130	8.016	8.010	0.006	97	98809	200.0	200.7	
63 Methylcyclohexane	83	8.229	8.223	0.006	95	218867	200.0	230.2	
64 1,2-Dichloropropane	63	8.235	8.241	-0.006	96	127605	200.0	214.4	
65 Dibromomethane	93	8.356	8.350	0.006	94	57222	200.0	224.1	
67 1,4-Dioxane	88	8.393	8.381	0.012	85	13962	4000.0	2972.5	
68 Dichlorobromomethane	83	8.521	8.521	0.000	98	128810	200.0	237.3	
71 cis-1,3-Dichloropropene	75	8.983	8.983	0.000	94	179988	200.0	236.7	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.135	0.000	97	126228	200.0	218.4	
73 Toluene	91	9.324	9.324	0.000	97	467434	200.0	229.7	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	97	149737	200.0	253.4	
75 Ethyl methacrylate	69	9.628	9.628	0.000	93	144702	200.0	240.3	
76 1,1,2-Trichloroethane	97	9.713	9.719	-0.006	91	91434	200.0	225.1	
77 Tetrachloroethene	164	9.877	9.877	0.000	88	79148	200.0	212.8	
78 1,3-Dichloropropane	76	9.883	9.883	0.000	94	171585	200.0	234.9	
79 2-Hexanone	43	9.963	9.963	0.000	94	125369	200.0	248.8	
81 Chlorodibromomethane	129	10.115	10.115	0.000	91	78815	200.0	239.0	
82 Ethylene Dibromide	107	10.224	10.224	0.000	92	90159	200.0	234.9	
83 Chlorobenzene	112	10.723	10.723	0.000	91	281276	200.0	221.3	
85 1,1,1,2-Tetrachloroethane	131	10.802	10.802	0.000	94	82352	200.0	222.1	
86 Ethylbenzene	106	10.832	10.832	0.000	99	158260	200.0	218.4	
87 m-Xylene & p-Xylene	106	10.942	10.948	-0.006	99	190321	200.0	216.7	
88 o-Xylene	106	11.343	11.343	0.000	95	193160	200.0	223.4	
89 Styrene	104	11.350	11.356	-0.006	91	319391	200.0	218.4	
90 Bromoform	173	11.532	11.532	0.000	94	45295	200.0	225.2	
91 Isopropylbenzene	105	11.708	11.708	0.000	96	488875	200.0	227.7	
93 1,1,2,2-Tetrachloroethane	83	11.982	11.988	-0.006	92	122877	200.0	234.6	
94 Bromobenzene	156	12.019	12.013	0.006	96	101499	200.0	198.8	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.043	0.000	72	42258	200.0	219.4	
95 1,2,3-Trichloropropane	110	12.037	12.043	-0.006	83	35982	200.0	222.4	
97 N-Propylbenzene	120	12.122	12.122	0.000	99	129337	200.0	203.9	
98 2-Chlorotoluene	126	12.213	12.213	0.000	95	102717	200.0	201.8	
99 1,3,5-Trimethylbenzene	105	12.292	12.292	0.000	94	391172	200.0	220.3	
100 4-Chlorotoluene	126	12.317	12.317	0.000	99	108738	200.0	199.3	
101 tert-Butylbenzene	119	12.627	12.627	0.000	94	375750	200.0	242.8	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	98	396631	200.0	218.9	
104 sec-Butylbenzene	105	12.846	12.846	0.000	95	511100	200.0	221.9	
105 1,3-Dichlorobenzene	146	12.962	12.962	0.000	96	199750	200.0	202.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 4-Isopropyltoluene	119	12.986	12.992	-0.006	96	399033	200.0	215.1	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	92	197758	200.0	204.2	
110 n-Butylbenzene	91	13.400	13.400	0.000	98	418301	200.0	230.2	
111 1,2-Dichlorobenzene	146	13.424	13.424	0.000	95	186082	200.0	207.9	
112 1,2-Dibromo-3-Chloropropan	157	14.197	14.203	-0.006	79	17652	200.0	214.5	
114 1,2,4-Trichlorobenzene	180	15.048	15.048	0.000	93	103003	200.0	208.2	
115 Hexachlorobutadiene	225	15.231	15.231	0.000	96	49366	200.0	218.9	
116 Naphthalene	128	15.310	15.310	0.000	97	264183	200.0	215.6	
117 1,2,3-Trichlorobenzene	180	15.571	15.571	0.000	92	82730	200.0	200.2	
S 129 Xylenes, Total	106				0		400.0	440.1	
S 130 1,2-Dichloroethene, Total	96				0		400.0	404.2	
S 131 1,3-Dichloropropene, Total	1				0		400.0	490.1	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOAACROLEIN2N\_00003

Amount Added: 35.00

Units: uL

VOA8260SURRE\_00024

Amount Added: 10.00

Units: uL

VOA8260VOA2ND\_00086

Amount Added: 8.00

Units: uL

VOA8260INT\_00021

Amount Added: 10.00

Units: uL

Run Reagent

Report Date: 17-Oct-2014 22:12:03

Chrom Revision: 2.2 18-Aug-2014 12:17:36

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K05.D

Injection Date: 17-Oct-2014 22:10:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: LCS 180-121882/2-A

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

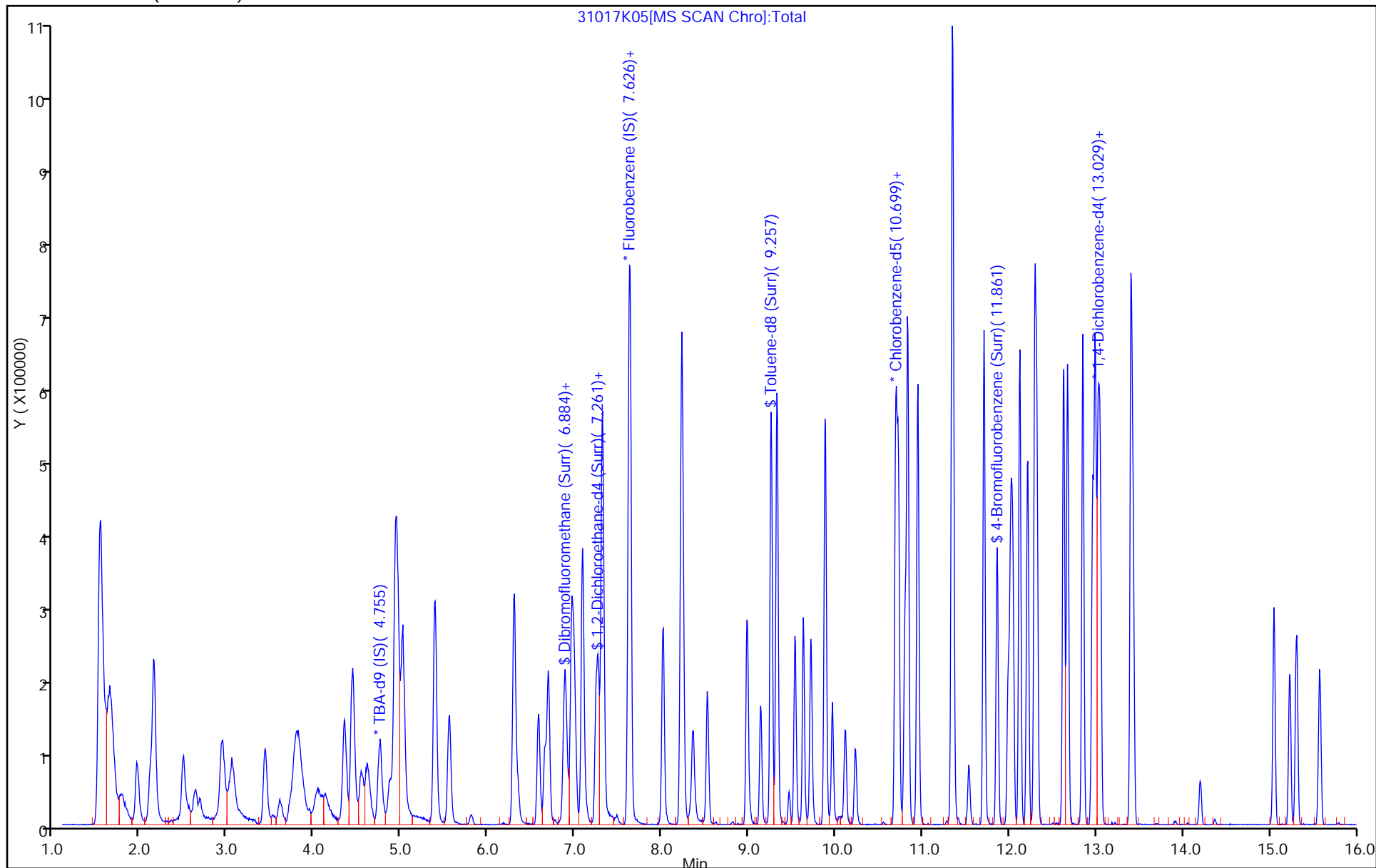
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K05.D

Injection Date: 17-Oct-2014 22:10:30

Instrument ID: CHHP3

Lims ID: LCS 180-121882/2-A

Client ID:

Operator ID: 10099

ALS Bottle#:

5

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

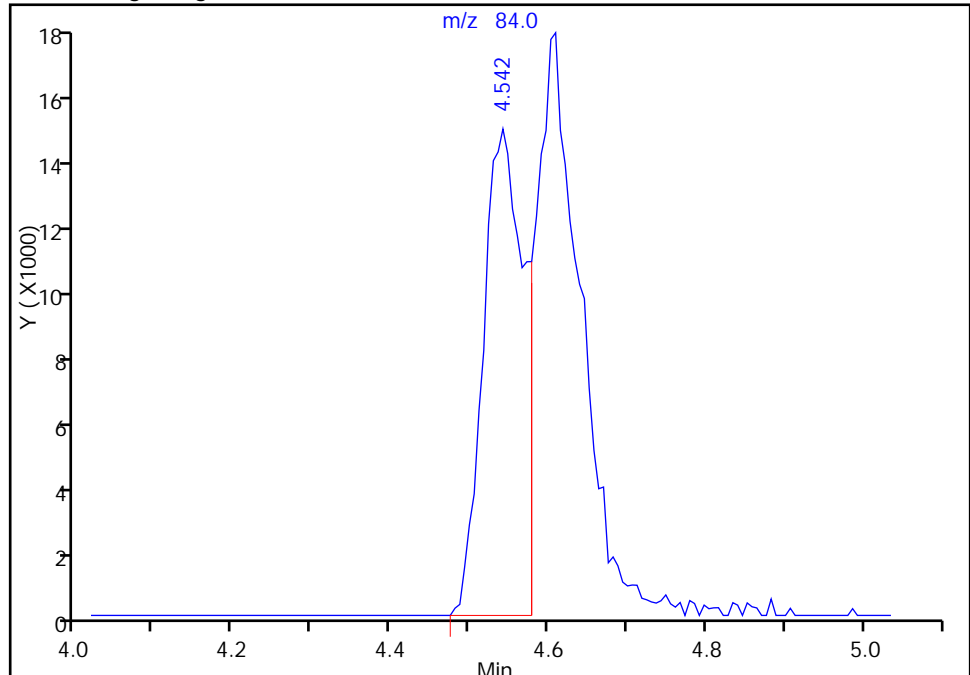
Column: DB-624 (0.18 mm)

Detector: MS SCAN

## 30 Methylene Chloride, CAS: 75-09-2

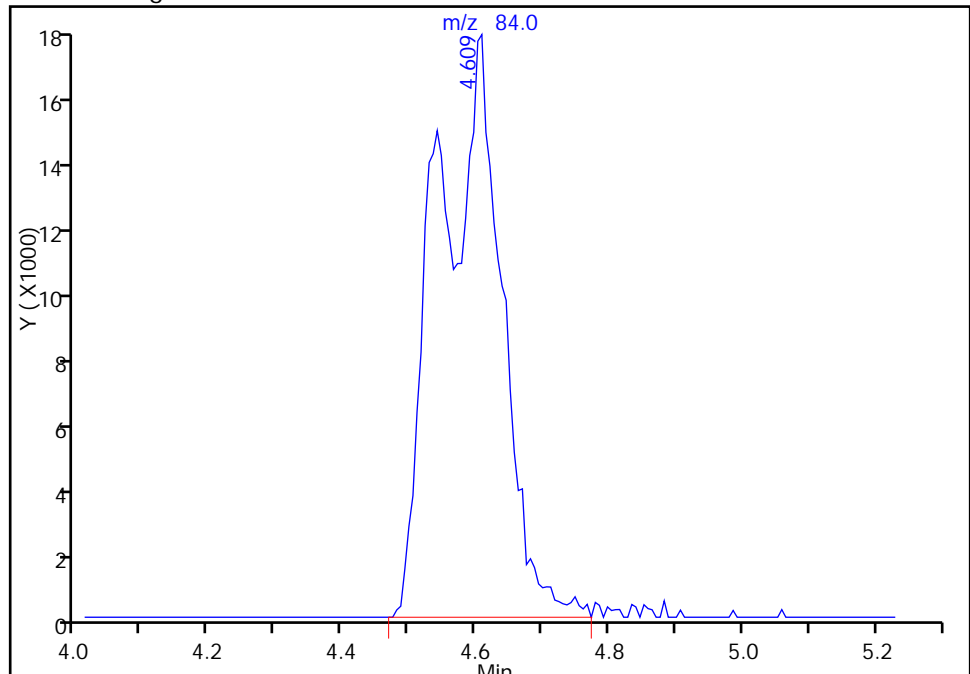
RT: 4.54  
Response: 52991  
Amount: 83.871246

## Processing Integration Results



RT: 4.61  
Response: 117459  
Amount: 215.2173

## Manual Integration Results



Reviewer: gordonk, 17-Oct-2014 22:12:02

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MS Lab Sample ID: 180-37750-4 MS

Matrix: Sediment Lab File ID: 31017K06.D

Analysis Method: 8260C Date Collected: 10/13/2014 12:50

Sample wt/vol: 5.0010(g) Date Analyzed: 10/17/2014 22:33

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 29.3 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	69.5		7.1	0.69
79-34-5	1,1,2,2-Tetrachloroethane	66.3		7.1	1.0
79-00-5	1,1,2-Trichloroethane	62.9		7.1	1.2
75-34-3	1,1-Dichloroethane	67.8		7.1	0.81
75-35-4	1,1-Dichloroethene	60.5		7.1	1.2
95-50-1	1,2-Dichlorobenzene	61.6		7.1	1.1
107-06-2	1,2-Dichloroethane	77.8		7.1	0.87
78-87-5	1,2-Dichloropropane	64.6		7.1	0.77
541-73-1	1,3-Dichlorobenzene	60.6		7.1	0.93
106-46-7	1,4-Dichlorobenzene	60.5		7.1	0.90
110-75-8	2-Chloroethyl vinyl ether	ND		14	1.1
107-02-8	Acrolein	236		140	10
107-13-1	Acrylonitrile	568		140	15
71-43-2	Benzene	62.2		7.1	0.96
75-25-2	Bromoform	62.4		7.1	0.63
74-83-9	Bromomethane	82.5		7.1	1.0
56-23-5	Carbon tetrachloride	71.6		7.1	0.63
108-90-7	Chlorobenzene	64.6		7.1	1.1
67-66-3	Chloroform	67.6		7.1	0.83
74-87-3	Chloromethane	54.6		7.1	1.2
124-48-1	Chlorodibromomethane	67.7		7.1	1.0
10061-01-5	cis-1,3-Dichloropropene	67.4		7.1	0.96
75-27-4	Dichlorobromomethane	70.9		7.1	0.79
100-41-4	Ethylbenzene	64.7		7.1	0.91
75-09-2	Methylene Chloride	31.3		7.1	0.95
127-18-4	Tetrachloroethene	60.0		7.1	0.96
108-88-3	Toluene	66.6		7.1	1.0
156-60-5	trans-1,2-Dichloroethene	60.4		7.1	0.84
10061-02-6	trans-1,3-Dichloropropene	74.0		7.1	0.85
79-01-6	Trichloroethene	55.0		7.1	0.93
75-01-4	Vinyl chloride	54.6		7.1	0.66
75-00-3	Chloroethane	62.9		7.1	2.2

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B01 MS Lab Sample ID: 180-37750-4 MS  
Matrix: Sediment Lab File ID: 31017K06.D  
Analysis Method: 8260C Date Collected: 10/13/2014 12:50  
Sample wt/vol: 5.0010(g) Date Analyzed: 10/17/2014 22:33  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 29.3 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		52-124
460-00-4	4-Bromofluorobenzene (Surr)	100		63-120
1868-53-7	Dibromofluoromethane (Surr)	93		68-121
2037-26-5	Toluene-d8 (Surr)	100		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K06.D  
 Lims ID: 180-37750-C-4-B MS  
 Client ID: SD-B01  
 Sample Type: MS  
 Inject. Date: 17-Oct-2014 22:33:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-4-B MS  
 Misc. Info.: 180-0003876-006180-0003876-006  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Oct-2014 22:31:03 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: gordonk

Date: 17-Oct-2014 22:31:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.744	4.761	-0.017	97	192568	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.615	7.620	-0.005	96	479617	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	89	106359	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.001	96	150608	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.873	6.866	0.007	93	94297	250.0	233.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.238	7.243	-0.005	93	141228	250.0	299.5	
\$ 7 Toluene-d8 (Surr)	98	9.258	9.257	0.001	94	443853	250.0	250.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	84	154883	250.0	249.2	
10 Dichlorodifluoromethane	85	1.793	1.780	0.013	99	109714	200.0	237.6	
11 Chloromethane	50	1.952	1.951	0.001	99	167882	200.0	192.9	
12 Vinyl chloride	62	2.116	2.103	0.013	97	166891	200.0	193.1	
13 Butadiene	39	2.152	2.151	0.001	89	156224	200.0	200.4	
14 Bromomethane	94	2.493	2.486	0.007	87	100316	200.0	291.5	
15 Chloroethane	64	2.663	2.638	0.025	99	96092	200.0	222.3	
16 Dichlorofluoromethane	67	2.943	2.930	0.013	98	208972	200.0	233.2	
17 Trichlorofluoromethane	101	3.040	3.009	0.031	57	129248	200.0	229.6	M
18 Ethanol	45		3.423					ND	
19 Ethyl ether	59	3.436	3.429	0.007	98	113102	200.0	213.9	
20 Acrolein	56	3.588	3.593	-0.005	97	56713	875.0	835.5	
21 1,1-Dichloroethene	96	3.783	3.770	0.013	92	98789	200.0	213.7	
22 1,1,2-Trichloro-1,2,2-trif	101	3.837	3.812	0.025	95	92525	200.0	221.3	
23 Acetone	43	3.892	3.891	0.001	93	47856	200.0	187.2	
24 Iodomethane	142	4.020	3.995	0.025	98	129503	200.0	206.2	M
25 Carbon disulfide	76	4.129	4.092	0.037	98	216799	200.0	177.4	
26 Isopropyl alcohol	45		4.177					ND	
28 3-Chloro-1-propene	76	4.348	4.335	0.013	90	77045	200.0	229.8	
27 Acetonitrile	40		4.372					ND	
29 Methyl acetate	43	4.440	4.439	0.001	99	476424	1000.0	899.0	
30 Methylene Chloride	84	4.543	4.530	0.013	94	66192	200.0	110.5	
31 2-Methyl-2-propanol	59	4.866	4.877	-0.011	99	108486	2000.0	2155.2	
32 Acrylonitrile	53	4.932	4.931	0.001	97	490390	2000.0	2007.9	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96	4.963	4.962	0.001	93	106138	200.0	213.6	
34 Methyl tert-butyl ether	73	5.012	5.017	-0.005	98	318636	200.0	254.0	
35 Hexane	57	5.389	5.382	0.007	93	237798	200.0	219.8	
36 1,1-Dichloroethane	63	5.553	5.546	0.007	96	237857	200.0	239.7	
37 Vinyl acetate	43		5.669					ND	
38 2-Chloro-1,3-butadiene	53		5.687					ND	
39 Isopropyl ether	45		5.711					ND	
40 Tert-butyl ethyl ether	59		6.173					ND	
41 2,2-Dichloropropane	77	6.301	6.294	0.007	53	88433	200.0	236.2	
42 cis-1,2-Dichloroethene	96	6.301	6.300	0.001	87	116513	200.0	210.1	
43 2-Butanone (MEK)	43	6.344	6.343	0.001	98	74859	200.0	199.2	
45 Ethyl acetate	43		6.346					ND	
44 Propionitrile	54		6.392					ND	
46 Methacrylonitrile	41		6.575					ND	
47 Chlorobromomethane	128	6.581	6.580	0.001	89	47111	200.0	209.0	
48 Tetrahydrofuran	42	6.654	6.653	0.001	90	81977	400.0	374.7	
49 Chloroform	83	6.691	6.690	0.001	97	186392	200.0	239.0	
50 1,1,1-Trichloroethane	97	6.897	6.890	0.007	97	133611	200.0	245.4	
51 Cyclohexane	56	6.964	6.963	0.001	94	264715	200.0	224.9	
52 1,1-Dichloropropene	75	7.086	7.079	0.007	91	147816	200.0	231.6	
53 Carbon tetrachloride	117	7.086	7.091	-0.005	68	110472	200.0	253.1	
57 Tert-amyl methyl ether	73		7.262					ND	
54 Isobutyl alcohol	41	7.268	7.268	0.000	93	96510	5000.0	4764.6	
55 Benzene	78	7.311	7.310	0.001	97	453397	200.0	219.9	
56 1,2-Dichloroethane	62	7.323	7.322	0.001	93	162494	200.0	274.8	
59 n-Heptane	43	7.640	7.633	0.007	94	240145	200.0	241.2	
58 Isooctane	57		7.633					ND	
60 Trichloroethene	130	8.017	8.010	0.007	96	95879	200.0	194.3	
63 Methylcyclohexane	83	8.224	8.223	0.001	95	225400	200.0	236.6	
61 n-Butanol	56		8.223					ND	
62 Ethyl acrylate	55		8.229					ND	
66 Methyl methacrylate	69		8.229					ND	
64 1,2-Dichloropropane	63	8.236	8.241	-0.005	92	136210	200.0	228.4	
65 Dibromomethane	93	8.351	8.350	0.001	96	57654	200.0	225.4	
67 1,4-Dioxane	88	8.376	8.381	-0.005	91	21742	4000.0	4619.4	
68 Dichlorobromomethane	83	8.522	8.521	0.001	98	136252	200.0	250.5	
70 2-Chloroethyl vinyl ether	63		8.837					ND	
71 cis-1,3-Dichloropropene	75	8.978	8.983	-0.005	92	181450	200.0	238.2	
69 2-Nitropropane	41		9.129					ND	
72 4-Methyl-2-pentanone (MIBK)	43	9.136	9.135	0.001	97	123815	200.0	214.4	
73 Toluene	91	9.325	9.324	0.001	98	478832	200.0	235.5	
74 trans-1,3-Dichloropropene	75	9.532	9.531	0.001	96	154362	200.0	261.4	
75 Ethyl methacrylate	69	9.629	9.628	0.001	93	153208	200.0	254.6	
76 1,1,2-Trichloroethane	97	9.714	9.719	-0.005	93	90185	200.0	222.2	
77 Tetrachloroethene	164	9.878	9.877	0.001	95	78713	200.0	211.9	
78 1,3-Dichloropropane	76	9.878	9.883	-0.005	94	180407	200.0	247.2	
79 2-Hexanone	43	9.963	9.963	0.000	96	124003	200.0	246.3	
80 n-Butyl acetate	43		10.091					ND	
81 Chlorodibromomethane	129	10.116	10.115	0.001	90	78831	200.0	239.2	
82 Ethylene Dibromide	107	10.231	10.224	0.007	98	85826	200.0	223.8	
83 Chlorobenzene	112	10.718	10.723	-0.005	90	289854	200.0	228.2	
84 4-Chlorobenzotrifluoride	180		10.745					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131	10.803	10.802	0.001	93	87845	200.0	237.1	
86 Ethylbenzene	106	10.833	10.832	0.001	99	165435	200.0	228.5	
87 m-Xylene & p-Xylene	106	10.949	10.948	0.001	99	196704	200.0	224.1	
88 o-Xylene	106	11.344	11.343	0.001	98	196876	200.0	227.9	
89 Styrene	104	11.350	11.356	-0.006	95	336450	200.0	230.3	
90 Bromoform	173	11.533	11.532	0.001	96	44264	200.0	220.3	
91 Isopropylbenzene	105	11.709	11.708	0.001	96	505067	200.0	235.5	
92 Cyclohexanone	55		11.786					ND	
93 1,1,2,2-Tetrachloroethane	83	11.983	11.988	-0.005	92	122558	200.0	234.2	
94 Bromobenzene	156	12.020	12.013	0.007	95	102355	200.0	206.1	
96 trans-1,4-Dichloro-2-buten	53	12.044	12.043	0.001	72	43434	200.0	231.8	
95 1,2,3-Trichloropropane	110	12.032	12.043	-0.011	83	33728	200.0	214.3	
97 N-Propylbenzene	120	12.123	12.122	0.001	100	128709	200.0	208.5	
98 2-Chlorotoluene	126	12.214	12.213	0.001	95	109831	200.0	221.8	
99 1,3,5-Trimethylbenzene	105	12.293	12.292	0.001	94	395523	200.0	229.0	
100 4-Chlorotoluene	126	12.318	12.317	0.001	98	108762	200.0	204.9	
101 tert-Butylbenzene	119	12.628	12.627	0.001	95	328408	200.0	218.2	
102 Pentachloroethane	167		12.644					ND	
103 1,2,4-Trimethylbenzene	105	12.671	12.670	0.001	97	420845	200.0	238.8	
104 sec-Butylbenzene	105	12.847	12.846	0.001	95	517343	200.0	230.9	
105 1,3-Dichlorobenzene	146	12.963	12.962	0.001	96	205303	200.0	214.1	
106 4-Isopropyltoluene	119	12.987	12.992	-0.005	98	408366	200.0	226.3	
108 1,2,3-Trimethylbenzene	105		12.992					ND	
107 1,4-Dichlorobenzene	146	13.048	13.047	0.001	92	201323	200.0	213.7	
109 Benzyl chloride	91		13.173					ND	
110 n-Butylbenzene	91	13.401	13.400	0.001	98	427992	200.0	242.1	
111 1,2-Dichlorobenzene	146	13.425	13.424	0.001	96	189578	200.0	217.8	
112 1,2-Dibromo-3-Chloropropan	157	14.198	14.203	-0.005	75	16295	200.0	203.6	
113 1,3,5-Trichlorobenzene	180		14.420					ND	
114 1,2,4-Trichlorobenzene	180	15.049	15.048	0.001	93	108537	200.0	225.5	
115 Hexachlorobutadiene	225	15.232	15.231	0.001	97	52253	200.0	238.2	
116 Naphthalene	128	15.305	15.310	-0.005	97	273856	200.0	229.7	
117 1,2,3-Trichlorobenzene	180	15.572	15.571	0.001	96	87512	200.0	217.7	
118 2-Methylnaphthalene	142		16.697					ND	
123 3-Chlorobenzotrifluoride	180		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
124 2,4,5-Trichlorotoluene	159		0.000					ND	
127 2-Chlorobenzotrifluoride	180		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
121 1,2-dichloro-4-(trifluorom	214		0.000					ND	
119 2,5-Dichlorobenzotrifluori	214		0.000					ND	
125 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
S 129 Xylenes, Total	106				0		400.0	452.0	
S 130 1,2-Dichloroethene, Total	96				0		400.0	423.6	
S 131 1,3-Dichloropropene, Total	1				0		400.0	499.6	
T 132 Mesityl oxide TIC	83	8.224	0.000	8.224	58	224405		0	
T 133 Methyl n-amyl ketone TIC	43		0.000					0	
T 134 Tetrahydrofuran TIC	42	6.654	0.000	6.654	91	80500		0	

**QC Flag Legend**

## Processing Flags

ND - Not Detected or Marked ND

## Review Flags

M - Manually Integrated

**Reagents:**

VOAACROLEIN2N_00003	Amount Added: 35.00	Units: uL	
VOA8260SURR_00024	Amount Added: 10.00	Units: uL	
VOA8260VOA2ND_00086	Amount Added: 8.00	Units: uL	
VOA8260INT_00021	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K06.D

Injection Date: 17-Oct-2014 22:33:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-4-B MS

Worklist Smp#: 6

Client ID: SD-B01

Purge Vol: 5.000 mL

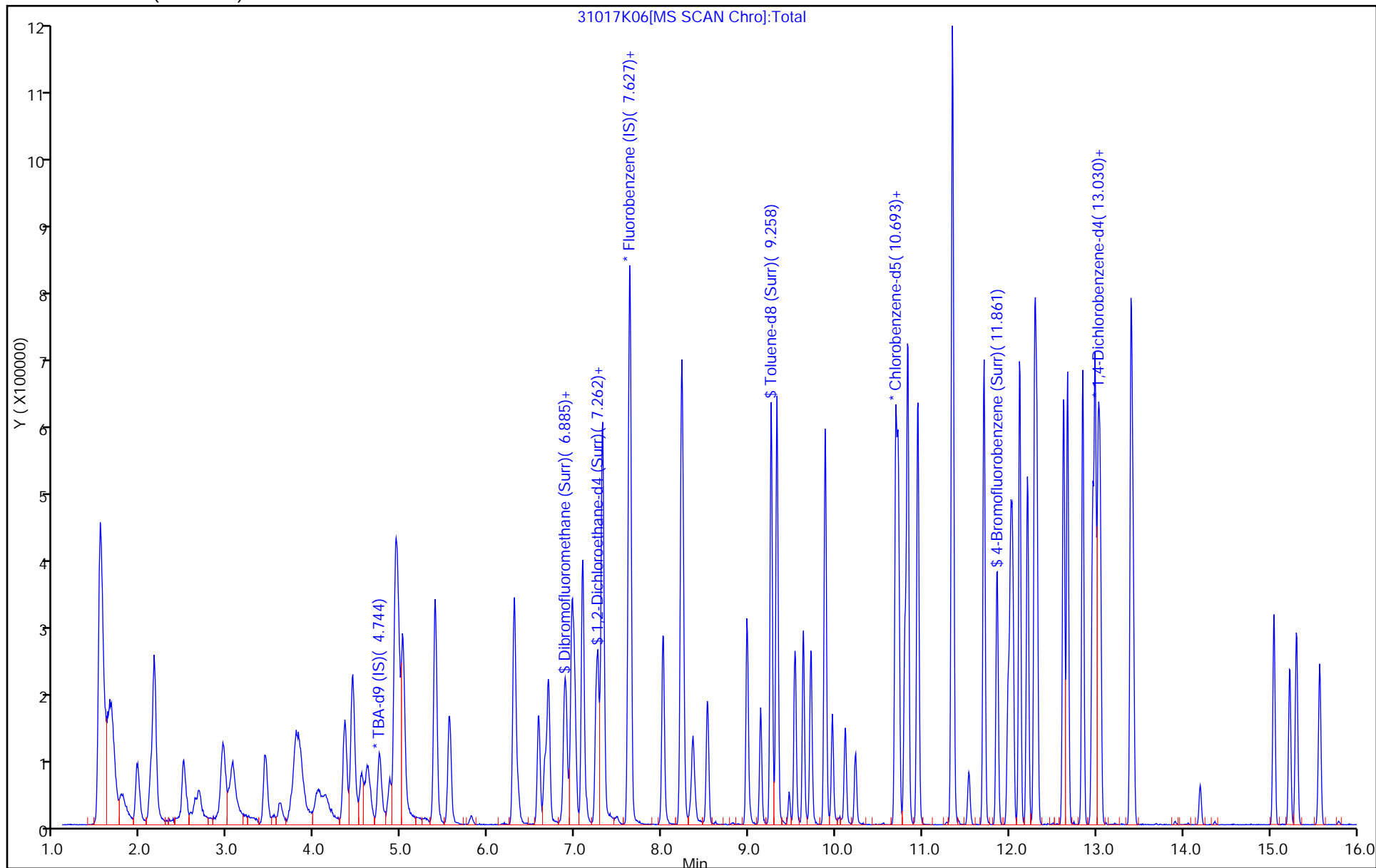
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MSD Lab Sample ID: 180-37750-4 MSD

Matrix: Sediment Lab File ID: 31017K07.D

Analysis Method: 8260C Date Collected: 10/13/2014 12:50

Sample wt/vol: 5.0015(g) Date Analyzed: 10/17/2014 22:56

Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)

% Moisture: 29.3 Level: (low/med) Low

Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	56.6		7.1	0.69
79-34-5	1,1,2,2-Tetrachloroethane	50.3		7.1	1.0
79-00-5	1,1,2-Trichloroethane	51.8		7.1	1.2
75-34-3	1,1-Dichloroethane	56.1		7.1	0.81
75-35-4	1,1-Dichloroethene	48.4		7.1	1.2
95-50-1	1,2-Dichlorobenzene	49.8		7.1	1.1
107-06-2	1,2-Dichloroethane	64.1		7.1	0.87
78-87-5	1,2-Dichloropropane	53.3		7.1	0.77
541-73-1	1,3-Dichlorobenzene	48.6		7.1	0.93
106-46-7	1,4-Dichlorobenzene	49.4		7.1	0.90
110-75-8	2-Chloroethyl vinyl ether	ND		14	1.1
107-02-8	Acrolein	215		140	10
107-13-1	Acrylonitrile	452		140	15
71-43-2	Benzene	52.7		7.1	0.96
75-25-2	Bromoform	52.8		7.1	0.63
74-83-9	Bromomethane	68.9		7.1	1.0
56-23-5	Carbon tetrachloride	61.3		7.1	0.63
108-90-7	Chlorobenzene	50.6		7.1	1.1
67-66-3	Chloroform	59.3		7.1	0.83
74-87-3	Chloromethane	44.3		7.1	1.2
124-48-1	Chlorodibromomethane	53.9		7.1	1.0
10061-01-5	cis-1,3-Dichloropropene	56.6		7.1	0.96
75-27-4	Dichlorobromomethane	58.1		7.1	0.79
100-41-4	Ethylbenzene	49.9		7.1	0.91
75-09-2	Methylene Chloride	52.6		7.1	0.95
127-18-4	Tetrachloroethene	48.8		7.1	0.96
108-88-3	Toluene	56.6		7.1	1.0
156-60-5	trans-1,2-Dichloroethene	47.4		7.1	0.84
10061-02-6	trans-1,3-Dichloropropene	59.3		7.1	0.85
79-01-6	Trichloroethene	47.0		7.1	0.93
75-01-4	Vinyl chloride	45.0		7.1	0.66
75-00-3	Chloroethane	51.0		7.1	2.2

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B01 MSD Lab Sample ID: 180-37750-4 MSD  
Matrix: Sediment Lab File ID: 31017K07.D  
Analysis Method: 8260C Date Collected: 10/13/2014 12:50  
Sample wt/vol: 5.0015(g) Date Analyzed: 10/17/2014 22:56  
Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
% Moisture: 29.3 Level: (low/med) Low  
Analysis Batch No.: 121881 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		52-124
460-00-4	4-Bromofluorobenzene (Surr)	97		63-120
1868-53-7	Dibromofluoromethane (Surr)	91		68-121
2037-26-5	Toluene-d8 (Surr)	96		72-127

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K07.D  
 Lims ID: 180-37750-C-4-C MSD  
 Client ID: SD-B01  
 Sample Type: MSD  
 Inject. Date: 17-Oct-2014 22:56:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-37750-C-4-C MSD  
 Misc. Info.: 180-0003876-007180-0003876-007  
 Operator ID: 10099 Instrument ID: CHHP3  
 Method: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\MSVOA\_S\_CHHP3.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Oct-2014 10:23:02 Calib Date: 22-Sep-2014 13:30:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP3\20140922-3407.b\30922K09.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK033

First Level Reviewer: gordonk

Date: 18-Oct-2014 10:23:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.749	4.761	-0.012	97	190716	5000.0	5000.0	
* 2 Fluorobenzene (IS)	96	7.621	7.620	0.001	98	498633	250.0	250.0	
* 3 Chlorobenzene-d5	119	10.693	10.693	0.000	91	110830	250.0	250.0	
* 4 1,4-Dichlorobenzene-d4	152	13.023	13.023	0.001	96	155489	250.0	250.0	
\$ 5 Dibromofluoromethane (Surr	113	6.872	6.866	0.006	94	95662	250.0	228.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.243	7.243	0.000	96	141399	250.0	288.4	
\$ 7 Toluene-d8 (Surr)	98	9.257	9.257	0.000	94	441796	250.0	239.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.861	11.861	0.000	83	157650	250.0	243.4	
10 Dichlorodifluoromethane	85	1.799	1.780	0.019	93	95066	200.0	198.0	
11 Chloromethane	50	1.957	1.951	0.006	99	141540	200.0	156.5	
12 Vinyl chloride	62	2.115	2.103	0.012	97	143024	200.0	159.1	
13 Butadiene	39	2.158	2.151	0.007	88	135189	200.0	166.8	
14 Bromomethane	94	2.486	2.486	0.000	89	87094	200.0	243.5	
15 Chloroethane	64	2.656	2.638	0.018	99	80967	200.0	180.1	
16 Dichlorofluoromethane	67	2.942	2.930	0.012	98	177928	200.0	191.0	
17 Trichlorofluoromethane	101	3.028	3.009	0.019	77	108739	200.0	185.8	M
18 Ethanol	45		3.423					ND	
19 Ethyl ether	59	3.423	3.429	-0.006	98	95658	200.0	174.0	
20 Acrolein	56	3.605	3.593	0.012	99	53677	875.0	760.6	
21 1,1-Dichloroethene	96	3.776	3.770	0.006	93	82215	200.0	171.1	
22 1,1,2-Trichloro-1,2,2-trif	101	3.831	3.812	0.019	96	77256	200.0	177.7	
23 Acetone	43	3.879	3.891	-0.012	99	40979	200.0	151.2	
24 Iodomethane	142	4.031	3.995	0.036	94	108137	200.0	165.6	M
25 Carbon disulfide	76	4.117	4.092	0.024	100	222072	200.0	174.8	M
26 Isopropyl alcohol	45		4.177					ND	
28 3-Chloro-1-propene	76	4.342	4.335	0.007	91	64803	200.0	185.9	
27 Acetonitrile	40		4.372					ND	
29 Methyl acetate	43	4.439	4.439	0.000	99	407185	1000.0	739.1	
30 Methylene Chloride	84	4.603	4.530	0.073	89	107378	200.0	185.9	M
31 2-Methyl-2-propanol	59	4.865	4.877	-0.012	98	78289	2000.0	1570.4	
32 Acrylonitrile	53	4.932	4.931	0.001	97	405878	2000.0	1598.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 trans-1,2-Dichloroethene	96	4.956	4.962	-0.006	93	86627	200.0	167.7	
34 Methyl tert-butyl ether	73	5.011	5.017	-0.006	99	272039	200.0	208.6	
35 Hexane	57	5.388	5.382	0.006	94	206031	200.0	183.2	
36 1,1-Dichloroethane	63	5.552	5.546	0.006	96	204416	200.0	198.1	
37 Vinyl acetate	43		5.669					ND	
38 2-Chloro-1,3-butadiene	53		5.687					ND	
39 Isopropyl ether	45		5.711					ND	
40 Tert-butyl ethyl ether	59		6.173					ND	
41 2,2-Dichloropropane	77	6.294	6.294	0.000	54	75007	200.0	192.7	
42 cis-1,2-Dichloroethene	96	6.294	6.300	-0.006	87	102030	200.0	176.9	
43 2-Butanone (MEK)	43	6.343	6.343	0.000	99	63475	200.0	162.4	
45 Ethyl acetate	43		6.346					ND	
44 Propionitrile	54		6.392					ND	
46 Methacrylonitrile	41		6.575					ND	
47 Chlorobromomethane	128	6.574	6.580	-0.006	91	40539	200.0	173.0	
48 Tetrahydrofuran	42	6.647	6.653	-0.006	91	73082	400.0	321.3	
49 Chloroform	83	6.696	6.690	0.006	96	169899	200.0	209.5	
50 1,1,1-Trichloroethane	97	6.891	6.890	0.001	96	113232	200.0	200.1	
51 Cyclohexane	56	6.970	6.963	0.007	93	238467	200.0	194.9	
52 1,1-Dichloropropene	75	7.091	7.079	0.012	93	132775	200.0	200.1	
53 Carbon tetrachloride	117	7.091	7.091	0.000	68	98235	200.0	216.5	
57 Tert-amyl methyl ether	73		7.262					ND	
54 Isobutyl alcohol	41	7.268	7.268	0.000	95	83062	5000.0	3944.3	
55 Benzene	78	7.310	7.310	0.000	97	399128	200.0	186.2	
56 1,2-Dichloroethane	62	7.322	7.322	0.000	65	139314	200.0	226.6	
59 n-Heptane	43	7.639	7.633	0.006	94	204601	200.0	197.7	
58 Isooctane	57		7.633					ND	
60 Trichloroethene	130	8.016	8.010	0.006	96	85272	200.0	166.2	
63 Methylcyclohexane	83	8.223	8.223	0.000	94	188583	200.0	190.4	
61 n-Butanol	56		8.223					ND	
62 Ethyl acrylate	55		8.229					ND	
66 Methyl methacrylate	69		8.229					ND	
64 1,2-Dichloropropane	63	8.235	8.241	-0.006	92	116731	200.0	188.3	
65 Dibromomethane	93	8.357	8.350	0.007	94	50107	200.0	188.4	
67 1,4-Dioxane	88	8.387	8.381	0.006	96	11937	4000.0	2439.5	
68 Dichlorobromomethane	83	8.527	8.521	0.006	98	116025	200.0	205.2	
70 2-Chloroethyl vinyl ether	63		8.837					ND	
71 cis-1,3-Dichloropropene	75	8.983	8.983	0.000	92	158484	200.0	200.1	
69 2-Nitropropane	41		9.129					ND	
72 4-Methyl-2-pentanone (MIBK)	43	9.135	9.135	0.000	98	107591	200.0	178.8	
73 Toluene	91	9.324	9.324	0.000	97	423682	200.0	200.0	
74 trans-1,3-Dichloropropene	75	9.531	9.531	0.000	96	128857	200.0	209.4	
75 Ethyl methacrylate	69	9.628	9.628	0.000	94	126156	200.0	201.2	
76 1,1,2-Trichloroethane	97	9.713	9.719	-0.006	93	77429	200.0	183.1	
77 Tetrachloroethene	164	9.878	9.877	0.001	93	66711	200.0	172.3	
78 1,3-Dichloropropane	76	9.884	9.883	0.001	94	156714	200.0	206.1	
79 2-Hexanone	43	9.963	9.963	0.000	97	108942	200.0	207.7	
80 n-Butyl acetate	43		10.091					ND	
81 Chlorodibromomethane	129	10.109	10.115	-0.006	92	65405	200.0	190.5	
82 Ethylene Dibromide	107	10.230	10.224	0.006	94	76054	200.0	190.3	
83 Chlorobenzene	112	10.723	10.723	0.000	89	236747	200.0	178.9	
84 4-Chlorobenzotrifluoride	180		10.745					ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 1,1,1,2-Tetrachloroethane	131	10.802	10.802	0.000	94	74208	200.0	192.2	
86 Ethylbenzene	106	10.833	10.832	0.001	99	133031	200.0	176.3	
87 m-Xylene & p-Xylene	106	10.948	10.948	0.000	99	168441	200.0	184.2	
88 o-Xylene	106	11.344	11.343	0.001	98	161892	200.0	179.9	
89 Styrene	104	11.350	11.356	-0.006	95	285872	200.0	187.8	
90 Bromoform	173	11.532	11.532	0.000	93	39093	200.0	186.7	
91 Isopropylbenzene	105	11.709	11.708	0.001	96	434513	200.0	194.4	
92 Cyclohexanone	55		11.786					ND	
93 1,1,2,2-Tetrachloroethane	83	11.989	11.988	0.000	92	96943	200.0	177.8	
94 Bromobenzene	156	12.019	12.013	0.006	94	90920	200.0	177.3	
96 trans-1,4-Dichloro-2-buten	53	12.043	12.043	0.000	70	35575	200.0	183.9	
95 1,2,3-Trichloropropane	110	12.031	12.043	-0.012	83	26337	200.0	162.1	
97 N-Propylbenzene	120	12.116	12.122	-0.006	100	114837	200.0	180.2	
98 2-Chlorotoluene	126	12.214	12.213	0.001	95	88416	200.0	172.9	
99 1,3,5-Trimethylbenzene	105	12.293	12.292	0.001	94	345926	200.0	194.0	
100 4-Chlorotoluene	126	12.317	12.317	0.000	99	97296	200.0	177.5	
101 tert-Butylbenzene	119	12.627	12.627	0.000	94	320394	200.0	206.2	
102 Pentachloroethane	167		12.644					ND	
103 1,2,4-Trimethylbenzene	105	12.670	12.670	0.000	98	347647	200.0	191.0	
104 sec-Butylbenzene	105	12.846	12.846	0.000	94	440496	200.0	190.4	
105 1,3-Dichlorobenzene	146	12.962	12.962	0.000	96	169952	200.0	171.7	
106 4-Isopropyltoluene	119	12.986	12.992	-0.006	97	338762	200.0	181.8	
108 1,2,3-Trimethylbenzene	105		12.992					ND	
107 1,4-Dichlorobenzene	146	13.047	13.047	0.000	92	169812	200.0	174.6	
109 Benzyl chloride	91		13.173					ND	
110 n-Butylbenzene	91	13.400	13.400	0.000	98	355506	200.0	194.8	
111 1,2-Dichlorobenzene	146	13.424	13.424	0.000	94	158235	200.0	176.0	
112 1,2-Dibromo-3-Chloropropan	157	14.203	14.203	0.000	73	14362	200.0	173.8	
113 1,3,5-Trichlorobenzene	180		14.420					ND	
114 1,2,4-Trichlorobenzene	180	15.048	15.048	0.000	92	92944	200.0	187.1	
115 Hexachlorobutadiene	225	15.225	15.231	-0.006	94	40765	200.0	180.0	
116 Naphthalene	128	15.304	15.310	-0.006	97	235979	200.0	191.7	
117 1,2,3-Trichlorobenzene	180	15.578	15.571	0.007	95	74741	200.0	180.1	
118 2-Methylnaphthalene	142		16.697					ND	
123 3-Chlorobenzotrifluoride	180		0.000					ND	
124 2,4,5-Trichlorotoluene	159		0.000					ND	
126 2,4-Dichloro-1-(triflourom	214		0.000					ND	
125 2,3- & 3,4- Dichlorotoluen	125		0.000					ND	
127 2-Chlorobenzotrifluoride	180		0.000					ND	
121 1,2-dichloro-4-(trifluorom	214		0.000					ND	
128 2,3,6-Trichlorotoluene	159		0.000					ND	
122 3-Chlorotoluene	126		0.000					ND	
119 2,5-Dichlorobenzotrifluori	214		0.000					ND	
120 2,4- & 2,5- & 2,6- Dichlor	125		0.000					ND	
S 129 Xylenes, Total	106				0		400.0	364.0	
S 130 1,2-Dichloroethene, Total	96				0		400.0	344.6	
S 131 1,3-Dichloropropene, Total	1				0		400.0	409.5	
T 132 Mesityl oxide TIC	83		0.000					0	
T 133 Methyl n-amyl ketone TIC	43		0.000					0	
T 134 Tetrahydrofuran TIC	42	6.647	0.000	6.647	91	72062		0	

**QC Flag Legend**

## Processing Flags

ND - Not Detected or Marked ND

## Review Flags

M - Manually Integrated

**Reagents:**

VOAACROLEIN2N_00003	Amount Added: 35.00	Units: uL	
VOA8260SURR_00024	Amount Added: 10.00	Units: uL	
VOA8260VOA2ND_00086	Amount Added: 8.00	Units: uL	
VOA8260INT_00021	Amount Added: 10.00	Units: uL	Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K07.D

Injection Date: 17-Oct-2014 22:56:30

Instrument ID: CHHP3

Operator ID: 10099

Lims ID: 180-37750-C-4-C MSD

Worklist Smp#: 7

Client ID: SD-B01

Purge Vol: 5.000 mL

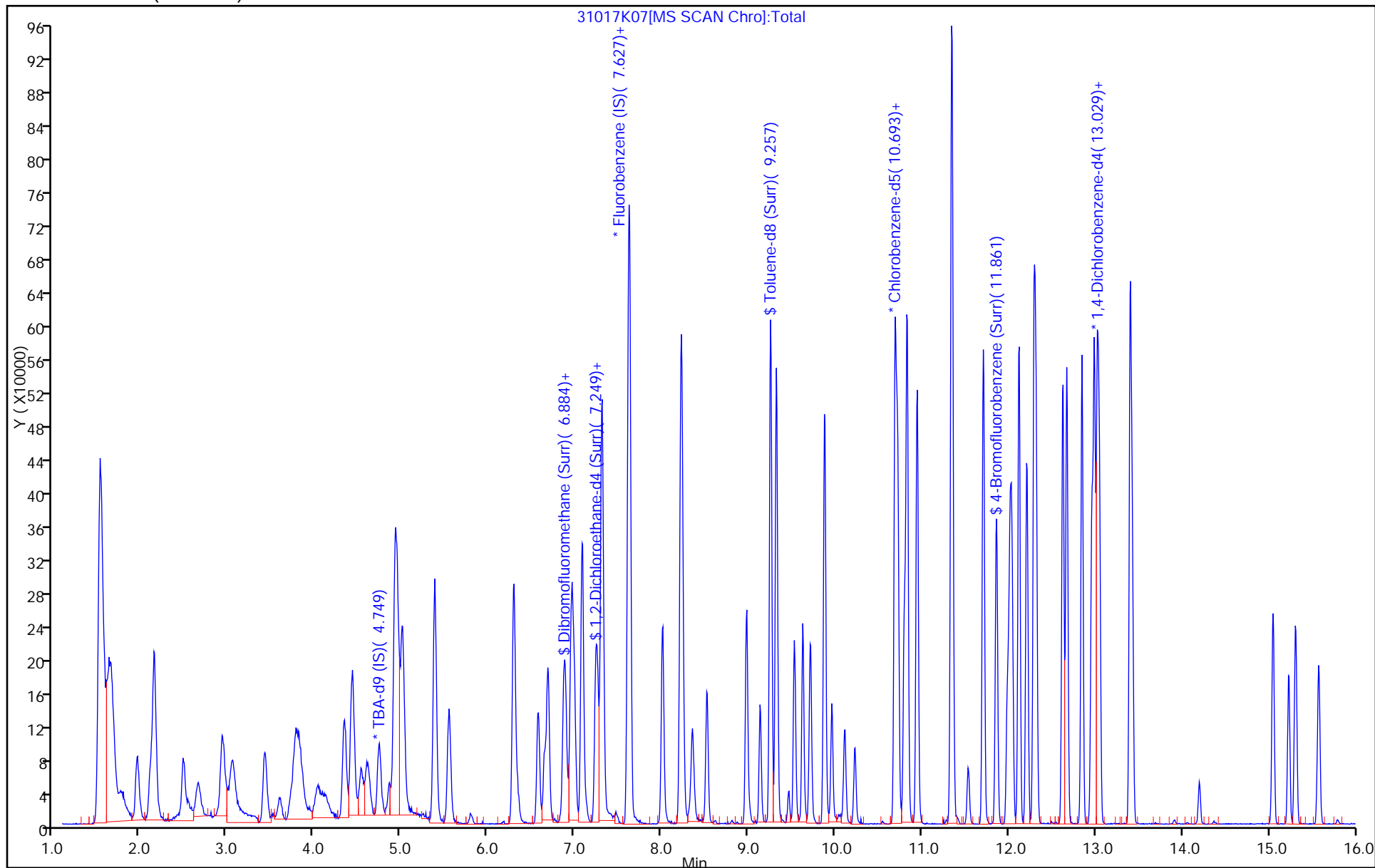
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_S\_CHHP3

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP3\20141017-3876.b\31017K07.D

Injection Date: 17-Oct-2014 22:56:30

Instrument ID: CHHP3

Lims ID: 180-37750-C-4-C MSD

Client ID: SD-B01

Operator ID: 10099

ALS Bottle#:

7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor:

1.0000

Method: MSVOA\_S\_CHHP3

Limit Group:

VOA 8260C ICAL

Column: DB-624 (0.18 mm)

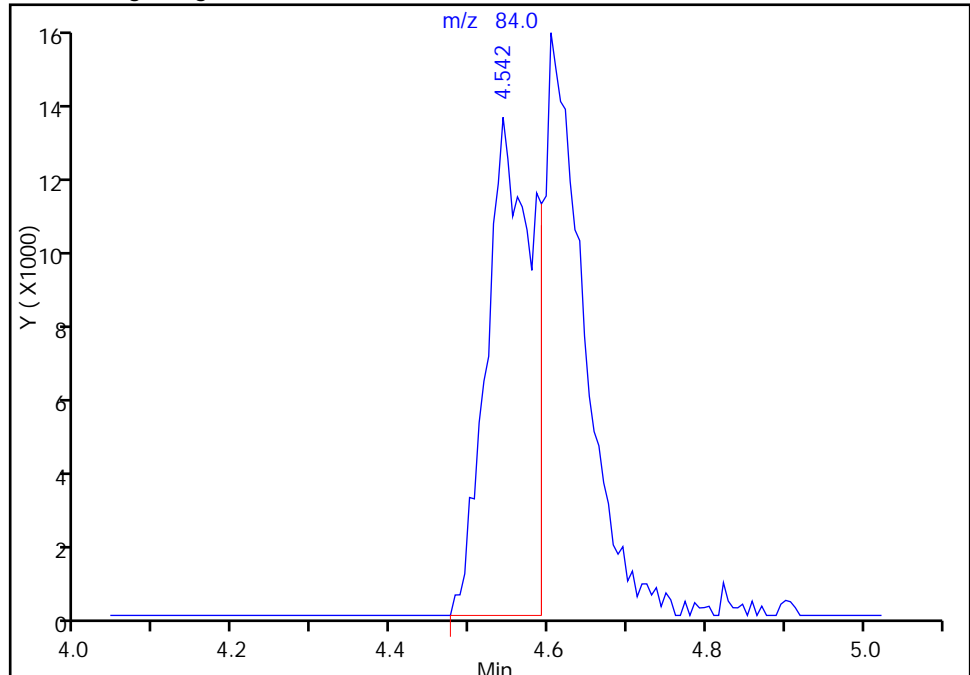
Detector

MS SCAN

## 30 Methylene Chloride, CAS: 75-09-2

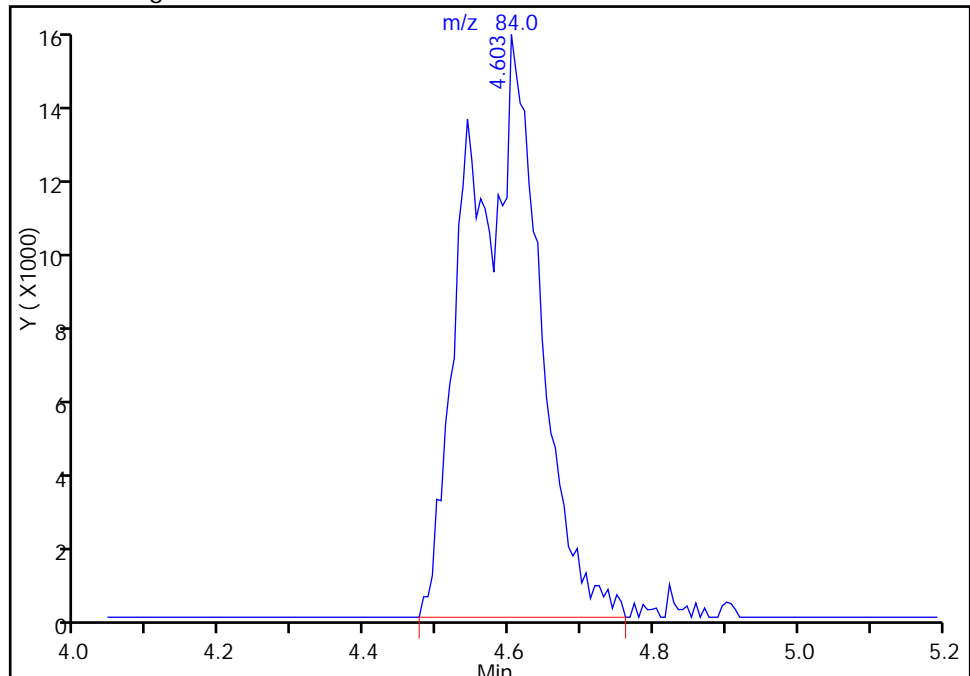
RT: 4.54  
Response: 54944  
Amount: 83.363219

## Processing Integration Results



RT: 4.60  
Response: 107378  
Amount: 185.9093

## Manual Integration Results



Reviewer: gordonk, 18-Oct-2014 10:23:02

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Start Date: 03/07/2014 05:23Analysis Batch Number: 98978 End Date: 03/07/2014 11:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-98978/1		03/07/2014 05:23	1	303070A1.D	DB-624 0.18 (mm)
IC 180-98978/2		03/07/2014 05:54	1	3030702.D	DB-624 0.18 (mm)
IC 180-98978/3		03/07/2014 06:20	1	3030703.D	DB-624 0.18 (mm)
IC 180-98978/4		03/07/2014 06:45	1	3030704.D	DB-624 0.18 (mm)
IC 180-98978/5		03/07/2014 07:09	1	3030705.D	DB-624 0.18 (mm)
IC 180-98978/6		03/07/2014 07:32	1	3030706.D	DB-624 0.18 (mm)
IC 180-98978/7		03/07/2014 07:57	1	3030707.D	DB-624 0.18 (mm)
IC 180-98978/8		03/07/2014 08:21	1	3030708.D	DB-624 0.18 (mm)
ICV 180-98978/9		03/07/2014 11:24	1		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3 Start Date: 09/22/2014 10:09Analysis Batch Number: 118826 End Date: 09/22/2014 16:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-118826/1		09/22/2014 10:09	1	30922K01.D	DB-624 0.18 (mm)
IC 180-118826/3		09/22/2014 11:07	1	30922K03.D	DB-624 0.18 (mm)
IC 180-118826/4		09/22/2014 11:29	1	30922K04.D	DB-624 0.18 (mm)
IC 180-118826/5		09/22/2014 11:52	1	30922K05.D	DB-624 0.18 (mm)
ICIS 180-118826/6		09/22/2014 12:15	1	30922K06.D	DB-624 0.18 (mm)
IC 180-118826/7		09/22/2014 12:38	1	30922K07.D	DB-624 0.18 (mm)
IC 180-118826/8		09/22/2014 13:04	1	30922K08.D	DB-624 0.18 (mm)
IC 180-118826/9		09/22/2014 13:30	1	30922K09.D	DB-624 0.18 (mm)
ICV 180-118826/16		09/22/2014 16:34	1		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP3Start Date: 10/17/2014 20:12Analysis Batch Number: 121881End Date: 10/18/2014 06:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-121881/1		10/17/2014 20:12	1	31017K01.D	DB-624 0.18 (mm)
CCVIS 180-121881/2		10/17/2014 20:43	1	31017K02.D	DB-624 0.18 (mm)
MB 180-121882/1-A		10/17/2014 21:25	1	31017K03.D	DB-624 0.18 (mm)
180-37750-4	SD-B01	10/17/2014 21:48	1	31017K04.D	DB-624 0.18 (mm)
LCS 180-121882/2-A		10/17/2014 22:10	1	31017K05.D	DB-624 0.18 (mm)
180-37750-4 MS	SD-B01 MS	10/17/2014 22:33	1	31017K06.D	DB-624 0.18 (mm)
180-37750-4 MSD	SD-B01 MSD	10/17/2014 22:56	1	31017K07.D	DB-624 0.18 (mm)
ZZZZZ		10/17/2014 23:42	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 00:04	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 00:26	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 01:11	1		DB-624 0.18 (mm)
180-37750-5	SD-B02	10/18/2014 01:34	1	31017K14.D	DB-624 0.18 (mm)
180-37750-6	SD-B02-FD	10/18/2014 01:56	1	31017K15.D	DB-624 0.18 (mm)
180-37750-7	SD-C01	10/18/2014 02:19	1	31017K16.D	DB-624 0.18 (mm)
180-37750-8	SD-C02	10/18/2014 02:42	1	31017K17.D	DB-624 0.18 (mm)
180-37750-9	SD-C03	10/18/2014 03:04	1	31017K18.D	DB-624 0.18 (mm)
ZZZZZ		10/18/2014 03:27	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 03:49	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 04:11	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 04:34	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 04:57	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 05:19	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 05:41	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 06:04	1		DB-624 0.18 (mm)
ZZZZZ		10/18/2014 06:49	1		DB-624 0.18 (mm)

## GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 121882 Batch Start Date: 10/17/14 19:39 Batch Analyst: Gordon, Kathy LBatch Method: 5030C Batch End Date: 10/17/14 20:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 180-121882/1		5030C, 8260C		5.00 g	5 mL				
LCS 180-121882/2		5030C, 8260C		5.00 g	5 mL				
180-37750-C-4	SD-B01	5030C, 8260C	T	5.0007 g	5 mL				
180-37750-C-4 MS	SD-B01	5030C, 8260C	T	5.0010 g	5 mL				
180-37750-C-4 MSD	SD-B01	5030C, 8260C	T	5.0015 g	5 mL				
180-37750-E-5	SD-B02	5030C, 8260C	T	5.0007 g	5 mL				
180-37750-C-6	SD-B02-FD	5030C, 8260C	T	5.0004 g	5 mL				
180-37750-C-7	SD-C01	5030C, 8260C	T	5.0006 g	5 mL				
180-37750-C-8	SD-C02	5030C, 8260C	T	5.0009 g	5 mL				
180-37750-C-9	SD-C03	5030C, 8260C	T	5.0015 g	5 mL				

Batch Notes	
Balance ID	14234771
Blank Soil Lot Number	2CB0290

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



# Method 8270D Low Level

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Semivolatile Organic Compounds  
(GC/MS) Low Level by Method 8270D

FORM II  
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low  
 GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
SD-B01	180-37750-4	76	68	89	71	61	83
SD-B02	180-37750-5	0 X D	0 X D	0 X D	0 X D	0 X D	0 X D
SD-B02-FD	180-37750-6	0 X D	0 X D	0 X D	0 X D	0 X D	0 X D
SD-C01	180-37750-7	57	61	71	64	40	79
SD-C02	180-37750-8	0 X D	0 X D	0 X D	0 X D	0 X D	0 X D
SD-C03	180-37750-9	0 X D	0 X D	0 X D	0 X D	0 X D	0 X D
	MB 180-122598/1-A	82	73	83	71	70	75
	LCS 180-122598/2-A	77	72	82	70	83	72
SD-B01 MS	180-37750-4 MS	79	73	92	75	98	83
SD-B01 MSD	180-37750-4 MSD	76	71	92	77	101	74

	<u>QC LIMITS</u>
2FP = 2-Fluorophenol (Surr)	28-107
PHL = Phenol-d5 (Surr)	30-112
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TBP = 2,4,6-Tribromophenol (Surr)	21-116
TPH = Terphenyl-d14 (Surr)	21-130

# Column to be used to flag recovery values

FORM II  
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment Level: Low

GC Column (1): Rxi-5SilMS ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	NBZ #	FBP #	TPH #
SD-A01	180-37750-1	89	80	75
SD-A02	180-37750-2	71	69	57
SD-A03	180-37750-3	76	65	55

	<u>QC LIMITS</u>
NBZ = Nitrobenzene-d5 (Surr)	27-110
FBP = 2-Fluorobiphenyl	28-108
TPH = Terphenyl-d14 (Surr)	21-130

# Column to be used to flag recovery values

FORM II 8270D LL

FORM III  
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: V1028007.D  
 Lab ID: LCS 180-122598/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	333	229	69	43-111	
Benzidine	333	80.2 J	24	10-150	
Benzo[a]anthracene	333	221	66	45-110	
Benzo[b]fluoranthene	333	200	60	37-108	
Benzo[k]fluoranthene	333	212	64	39-115	
Benzoic acid	333	324	97	10-93	*
Benzo[g,h,i]perylene	333	197	59	35-127	
Benzo[a]pyrene	333	212	63	42-114	
Bis(2-chloroethoxy)methane	333	223	67	42-103	
Bis(2-chloroethyl)ether	333	207	62	40-100	
2,2'-oxybis[1-chloropropane]	333	194	58	37-105	
Acenaphthene	333	239	72	42-104	
4-Bromophenyl phenyl ether	333	253	76	43-111	
Acenaphthylene	333	228	68	43-117	
4-Chlorophenyl phenyl ether	333	238	71	42-111	
2-Chloronaphthalene	333	213	64	40-104	
Butyl benzyl phthalate	333	250	75	40-117	
Chrysene	333	213	64	44-108	
Bis(2-ethylhexyl) phthalate	333	253	76	41-121	
Dibenz(a,h)anthracene	333	204	61	34-131	
Di-n-butyl phthalate	333	266	80	44-120	
Di-n-octyl phthalate	333	255	76	35-129	
Diethyl phthalate	333	283	85	44-113	
Dimethyl phthalate	333	252	76	44-111	
3,3'-Dichlorobenzidine	333	220	66	24-113	
2,4-Dinitrotoluene	333	252	76	48-118	
2,6-Dinitrotoluene	333	238	71	47-119	
2-Chlorophenol	333	219	66	40-105	
2,4-Dichlorophenol	333	206	62	44-110	
2,4-Dimethylphenol	333	233	70	39-106	
2,4-Dinitrophenol	667	516	77	19-140	
2-Nitrophenol	333	249	75	45-112	
2,4,6-Trichlorophenol	333	271	81	43-111	
1,2-Diphenylhydrazine (as Azobenzene)	333	271	81	29-110	
1,2,4-Trichlorobenzene	333	233	70	41-105	
4-Chloro-3-methylphenol	333	236	71	43-110	
4-Nitrophenol	667	792	119	27-131	
4,6-Dinitro-2-methylphenol	667	528	79	28-130	
Fluoranthene	333	245	74	40-118	
Fluorene	333	247	74	43-110	
Hexachlorobenzene	333	264	79	42-110	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: V1028007.D  
 Lab ID: LCS 180-122598/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Hexachlorobutadiene	333	258	78	40-114	
Hexachlorocyclopentadiene	333	262	79	10-150	
Hexachloroethane	333	224	67	40-102	
Indeno[1,2,3-cd]pyrene	333	197	59	34-130	
Isophorone	333	264	79	39-114	
Naphthalene	333	217	65	42-104	
Nitrobenzene	333	263	79	40-109	
N-Nitrosodi-n-propylamine	333	255	77	42-108	
N-Nitrosodimethylamine	333	303	91	33-116	
N-Nitrosodiphenylamine	333	227	68	41-110	
Phenanthrene	333	225	67	41-107	
Pyrene	333	206	62	39-113	
Pentachlorophenol	667	526	79	18-125	
Phenol	333	220	66	39-105	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low Lab File ID: V1030026.D  
Lab ID: 180-37750-4 MS Client ID: SD-B01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	470	ND	320	68	42-104	
Acenaphthylene	470	ND	322	69	43-117	
Anthracene	470	ND	334	71	43-111	
Benzidine	470	ND	ND	0	10-150	F1
Benzo[a]anthracene	470	ND	372	79	45-110	
Benzo[b]fluoranthene	470	ND	294	63	37-108	
Benzo[k]fluoranthene	470	ND	305	65	39-115	
Benzoic acid	470	ND	224 J	48	10-93	
Benzo[g,h,i]perylene	470	ND	448	95	35-127	
Benzo[a]pyrene	470	ND	331	70	42-114	
Bis(2-chloroethoxy)methane	470	ND	333	71	42-103	
Bis(2-chloroethyl)ether	470	ND	293	62	40-100	
Bis(2-ethylhexyl) phthalate	470	ND	464	99	41-121	
2,2'-oxybis[1-chloropropane]	470	ND	283	60	37-105	
4-Bromophenyl phenyl ether	470	ND	455	97	43-111	
4-Chlorophenyl phenyl ether	470	ND	334	71	42-111	
2-Chloronaphthalene	470	ND	303	64	40-104	
Butyl benzyl phthalate	470	ND	468	100	40-117	
Chrysene	470	ND	343	73	44-108	
Dibenz(a,h)anthracene	470	ND	399	85	34-131	
Di-n-butyl phthalate	470	ND	369	78	44-120	
Di-n-octyl phthalate	470	ND	423	90	35-129	
Diethyl phthalate	470	ND	409	87	44-113	
Dimethyl phthalate	470	ND	379	81	44-111	
3,3'-Dichlorobenzidine	470	ND	333	71	24-113	
2,4-Dinitrotoluene	470	ND	383	81	48-118	
2,6-Dinitrotoluene	470	ND	380	81	47-119	
2-Chlorophenol	470	ND	298	63	40-105	
2,4-Dichlorophenol	470	ND	316	67	44-110	
2,4-Dimethylphenol	470	ND	352	75	39-106	
2,4-Dinitrophenol	940	ND	222 J	24	19-140	
2-Nitrophenol	470	ND	331	70	45-112	
2,4,6-Trichlorophenol	470	ND	355	76	43-111	
1,2-Diphenylhydrazine (as Azobenzene)	470	ND	611	130	29-110	F1
1,2,4-Trichlorobenzene	470	ND	306	65	41-105	
4-Chloro-3-methylphenol	470	ND	349	74	43-110	
4-Nitrophenol	940	ND	1100	117	27-131	
4,6-Dinitro-2-methylphenol	940	ND	744	79	28-130	
Fluoranthene	470	7.7 J	307	64	40-118	
Fluorene	470	ND	336	71	43-110	
Hexachlorobenzene	470	ND	419	89	42-110	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: V1030026.D  
 Lab ID: 180-37750-4 MS Client ID: SD-B01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Hexachlorobutadiene	470	ND	346	74	40-114	
Hexachlorocyclopentadiene	470	ND	17.4 J	4	10-150	F1
Hexachloroethane	470	ND	245	52	40-102	
Indeno[1,2,3-cd]pyrene	470	ND	424	90	34-130	
Isophorone	470	ND	399	85	39-114	
Naphthalene	470	4.1 J	298	62	42-104	
Nitrobenzene	470	ND	393	84	40-109	
N-Nitrosodi-n-propylamine	470	ND	380	81	42-108	
N-Nitrosodimethylamine	470	ND	421	90	33-116	
N-Nitrosodiphenylamine	470	ND	465	99	41-110	
Phenanthrene	470	ND	340	72	41-107	
Pyrene	470	7.9 J	349	72	39-113	
Pentachlorophenol	940	ND	119	13	18-125	F1
Phenol	470	ND	313	67	39-105	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: V1030027.D  
 Lab ID: 180-37750-4 MSD Client ID: SD-B01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Acenaphthene	472	342	72	7	34	42-104	
Acenaphthylene	472	348	74	8	36	43-117	
Anthracene	472	352	75	5	35	43-111	
Benzidine	472	ND	0	NC	30	10-150	F1
Benzo[a]anthracene	472	355	75	5	31	45-110	
Benzo[b]fluoranthene	472	282	60	4	28	37-108	
Benzo[k]fluoranthene	472	299	63	2	42	39-115	
Benzoic acid	472	236 J	50	5	36	10-93	
Benzo[g,h,i]perylene	472	419	89	7	21	35-127	
Benzo[a]pyrene	472	317	67	4	31	42-114	
Bis(2-chloroethoxy)methane	472	337	72	1	35	42-103	
Bis(2-chloroethyl)ether	472	323	69	10	33	40-100	
Bis(2-ethylhexyl) phthalate	472	455	96	2	31	41-121	
2,2'-oxybis[1-chloropropane]	472	303	64	7	31	37-105	
4-Bromophenyl phenyl ether	472	487	103	7	20	43-111	
4-Chlorophenyl phenyl ether	472	351	74	5	37	42-111	
2-Chloronaphthalene	472	323	68	6	34	40-104	
Butyl benzyl phthalate	472	440	93	6	34	40-117	
Chrysene	472	330	70	4	31	44-108	
Dibenz(a,h)anthracene	472	394	83	1	32	34-131	
Di-n-butyl phthalate	472	395	84	7	34	44-120	
Di-n-octyl phthalate	472	396	84	7	33	35-129	
Diethyl phthalate	472	446	95	9	32	44-113	
Dimethyl phthalate	472	412	87	8	34	44-111	
3,3'-Dichlorobenzidine	472	306	65	8	30	24-113	
2,4-Dinitrotoluene	472	406	86	6	33	48-118	
2,6-Dinitrotoluene	472	399	85	5	30	47-119	
2-Chlorophenol	472	321	68	7	37	40-105	
2,4-Dichlorophenol	472	326	69	3	27	44-110	
2,4-Dimethylphenol	472	397	84	12	42	39-106	
2,4-Dinitrophenol	944	247 J	26	10	43	19-140	
2-Nitrophenol	472	356	75	7	30	45-112	
2,4,6-Trichlorophenol	472	379	80	6	36	43-111	
1,2-Diphenylhydrazine (as Azobenzene)	472	654	139	7	33	29-110	F1
1,2,4-Trichlorobenzene	472	341	72	11	36	41-105	
4-Chloro-3-methylphenol	472	389	82	11	31	43-110	
4-Nitrophenol	944	1110	118	1	33	27-131	
4,6-Dinitro-2-methylphenol	944	830	88	11	35	28-130	
Fluoranthene	472	319	66	4	23	40-118	
Fluorene	472	356	76	6	37	43-110	
Hexachlorobenzene	472	467	99	11	29	42-110	

# Column to be used to flag recovery and RPD values



FORM III  
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Level: Low Lab File ID: V1030027.D  
 Lab ID: 180-37750-4 MSD Client ID: SD-B01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Hexachlorobutadiene	472	382	81	10	25	40-114	
Hexachlorocyclopentadiene	472	18.0 J	4	3	33	10-150	F1
Hexachloroethane	472	247	52	1	34	40-102	
Indeno[1,2,3-cd]pyrene	472	394	84	7	30	34-130	
Isophorone	472	430	91	8	33	39-114	
Naphthalene	472	321	67	8	25	42-104	
Nitrobenzene	472	413	88	5	31	40-109	
N-Nitrosodi-n-propylamine	472	389	82	2	32	42-108	
N-Nitrosodimethylamine	472	442	94	5	30	33-116	
N-Nitrosodiphenylamine	472	516	109	10	32	41-110	
Phenanthrene	472	365	77	7	20	41-107	
Pyrene	472	346	72	1	28	39-113	
Pentachlorophenol	944	150	16	23	34	18-125	F1
Phenol	472	335	71	7	40	39-105	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: V1028005.D Lab Sample ID: MB 180-122598/1-A  
Matrix: Sediment Date Extracted: 10/24/2014 03:10  
Instrument ID: CH731 Date Analyzed: 10/28/2014 13:21  
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-122598/2-A	V1028007.D	10/28/2014 14:18
SD-A01	180-37750-1	V1028026.D	10/28/2014 23:26
SD-A02	180-37750-2	V1028027.D	10/28/2014 23:54
SD-A03	180-37750-3	V1030024.D	10/30/2014 19:12
SD-B01	180-37750-4	V1030025.D	10/30/2014 19:40
SD-B01 MS	180-37750-4 MS	V1030026.D	10/30/2014 20:08
SD-B01 MSD	180-37750-4 MSD	V1030027.D	10/30/2014 20:37
SD-B02	180-37750-5	D1031026.D	10/31/2014 21:30
SD-B02-FD	180-37750-6	D1031027.D	10/31/2014 21:56
SD-C01	180-37750-7	D1031028.D	10/31/2014 22:22
SD-C02	180-37750-8	D1031029.D	10/31/2014 22:48
SD-C03	180-37750-9	D1031030.D	10/31/2014 23:14

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: V0828002.D DFTPP Injection Date: 08/28/2014  
Instrument ID: CH731 DFTPP Injection Time: 02:04  
Analysis Batch No.: 116278

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	43.7
68	Less than 2.0 % of mass 69	0.9 (1.7) 1
69	Mass 69 relative abundance	50.1
70	Less than 2.0 % of mass 69	0.5 (0.9) 1
127	40.0 - 60.0 % of mass 198	51.8
197	Less than 1.0 % of mass 198	0.1
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	21.4
365	Greater than 1.0 % of mass 198	2.1
441	Present but less than mass 443	9.4 (75.2) 3
442	Greater than 40.0 % of mass 198	67.4
443	17.0 - 23.0 % of mass 442	12.6 (18.6) 2

1-Value is % mass 69                      2-Value is % mass 442                      3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-116278/3	V0828003.D	08/28/2014	02:22
	IC 180-116278/4	V0828004.D	08/28/2014	02:52
	IC 180-116278/5	V0828005.D	08/28/2014	03:21
	ICIS 180-116278/6	V0828006.D	08/28/2014	03:50
	IC 180-116278/7	V0828007.D	08/28/2014	04:19
	IC 180-116278/8	V0828008.D	08/28/2014	04:48
	IC 180-116278/9	V0828009.D	08/28/2014	05:18
	IC 180-116278/10	V0828010.D	08/28/2014	05:47

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: V1028002.D DFTPP Injection Date: 10/28/2014  
Instrument ID: CH731 DFTPP Injection Time: 12:06  
Analysis Batch No.: 122953

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	49.1
68	Less than 2.0 % of mass 69	0.5 (1.0)1
69	Mass 69 relative abundance	54.7
70	Less than 2.0 % of mass 69	0.5 (0.9)1
127	40.0 - 60.0 % of mass 198	52.0
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.5
275	10.0 - 30.0 % of mass 198	23.1
365	Greater than 1.0 % of mass 198	3.5
441	Present but less than mass 443	7.8 (68.8)3
442	Greater than 40.0 % of mass 198	63.6
443	17.0 - 23.0 % of mass 442	11.4 (17.9)2

1-Value is % mass 69                      2-Value is % mass 442                      3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-122953/3	V1028003.D	10/28/2014	12:23
	MB 180-122598/1-A	V1028005.D	10/28/2014	13:21
	LCS 180-122598/2-A	V1028007.D	10/28/2014	14:18
SD-A01	180-37750-1	V1028026.D	10/28/2014	23:26
SD-A02	180-37750-2	V1028027.D	10/28/2014	23:54

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: V1030002.D DFTPP Injection Date: 10/30/2014  
Instrument ID: CH731 DFTPP Injection Time: 08:58  
Analysis Batch No.: 123272

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	52.6
68	Less than 2.0 % of mass 69	1.1 (1.9)1
69	Mass 69 relative abundance	56.8
70	Less than 2.0 % of mass 69	0.1 (0.1)1
127	40.0 - 60.0 % of mass 198	52.4
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	23.5
365	Greater than 1.0 % of mass 198	2.7
441	Present but less than mass 443	8.7 (76.3)3
442	Greater than 40.0 % of mass 198	60.5
443	17.0 - 23.0 % of mass 442	11.4 (18.9)2

1-Value is % mass 69                      2-Value is % mass 442                      3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-123272/3	V1030003.D	10/30/2014	09:16
SD-A03	180-37750-3	V1030024.D	10/30/2014	19:12
SD-B01	180-37750-4	V1030025.D	10/30/2014	19:40
SD-B01 MS	180-37750-4 MS	V1030026.D	10/30/2014	20:08
SD-B01 MSD	180-37750-4 MSD	V1030027.D	10/30/2014	20:37

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: D0728002.D DFTPP Injection Date: 07/28/2014  
Instrument ID: CH732 DFTPP Injection Time: 04:36  
Analysis Batch No.: 112749

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	35.8
68	Less than 2.0 % of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	39.0
70	Less than 2.0 % of mass 69	0.1 (0.3) 1
127	40.0 - 60.0 % of mass 198	40.7
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	25.0
365	Greater than 1.0 % of mass 198	2.2
441	Present but less than mass 443	3.5 (27.5) 3
442	Greater than 40.0 % of mass 198	64.7
443	17.0 - 23.0 % of mass 442	12.6 (19.5) 2

1-Value is % mass 69                      2-Value is % mass 442                      3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-112749/3	D0728003.D	07/28/2014	04:52
	IC 180-112749/4	D0728004.D	07/28/2014	05:18
	IC 180-112749/5	D0728005.D	07/28/2014	05:44
	ICIS 180-112749/6	D0728006.D	07/28/2014	06:10
	IC 180-112749/7	D0728007.D	07/28/2014	06:37
	IC 180-112749/8	D0728008.D	07/28/2014	07:03
	IC 180-112749/9	D0728009.D	07/28/2014	07:29
	IC 180-112749/10	D0728010.D	07/28/2014	07:56

FORM V  
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab File ID: D1031002.D DFTPP Injection Date: 10/31/2014  
Instrument ID: CH732 DFTPP Injection Time: 11:38  
Analysis Batch No.: 123453

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	44.8
68	Less than 2.0 % of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	48.2
70	Less than 2.0 % of mass 69	0.1 (0.1) 1
127	40.0 - 60.0 % of mass 198	45.4
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	7.1
275	10.0 - 30.0 % of mass 198	27.2
365	Greater than 1.0 % of mass 198	3.2
441	Present but less than mass 443	9.4 (69.7) 3
442	Greater than 40.0 % of mass 198	66.8
443	17.0 - 23.0 % of mass 442	13.5 (20.2) 2

1-Value is % mass 69                      2-Value is % mass 442                      3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-123453/3	D1031003.D	10/31/2014	11:53
SD-B02	180-37750-5	D1031026.D	10/31/2014	21:30
SD-B02-FD	180-37750-6	D1031027.D	10/31/2014	21:56
SD-C01	180-37750-7	D1031028.D	10/31/2014	22:22
SD-C02	180-37750-8	D1031029.D	10/31/2014	22:48
SD-C03	180-37750-9	D1031030.D	10/31/2014	23:14

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Sample No.: CCVIS 180-122953/3 Date Analyzed: 10/28/2014 12:23  
Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
Lab File ID (Standard): V1028003.D Heated Purge: (Y/N) N  
Calibration ID: 17523

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		142836	6.21	498190	7.42	255283	9.04
UPPER LIMIT		285672	6.71	996380	7.92	510566	9.54
LOWER LIMIT		71418	5.71	249095	6.92	127642	8.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-122598/1-A		141665	6.21	521653	7.41	285807	9.04
LCS 180-122598/2-A		147522	6.21	509855	7.42	281993	9.04
180-37750-1	SD-A01	118072	6.21	409622	7.40	201423	9.02
180-37750-2	SD-A02	121425	6.22	399810	7.42	201997	9.03

DCB = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits



FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-122953/3 Date Analyzed: 10/28/2014 12:23  
 Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
 Lab File ID (Standard): V1028003.D Heated Purge: (Y/N) N  
 Calibration ID: 17523

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	390317	10.41	416247	13.91	315140	16.83
UPPER LIMIT	780634	10.91	832494	14.41	630280	17.33
LOWER LIMIT	195159	9.91	208124	13.41	157570	16.33
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-122598/1-A		493077	10.41	494616	13.91	393009 16.83
LCS 180-122598/2-A		453880	10.41	505891	13.91	395719 16.82
180-37750-1	SD-A01	306567	10.39	337979	13.85	303201 16.74
180-37750-2	SD-A02	349464	10.41	473802	13.88	501639 16.79

PHN = Phenanthrene-d10

CRY = Chrysene-d12

PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Sample No.: CCVIS 180-123272/3 Date Analyzed: 10/30/2014 09:16  
Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
Lab File ID (Standard): V1030003.D Heated Purge: (Y/N) N  
Calibration ID: 17523

	DCB		NPT		ANT		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	226012	6.22	812871	7.42	440757	9.04	
UPPER LIMIT	452024	6.72	1625742	7.92	881514	9.54	
LOWER LIMIT	113006	5.72	406436	6.92	220379	8.54	
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-37750-3	SD-A03	192660	6.22	685596	7.42	329343	9.04
180-37750-4	SD-B01	210602	6.22	723458	7.42	390131	9.04
180-37750-4 MS	SD-B01 MS	192919	6.22	684209	7.42	359078	9.04
180-37750-4 MSD	SD-B01 MSD	232998	6.22	809391	7.42	419490	9.04

DCB = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-123272/3 Date Analyzed: 10/30/2014 09:16  
 Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
 Lab File ID (Standard): V1030003.D Heated Purge: (Y/N) N  
 Calibration ID: 17523

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	712549	10.40	615544	13.86	360732	16.76	
UPPER LIMIT	1425098	10.90	1231088	14.36	721464	17.26	
LOWER LIMIT	356275	9.90	307772	13.36	180366	16.26	
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-37750-3	SD-A03	414893	10.41	366088	13.88	340865	16.79
180-37750-4	SD-B01	398734	10.41	324423	13.88	285977	16.79
180-37750-4 MS	SD-B01 MS	401162	10.41	333063	13.88	301442	16.79
180-37750-4 MSD	SD-B01 MSD	467896	10.41	418132	13.88	370474	16.78

PHN = Phenanthrene-d10

CRY = Chrysene-d12

PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Sample No.: CCVIS 180-123453/3 Date Analyzed: 10/31/2014 11:53  
Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
Lab File ID (Standard): D1031003.D Heated Purge: (Y/N) N  
Calibration ID: 18593

	DCB		NPT		ANT	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	280571	6.14	1099489	7.44	662970	9.15
UPPER LIMIT	561142	6.64	2198978	7.94	1325940	9.65
LOWER LIMIT	140286	5.64	549745	6.94	331485	8.65
LAB SAMPLE ID	CLIENT SAMPLE ID					
180-37750-5	SD-B02	251591	6.13	953256	7.43	527621 9.16
180-37750-6	SD-B02-FD	251845	6.13	975885	7.43	549087 9.16
180-37750-7	SD-C01	267582	6.13	1059290	7.43	636165 9.16
180-37750-8	SD-C02	266819	6.13	1031424	7.44	598733 9.16
180-37750-9	SD-C03	239975	6.13	922574	7.43	514011 9.16

DCB = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-123453/3 Date Analyzed: 10/31/2014 11:53  
 Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm)  
 Lab File ID (Standard): D1031003.D Heated Purge: (Y/N) N  
 Calibration ID: 18593

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	1118062	10.60	995272	14.38	749713	17.28	
UPPER LIMIT	2236124	11.10	1990544	14.88	1499426	17.78	
LOWER LIMIT	559031	10.10	497636	13.88	374857	16.78	
LAB SAMPLE ID	CLIENT SAMPLE ID						
180-37750-5	SD-B02	811496	10.61	731282	14.41	698547	17.34
180-37750-6	SD-B02-FD	860365	10.61	787260	14.42	752927	17.35
180-37750-7	SD-C01	1035472	10.62	858809	14.43	735650	17.35
180-37750-8	SD-C02	909766	10.62	796984	14.42	726115	17.34
180-37750-9	SD-C03	813981	10.62	760629	14.43	773279	17.35

PHN = Phenanthrene-d10

CRY = Chrysene-d12

PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area

RT Limit =  $\pm$  0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-A01</u>	Lab Sample ID: <u>180-37750-1</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1028026.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 11:45</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.1(g)</u>	Date Analyzed: <u>10/28/2014 23:26</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>31.5</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>122953</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		20	1.9
56-55-3	Benzo[a]anthracene	ND		20	2.4
205-99-2	Benzo[b]fluoranthene	ND		20	3.1
207-08-9	Benzo[k]fluoranthene	ND		20	3.9
191-24-2	Benzo[g,h,i]perylene	ND		20	1.9
50-32-8	Benzo[a]pyrene	ND		20	1.9
218-01-9	Chrysene	ND		20	2.3
53-70-3	Dibenz(a,h)anthracene	ND		20	2.2
206-44-0	Fluoranthene	18	J	20	2.1
86-73-7	Fluorene	ND		20	2.6
193-39-5	Indeno[1,2,3-cd]pyrene	ND		20	2.0
85-01-8	Phenanthrene	ND		20	3.1
129-00-0	Pyrene	14	J	20	2.0
83-32-9	Acenaphthene	ND		20	1.9
208-96-8	Acenaphthylene	ND		20	2.2
91-20-3	Naphthalene	8.7	J	20	1.7
117-81-7	Bis(2-ethylhexyl) phthalate	27	J	190	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	89		27-110
321-60-8	2-Fluorobiphenyl	80		28-108
1718-51-0	Terphenyl-d14 (Surr)	75		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D  
 Lims ID: 180-37750-A-1-A Lab Sample ID: 180-37750-1  
 Client ID: SD-A01  
 Sample Type: Client  
 Inject. Date: 28-Oct-2014 23:26:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Injection Vol: 2.0 ul Dil. Factor: 4.0000  
 Sample Info: 180-0004041-026  
 Misc. Info.: 180-37750-A-1-A  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:34 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 29-Oct-2014 02:20:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.208	6.211	-0.003	90	118072	8.00	
* 2 Naphthalene-d8	136	7.404	7.418	-0.014	99	409622	8.00	
* 3 Acenaphthene-d10	164	9.023	9.041	-0.018	93	201423	8.00	
* 4 Phenanthrene-d10	188	10.390	10.414	-0.024	96	306567	8.00	
* 5 Chrysene-d12	240	13.846	13.907	-0.061	96	337979	8.00	
* 6 Perylene-d12	264	16.741	16.829	-0.089	99	303201	8.00	
\$ 9 Nitrobenzene-d5	82	6.731	6.739	-0.008	94	166257	8.88	
\$ 10 2-Fluorobiphenyl	172	8.387	8.406	-0.019	99	276538	7.97	
\$ 12 Terphenyl-d14	244	12.131	12.171	-0.040	98	268393	7.48	
60 Naphthalene	128	7.426	7.439	-0.013	94	9630	0.1784	
89 Acenaphthylene	152		8.913				ND	
91 Acenaphthene	153		9.073				ND	
106 Fluorene	166		9.543				ND	
126 Phenanthrene	178		10.435				ND	
128 Anthracene	178		10.489				ND	
137 Fluoranthene	202	11.677	11.717	-0.040	92	16568	0.3621	
139 Pyrene	202	11.971	12.016	-0.045	95	15872	0.2935	
151 Bis(2-ethylhexyl) phthalat	149	13.798	13.854	-0.056	52	14955	0.5607	
152 Benzo[a]anthracene	228		13.891				ND	
153 Chrysene	228		13.960				ND	
158 Benzo[b]fluoranthene	252		16.033				ND	
159 Benzo[k]fluoranthene	252		16.081				ND	
160 Benzo[a]pyrene	252		16.711				ND	
163 Indeno[1,2,3-cd]pyrene	276		19.040				ND	
164 Dibenzo(a,h)anthracene	278		19.077				ND	
165 Benzo[g,h,i]perylene	276		19.633				ND	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent



Report Date: 29-Oct-2014 02:22:52

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D

Injection Date: 28-Oct-2014 23:26:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-A-1-A

Lab Sample ID: 180-37750-1

Worklist Smp#: 26

Client ID: SD-A01

Injection Vol: 2.0 ul

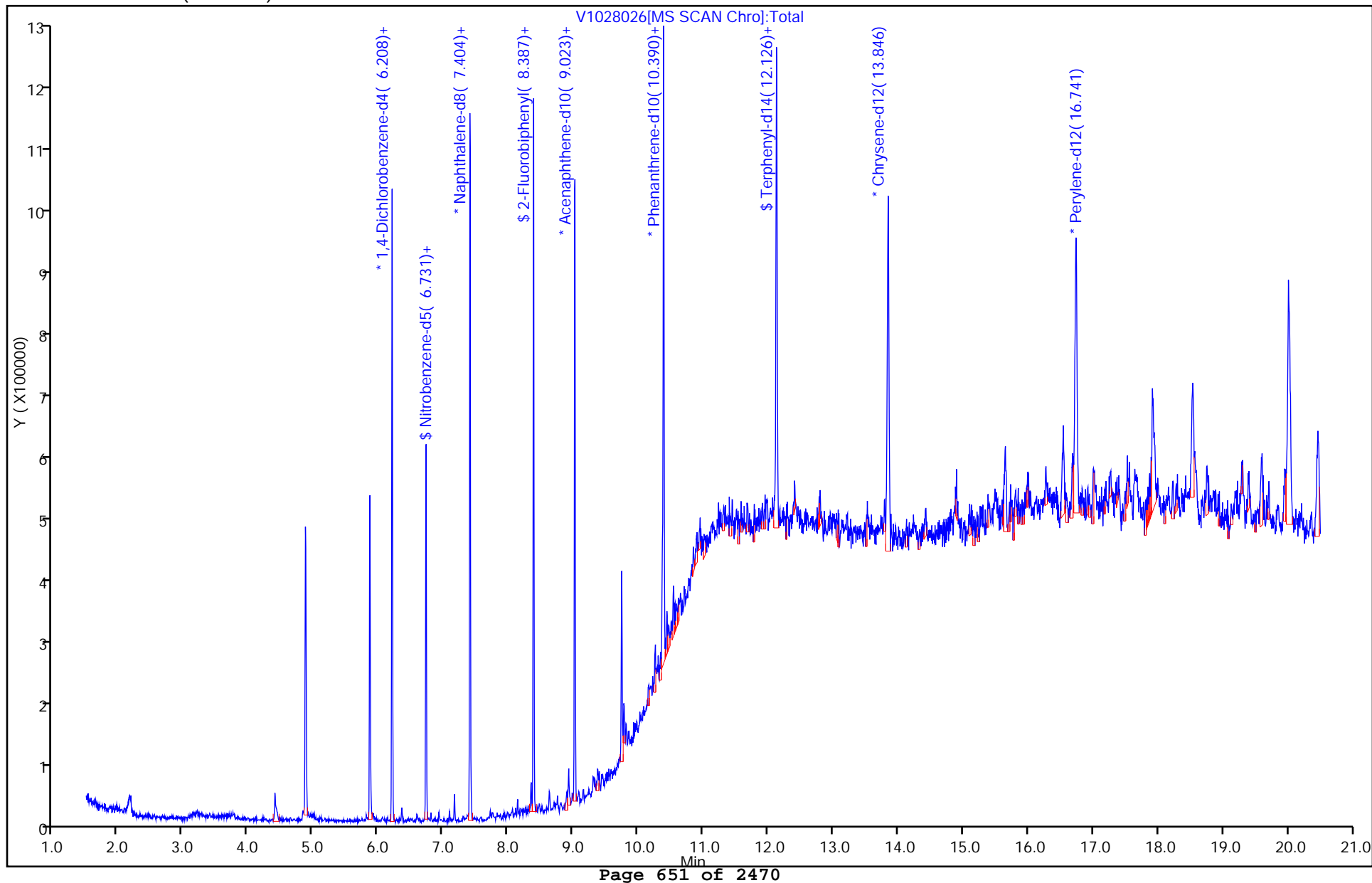
Dil. Factor: 4.0000

ALS Bottle#: 25

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D

Injection Date: 28-Oct-2014 23:26:30

Instrument ID: CH731

Lims ID: 180-37750-A-1-A

Lab Sample ID: 180-37750-1

Client ID: SD-A01

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

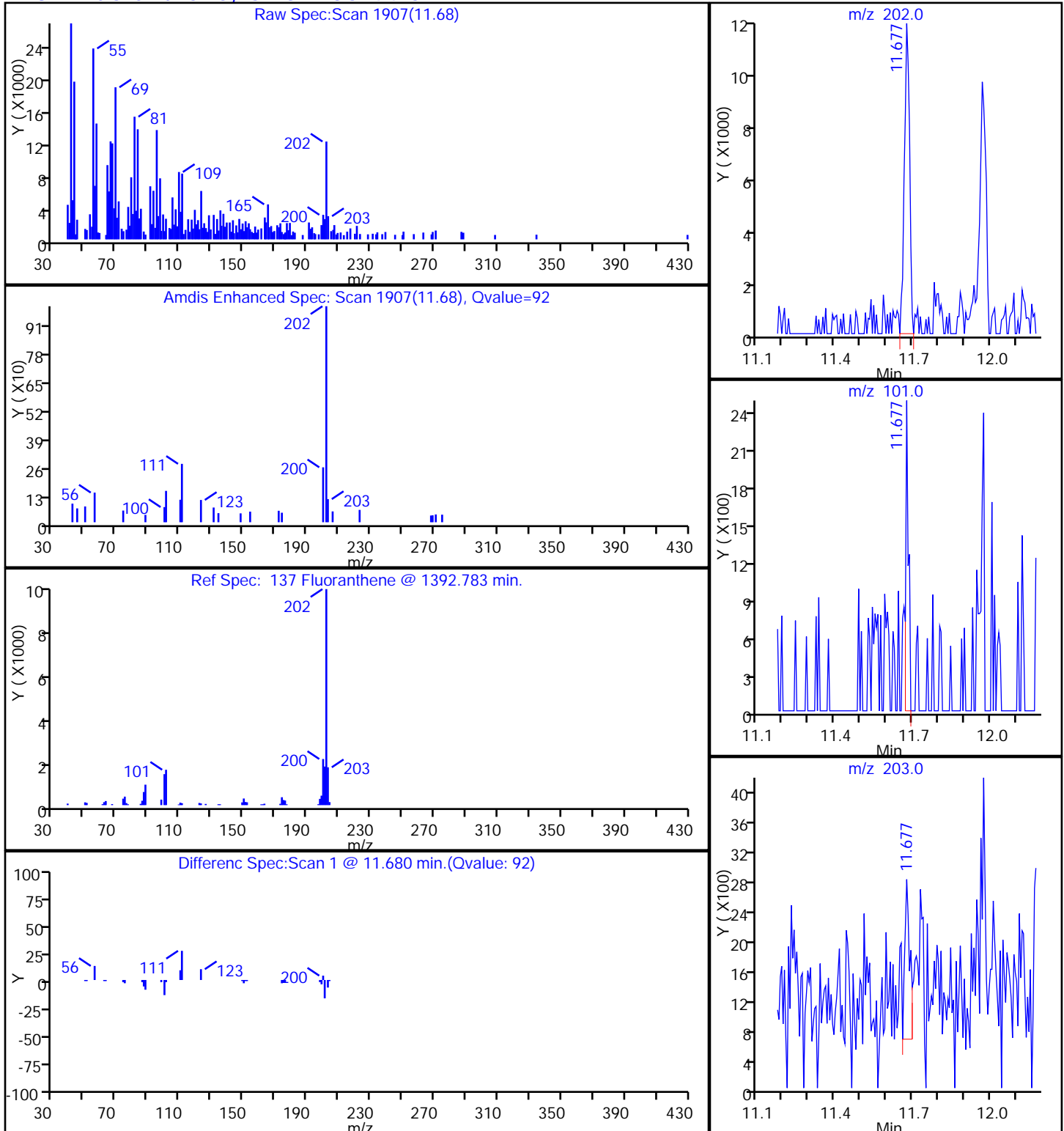
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**137 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D

Injection Date: 28-Oct-2014 23:26:30

Instrument ID: CH731

Lims ID: 180-37750-A-1-A

Lab Sample ID: 180-37750-1

Client ID: SD-A01

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

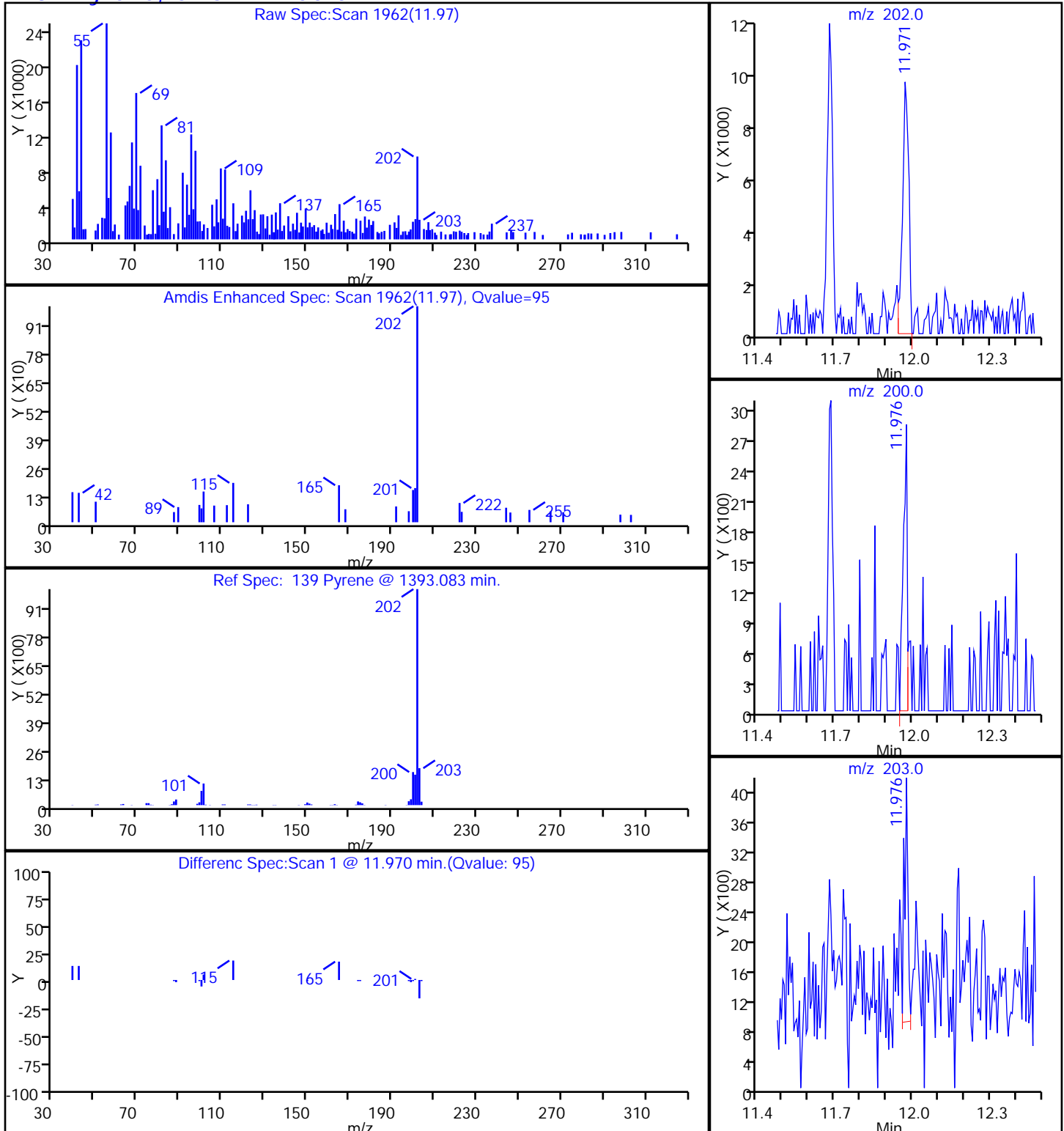
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**139 Pyrene, CAS: 129-00-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D

Injection Date: 28-Oct-2014 23:26:30

Instrument ID: CH731

Lims ID: 180-37750-A-1-A

Lab Sample ID: 180-37750-1

Client ID: SD-A01

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

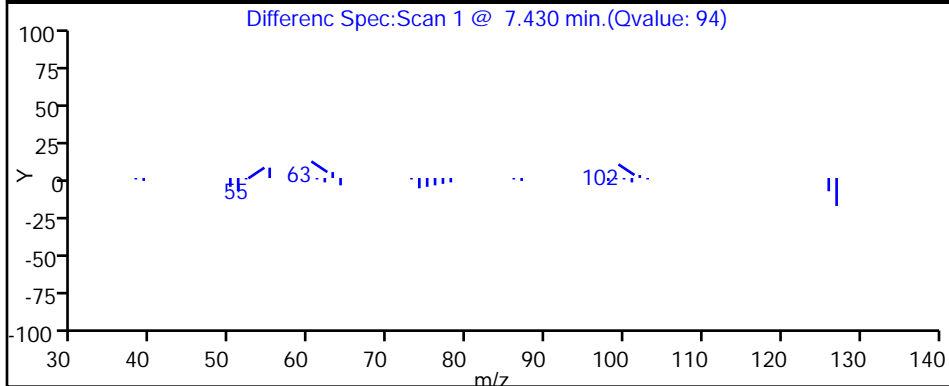
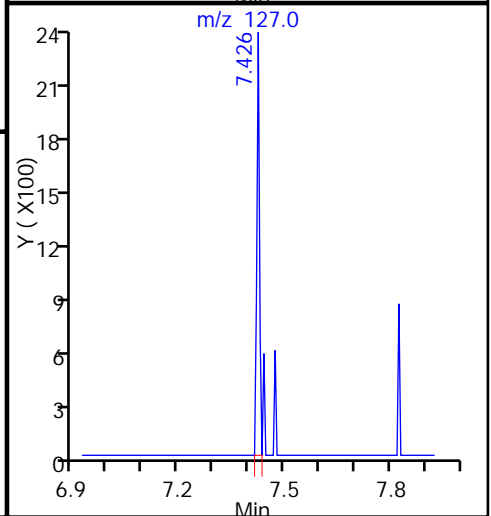
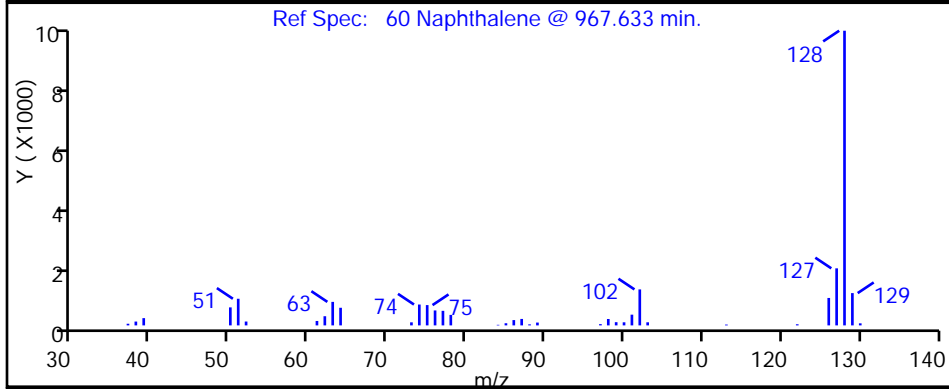
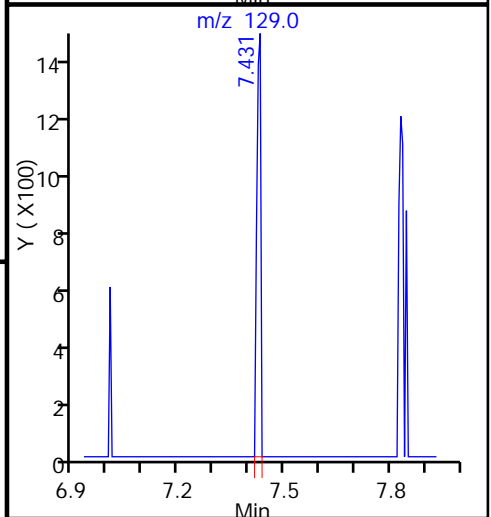
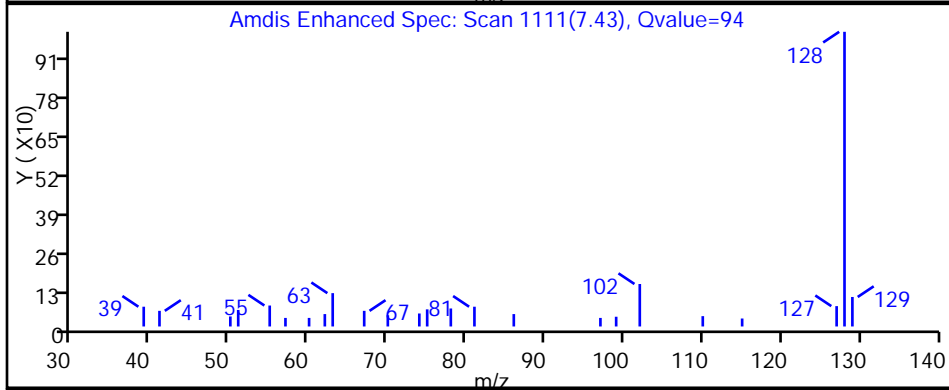
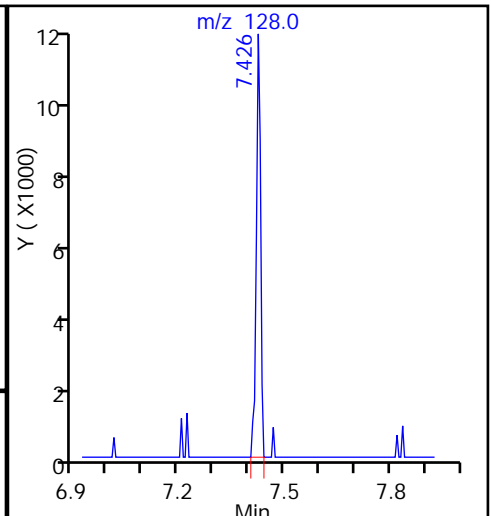
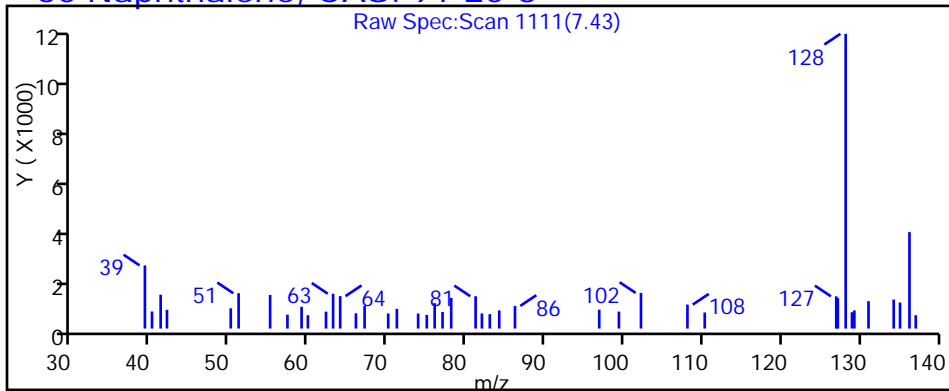
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**60 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028026.D

Injection Date: 28-Oct-2014 23:26:30

Instrument ID: CH731

Lims ID: 180-37750-A-1-A

Lab Sample ID: 180-37750-1

Client ID: SD-A01

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

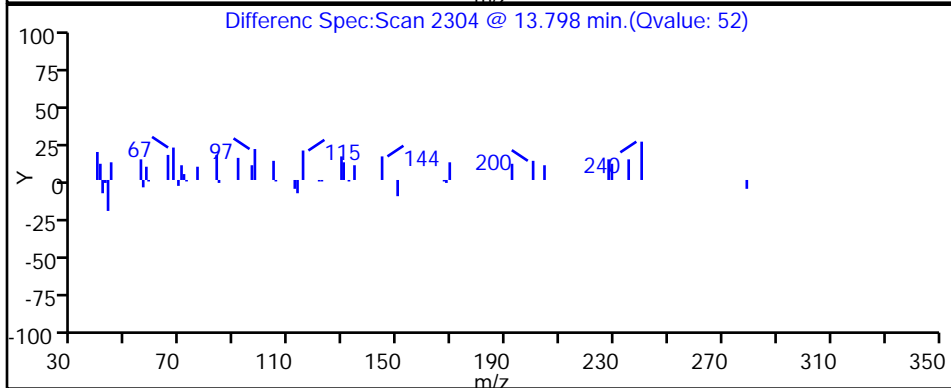
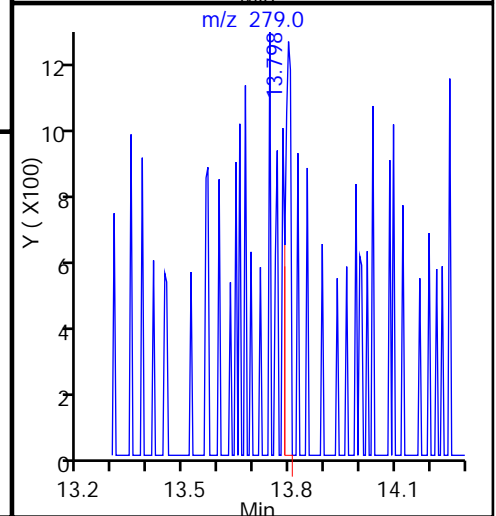
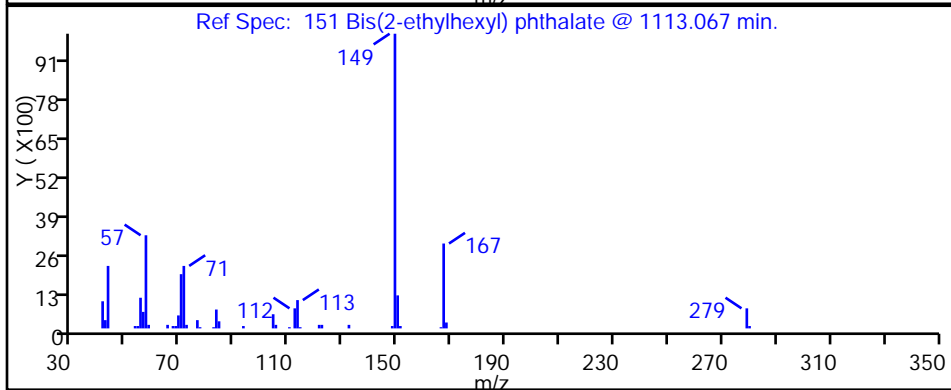
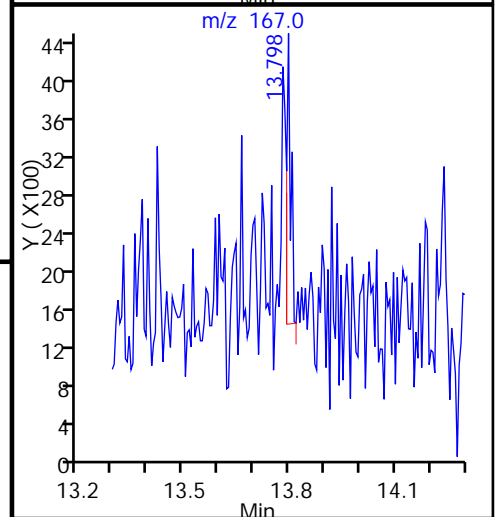
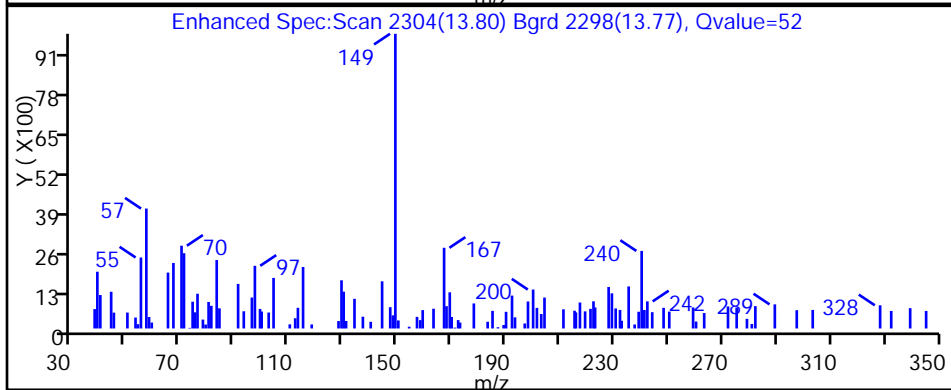
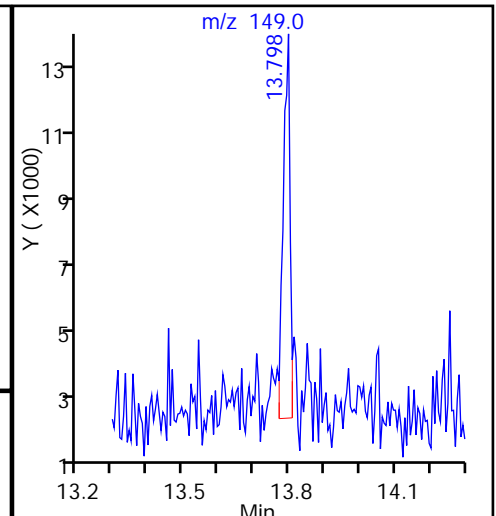
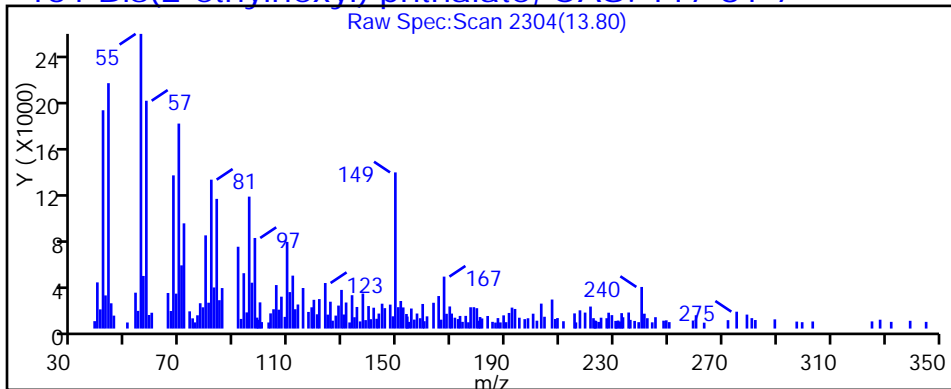
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**151 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-A02</u>	Lab Sample ID: <u>180-37750-2</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1028027.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 11:15</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/28/2014 23:54</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>65.7</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>122953</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	73		49	4.8
56-55-3	Benzo[a]anthracene	160		49	6.1
205-99-2	Benzo[b]fluoranthene	310		49	7.6
207-08-9	Benzo[k]fluoranthene	110		49	9.8
191-24-2	Benzo[g,h,i]perylene	260		49	4.8
50-32-8	Benzo[a]pyrene	210		49	4.9
218-01-9	Chrysene	210		49	5.8
53-70-3	Dibenz(a,h)anthracene	61		49	5.4
206-44-0	Fluoranthene	410		49	5.2
86-73-7	Fluorene	29	J	49	6.4
193-39-5	Indeno[1,2,3-cd]pyrene	250		49	5.0
85-01-8	Phenanthrene	120		49	7.7
129-00-0	Pyrene	270		49	4.9
83-32-9	Acenaphthene	ND		49	4.7
208-96-8	Acenaphthylene	76		49	5.6
91-20-3	Naphthalene	200		49	4.2
117-81-7	Bis(2-ethylhexyl) phthalate	250	J	490	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	71		27-110
321-60-8	2-Fluorobiphenyl	69		28-108
1718-51-0	Terphenyl-d14 (Surr)	57		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D  
 Lims ID: 180-37750-A-2-A Lab Sample ID: 180-37750-2  
 Client ID: SD-A02  
 Sample Type: Client  
 Inject. Date: 28-Oct-2014 23:54:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Injection Vol: 2.0 ul Dil. Factor: 5.0000  
 Sample Info: 180-0004041-027  
 Misc. Info.: 180-37750-A-2-A  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:34 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 29-Oct-2014 02:21:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.218	6.211	0.007	90	121425	8.00	
* 2 Naphthalene-d8	136	7.419	7.418	0.001	98	399810	8.00	
* 3 Acenaphthene-d10	164	9.032	9.041	-0.009	91	201997	8.00	
* 4 Phenanthrene-d10	188	10.405	10.414	-0.009	96	349464	8.00	
* 5 Chrysene-d12	240	13.877	13.907	-0.030	97	473802	8.00	
* 6 Perylene-d12	264	16.788	16.829	-0.041	98	501639	8.00	
\$ 9 Nitrobenzene-d5	82	6.741	6.739	0.002	95	104263	5.70	
\$ 10 2-Fluorobiphenyl	172	8.397	8.406	-0.009	98	191180	5.50	
\$ 12 Terphenyl-d14	244	12.152	12.171	-0.019	97	228789	4.55	
60 Naphthalene	128	7.441	7.439	0.002	97	87060	1.65	
89 Acenaphthylene	152	8.904	8.913	-0.009	96	27392	0.6261	
91 Acenaphthene	153		9.073				ND	
106 Fluorene	166	9.535	9.543	-0.009	43	7782	0.2392	
126 Phenanthrene	178	10.426	10.435	-0.009	92	49947	0.9826	
128 Anthracene	178	10.475	10.489	-0.014	89	30690	0.5993	
137 Fluoranthene	202	11.719	11.717	0.002	95	176278	3.38	
139 Pyrene	202	12.002	12.016	-0.014	97	165483	2.18	
151 Bis(2-ethylhexyl) phthalat	149	13.818	13.854	-0.036	86	77544	2.07	
152 Benzo[a]anthracene	228	13.861	13.891	-0.030	95	86746	1.35	
153 Chrysene	228	13.925	13.960	-0.035	90	105159	1.70	
158 Benzo[b]fluoranthene	252	15.992	16.033	-0.041	92	224733	2.55	
159 Benzo[k]fluoranthene	252	16.040	16.081	-0.041	59	71456	0.8832	
160 Benzo[a]pyrene	252	16.670	16.711	-0.041	77	132640	1.75	
163 Indeno[1,2,3-cd]pyrene	276	18.994	19.040	-0.046	73	162336	2.07	
164 Dibenzo(a,h)anthracene	278	19.004	19.077	-0.073	0	34084	0.5047	M
165 Benzo[g,h,i]perylene	276	19.570	19.633	-0.063	15	139939	2.14	M

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

[Reagents:](#)

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent



Report Date: 29-Oct-2014 02:22:53

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Worklist Smp#: 27

Client ID: SD-A02

Injection Vol: 2.0 ul

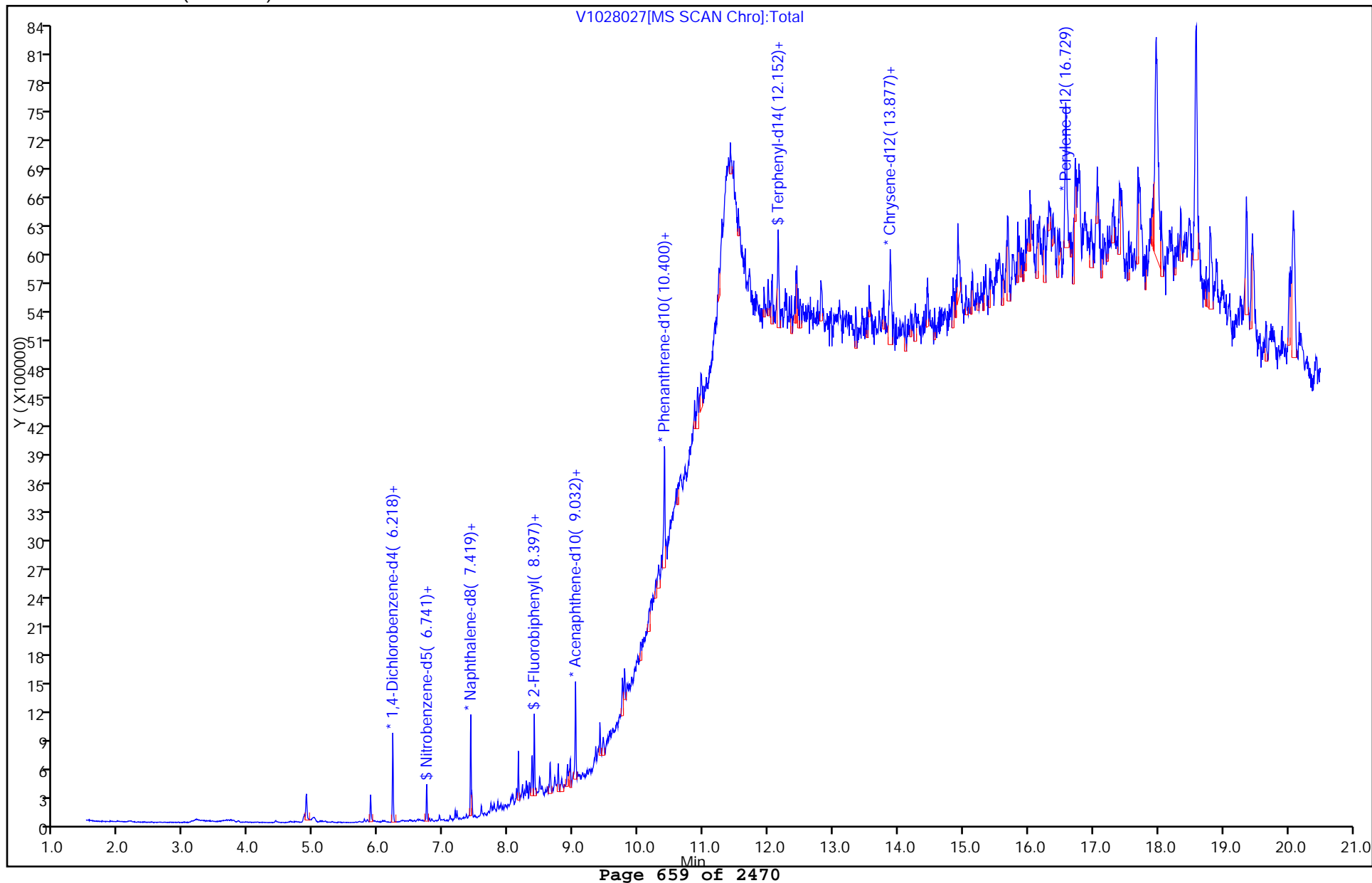
Dil. Factor: 5.0000

ALS Bottle#: 26

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

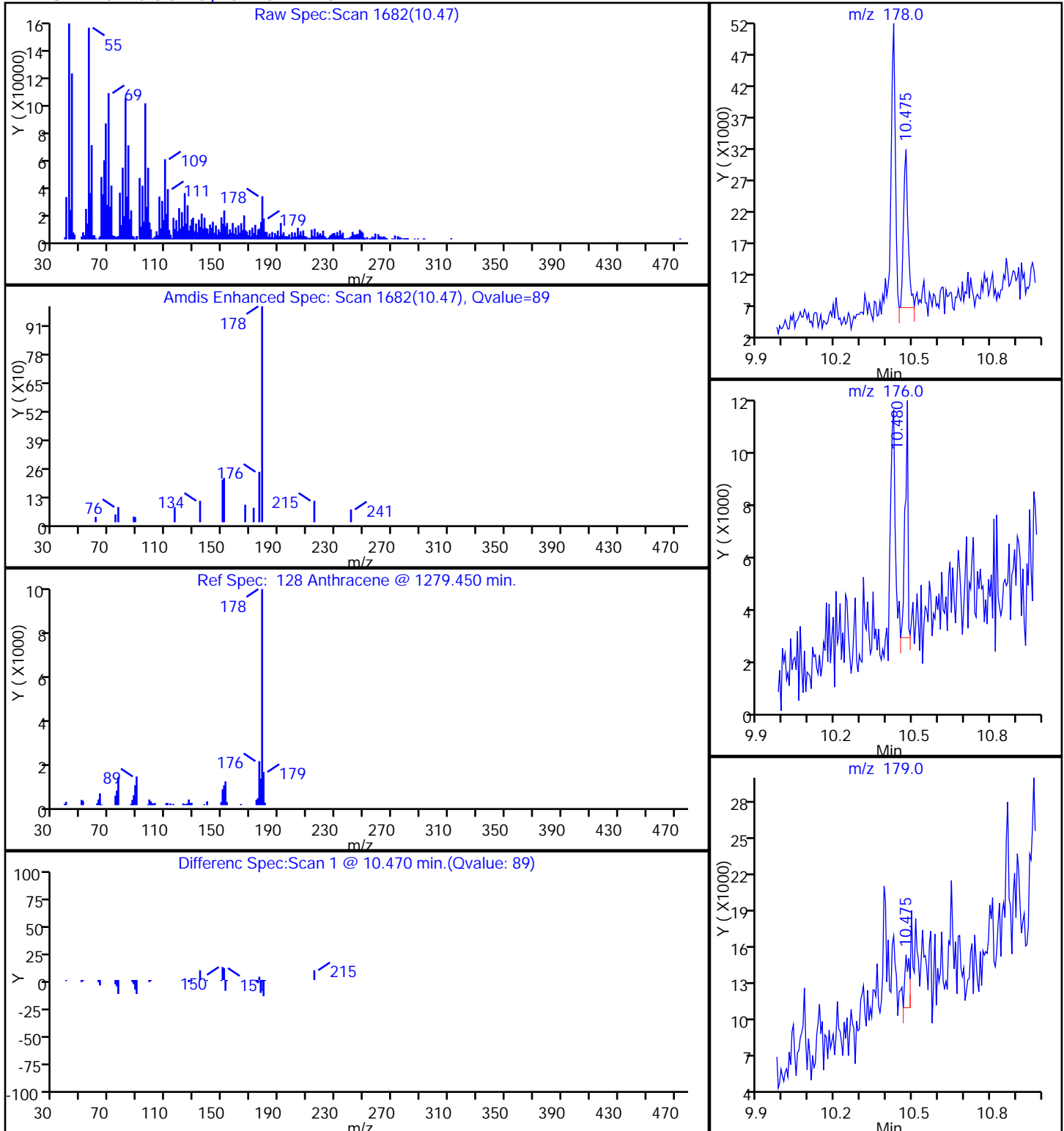
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**128 Anthracene, CAS: 120-12-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

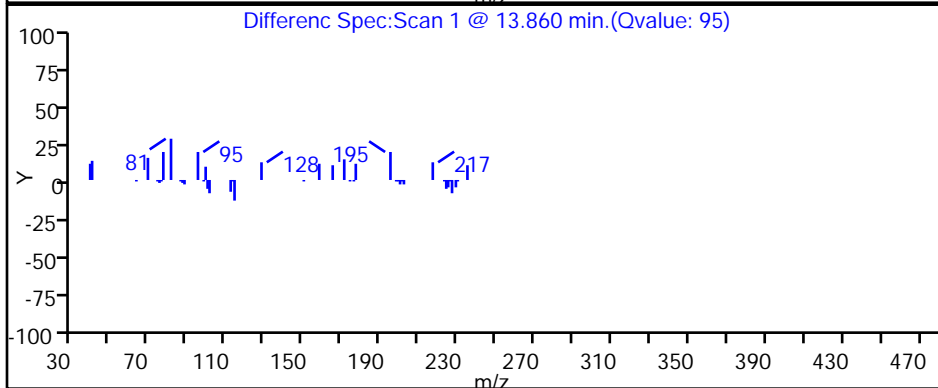
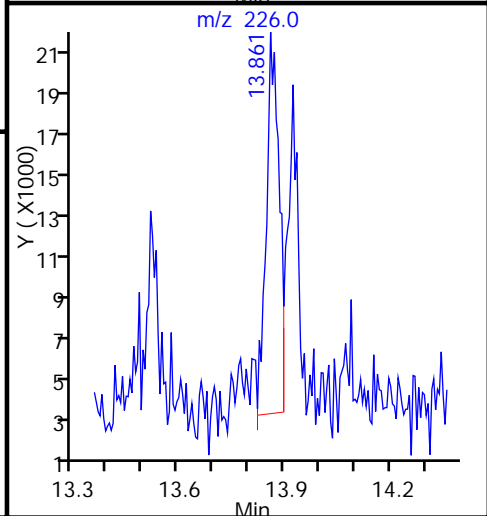
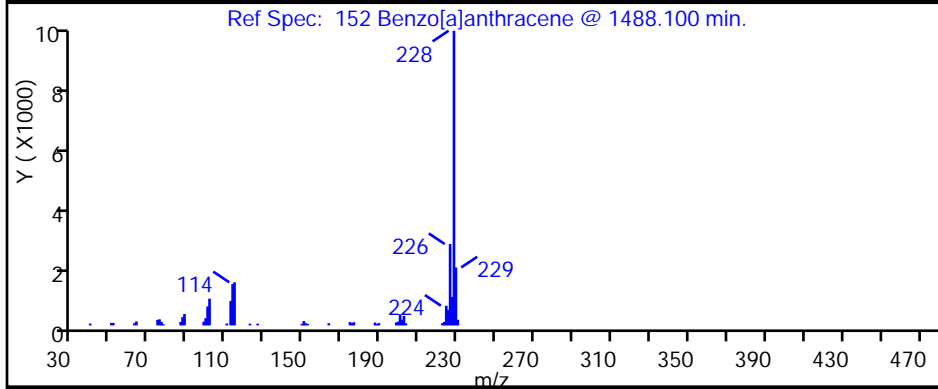
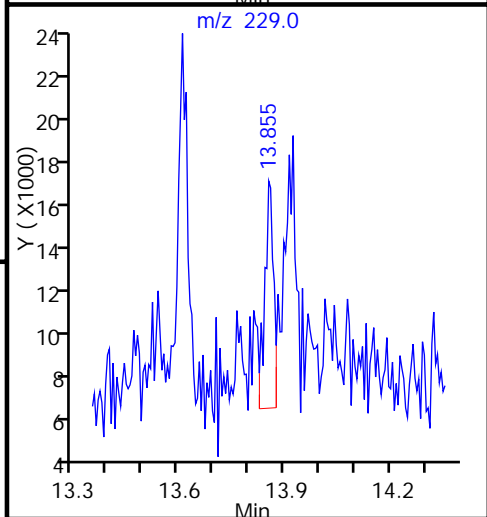
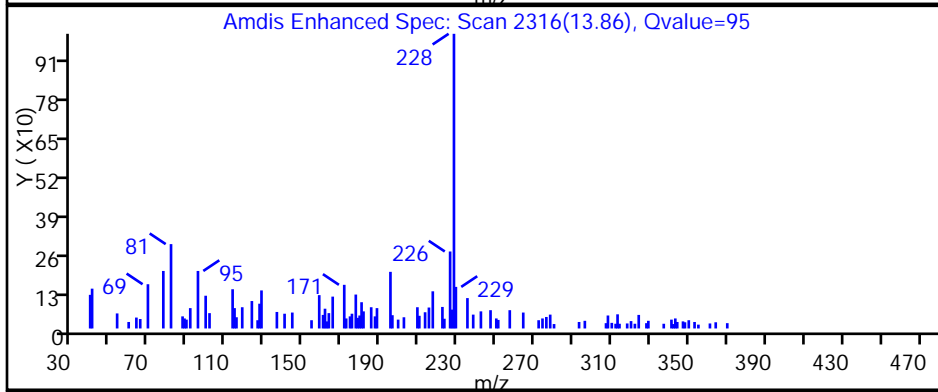
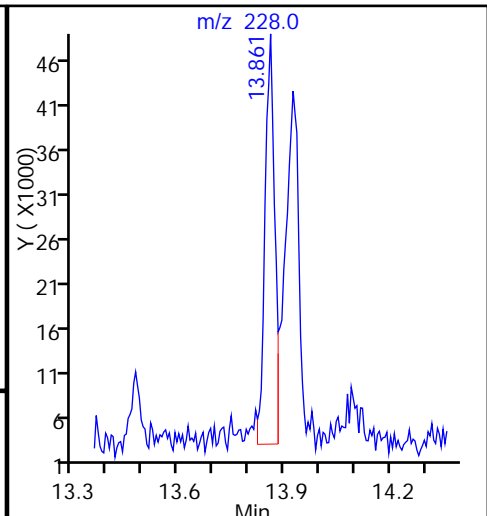
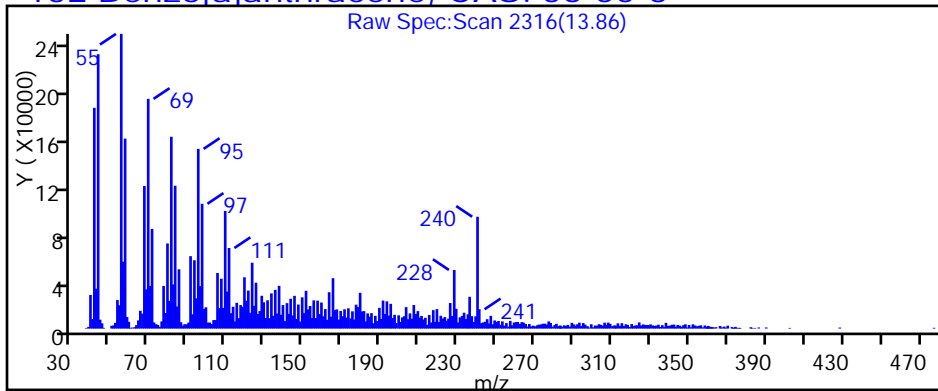
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**152 Benzo[a]anthracene, CAS: 56-55-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

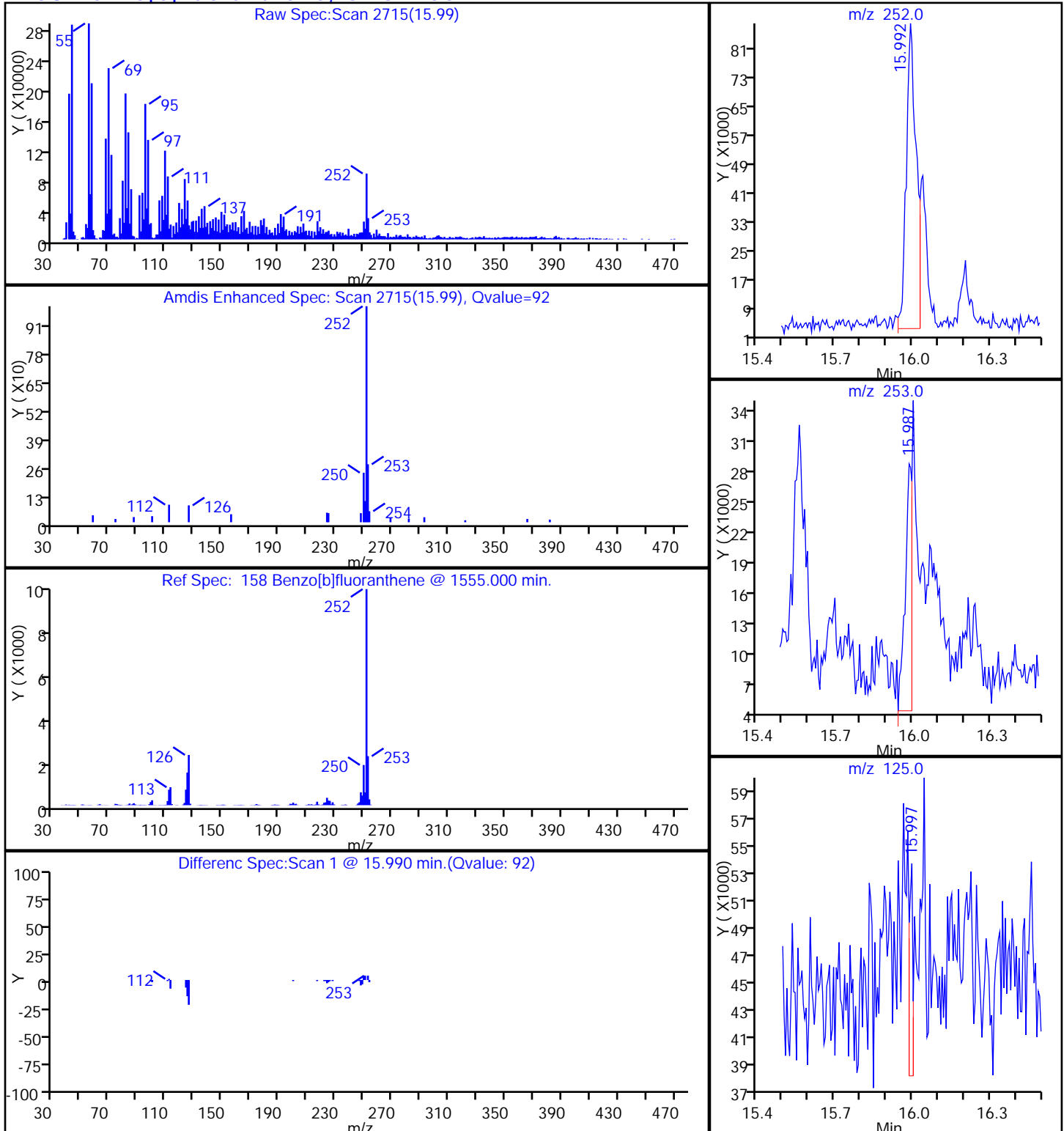
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

158 Benzo[b]fluoranthene, CAS: 205-99-2

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

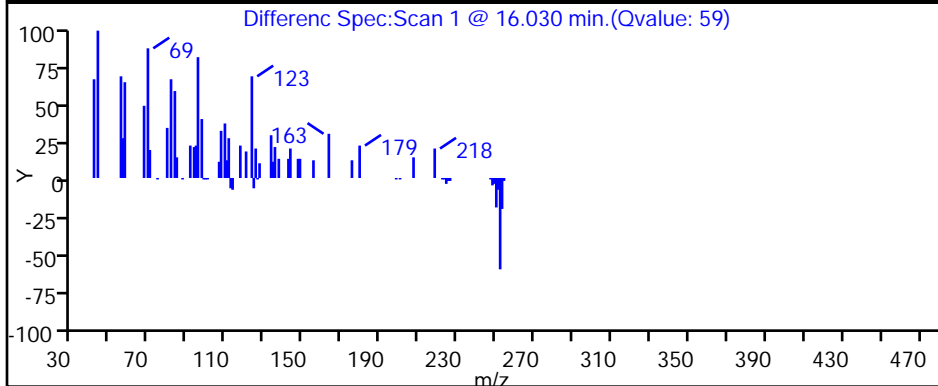
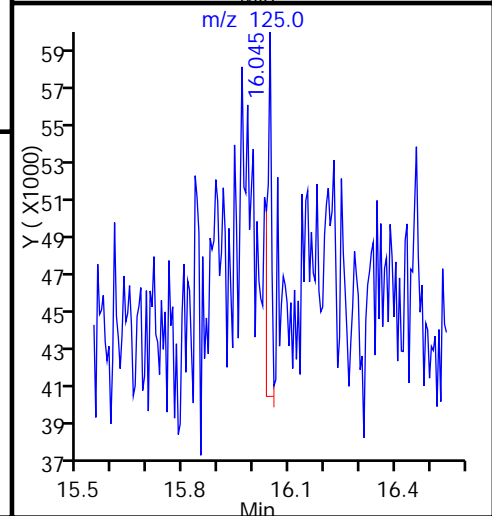
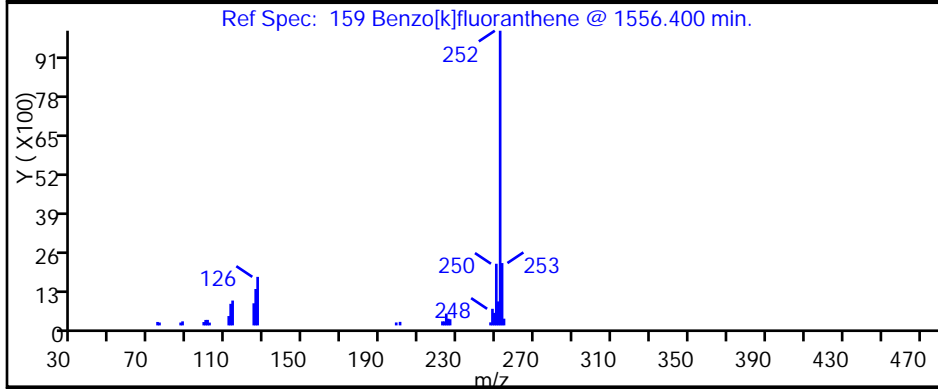
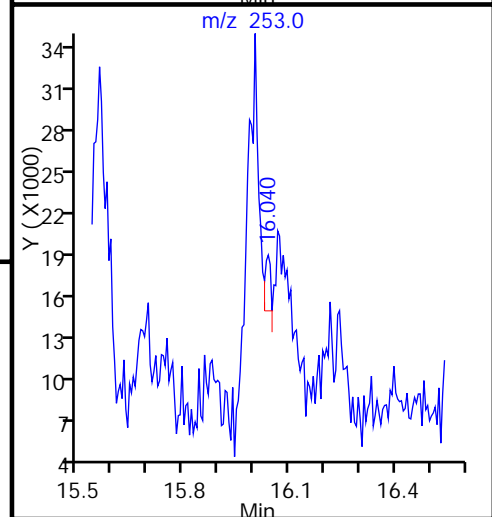
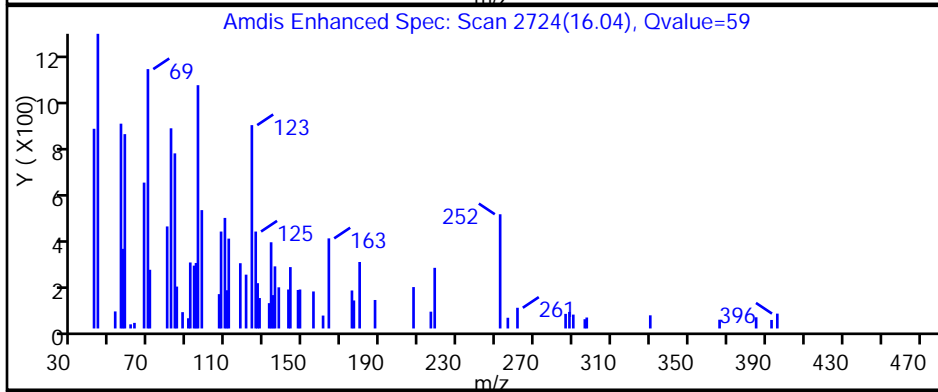
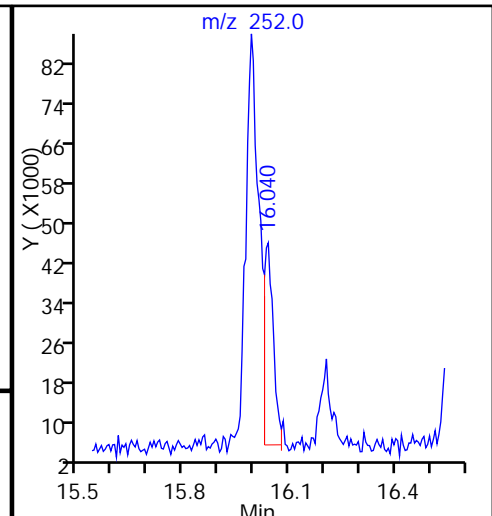
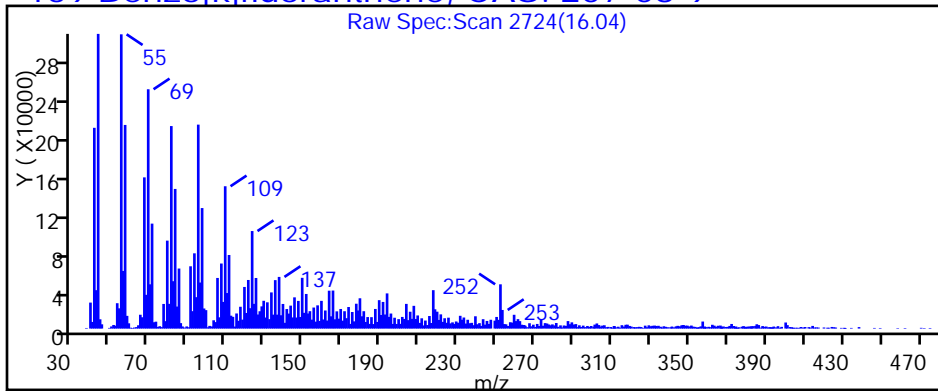
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**159 Benzo[k]fluoranthene, CAS: 207-08-9**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

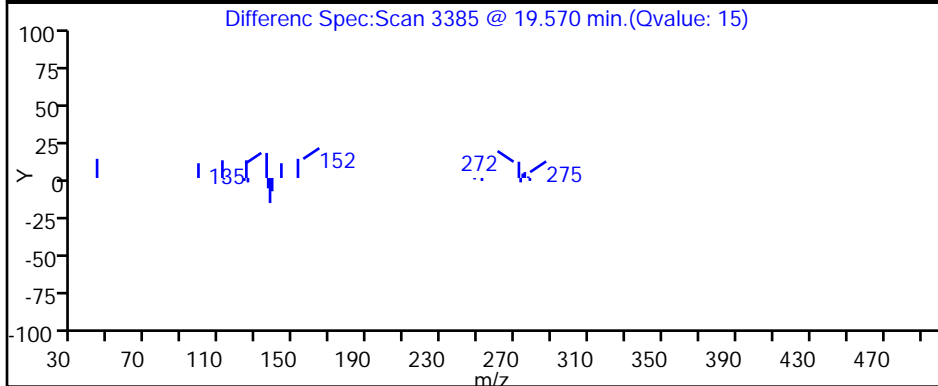
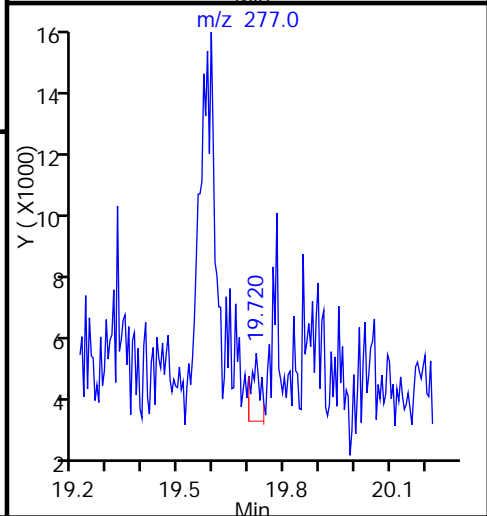
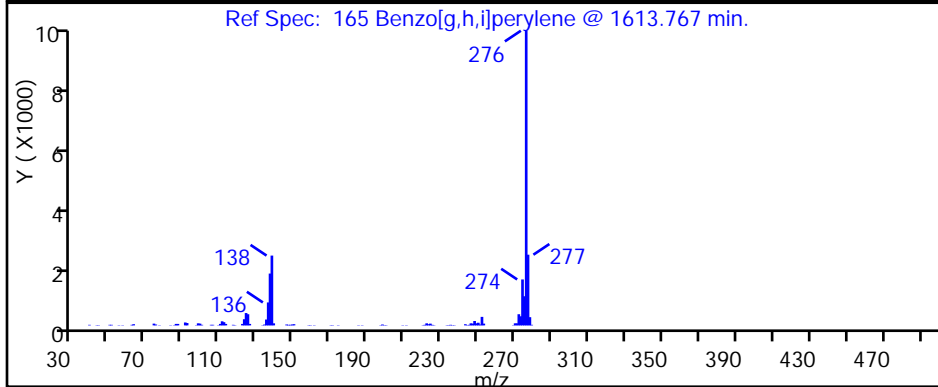
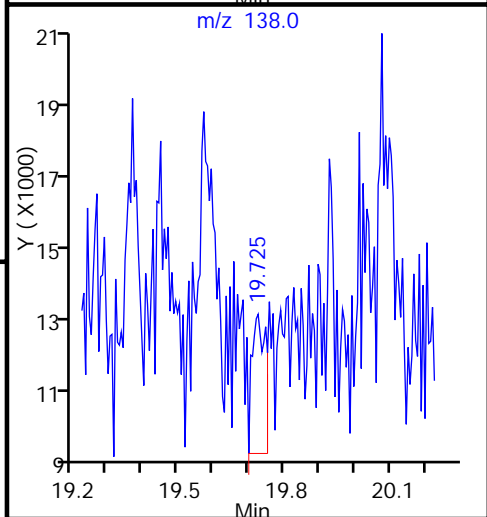
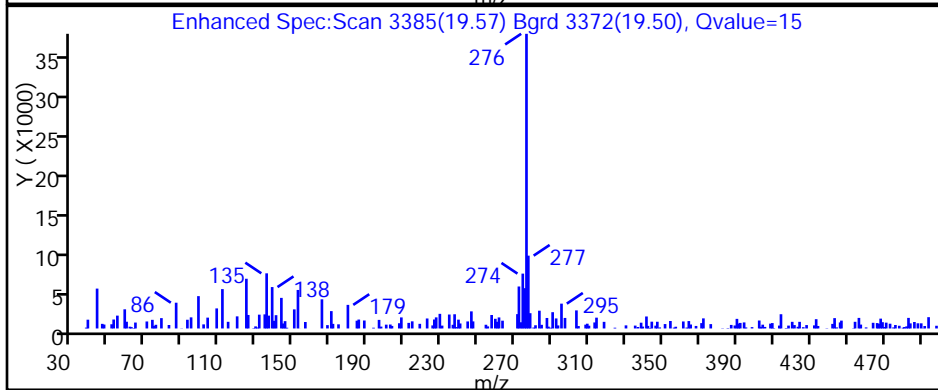
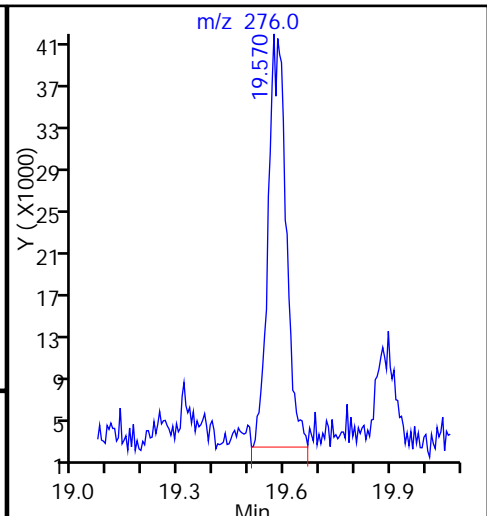
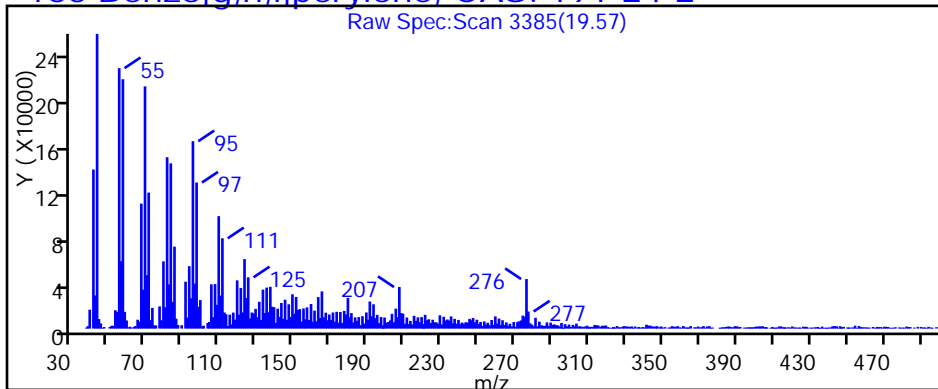
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**165 Benzo[g,h,i]perylene, CAS: 191-24-2**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

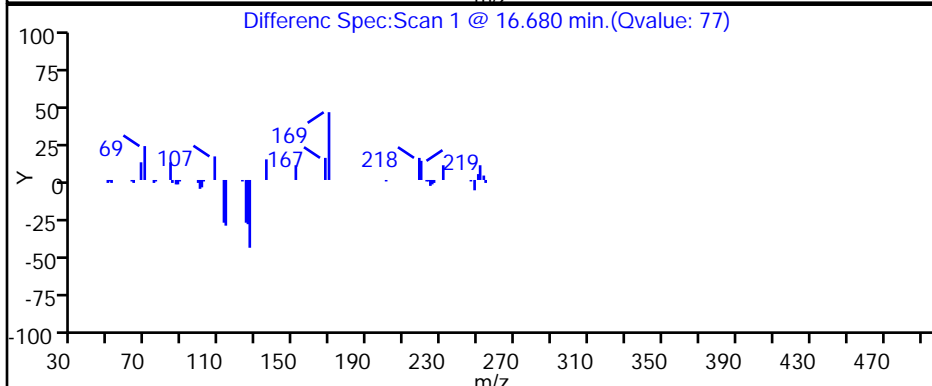
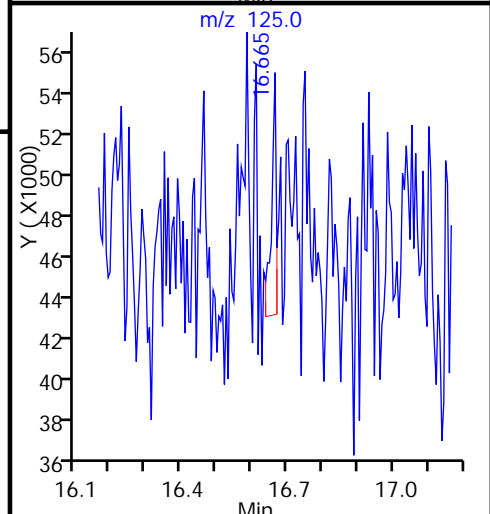
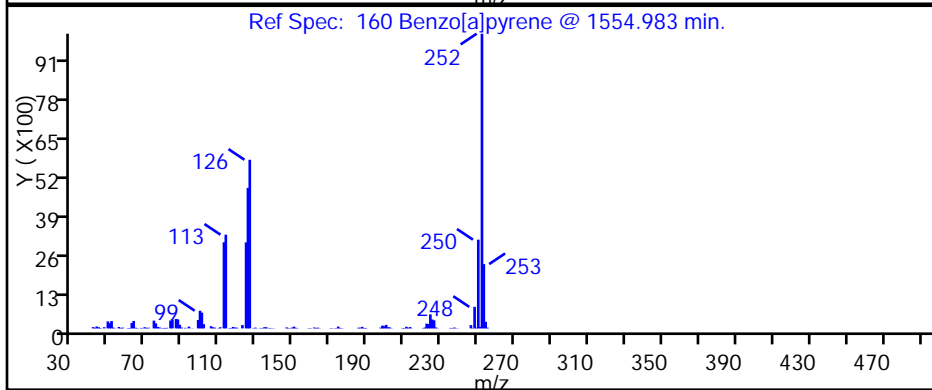
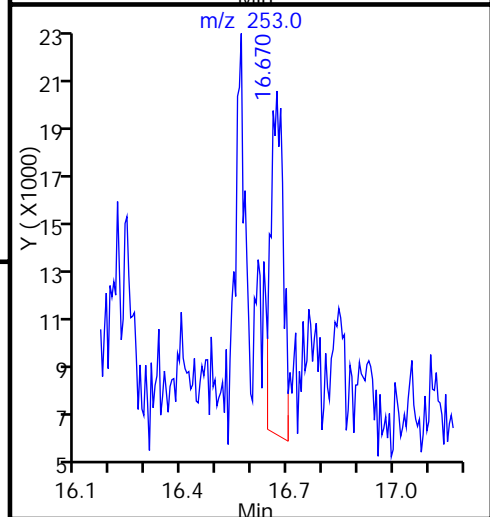
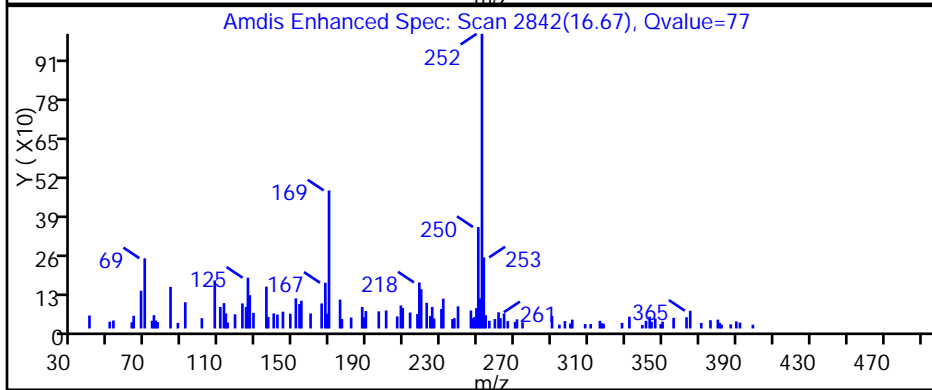
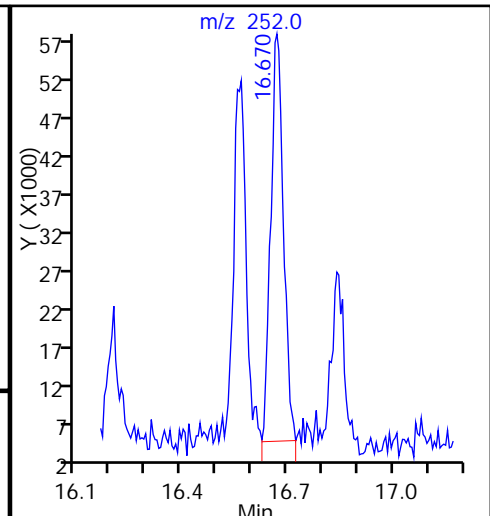
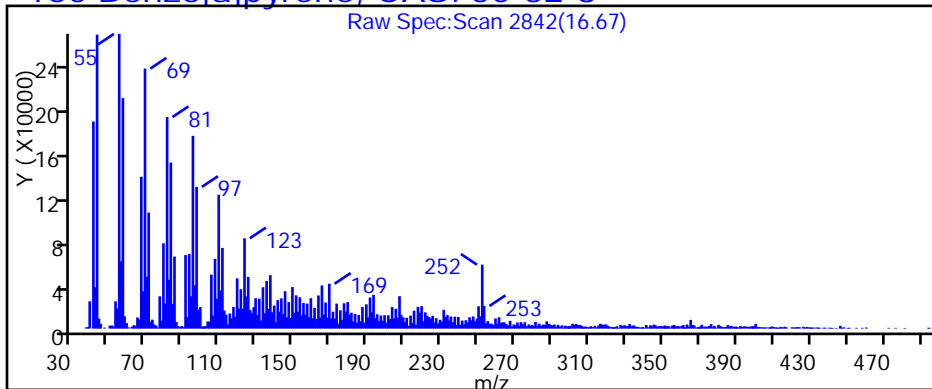
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**160 Benzo[a]pyrene, CAS: 50-32-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

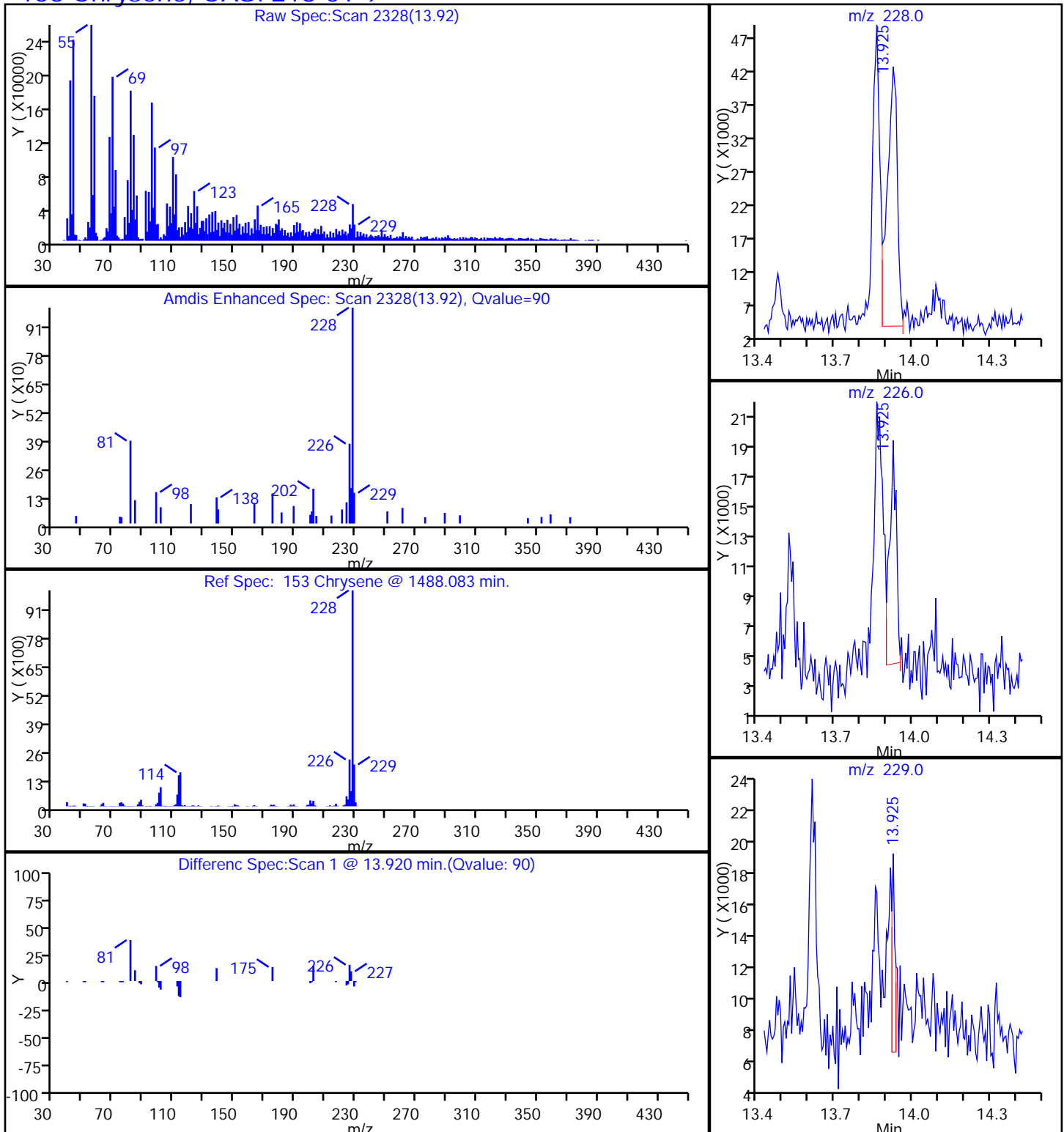
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**153 Chrysene, CAS: 218-01-9**



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

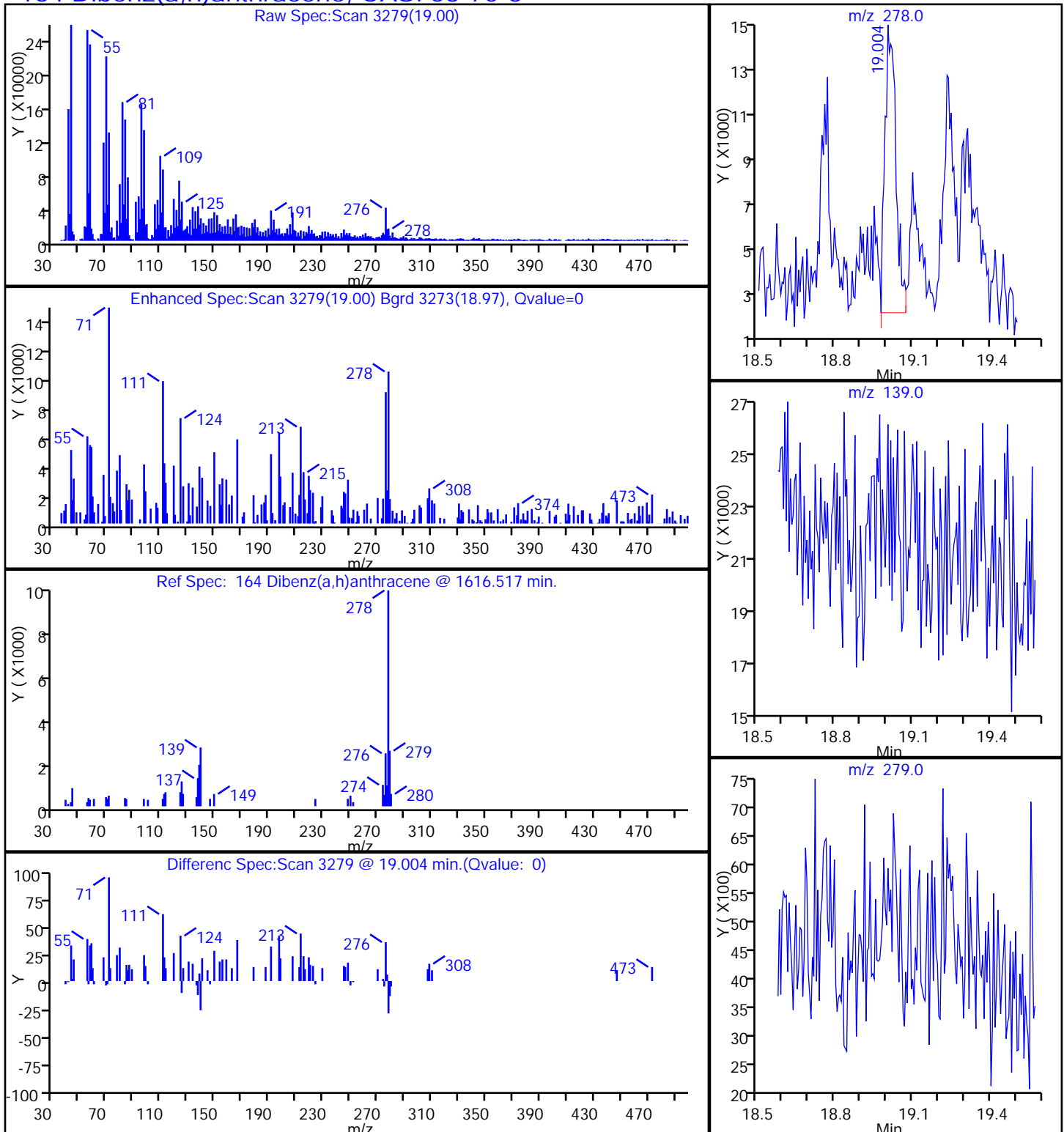
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**164 Dibenz(a,h)anthracene, CAS: 53-70-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

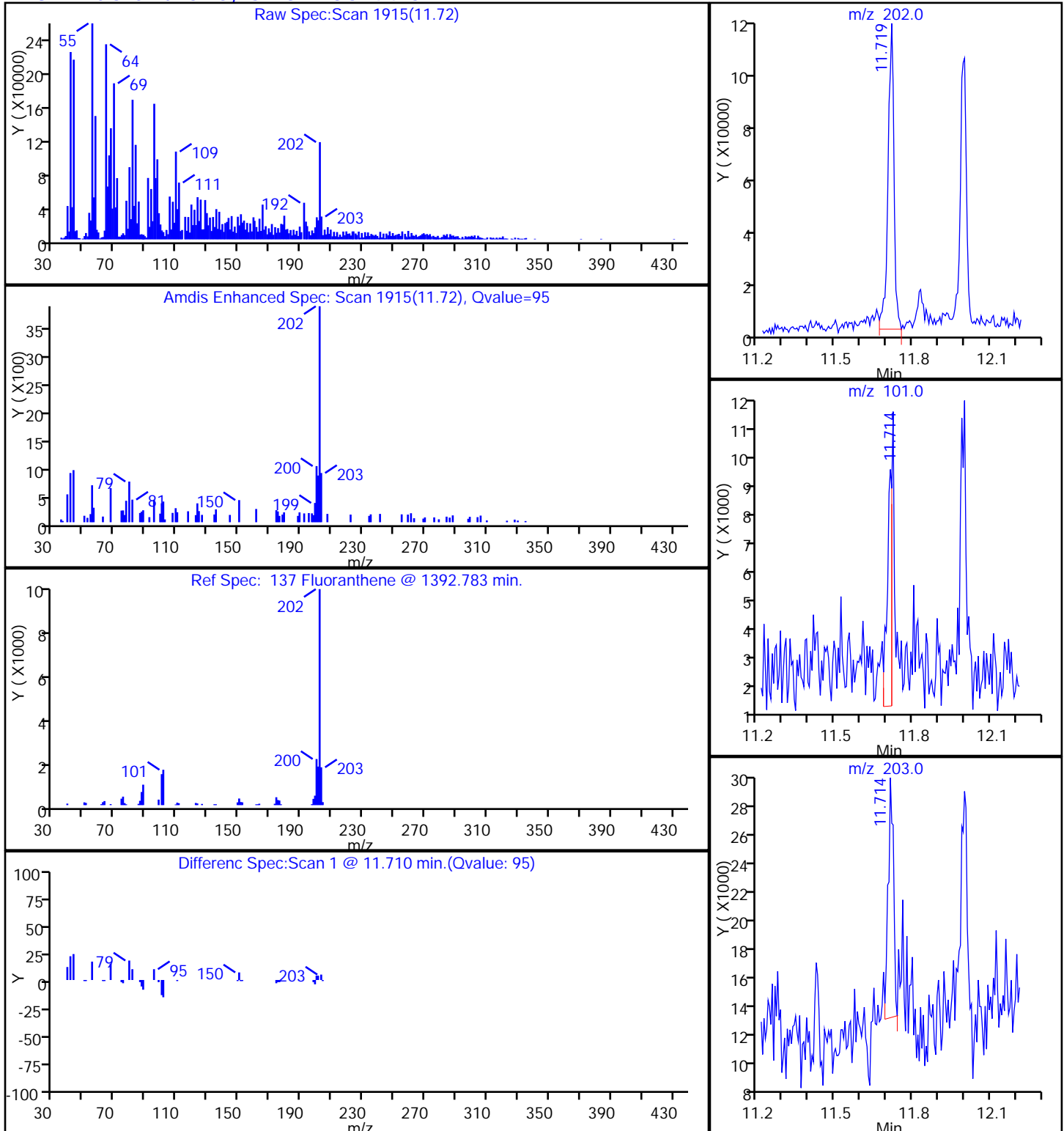
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**137 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

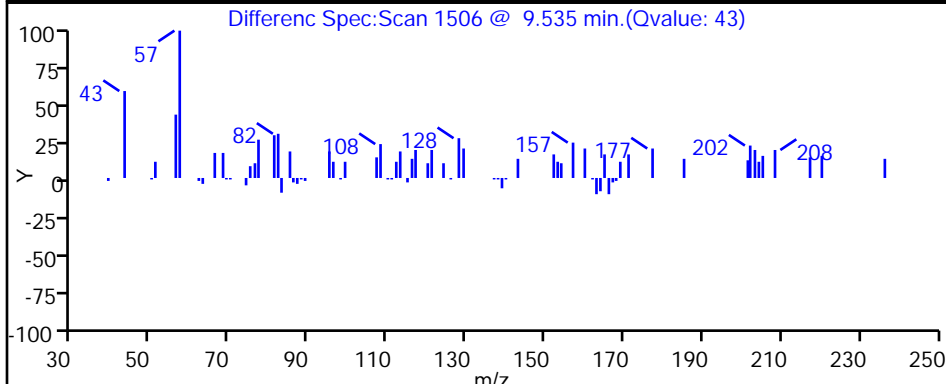
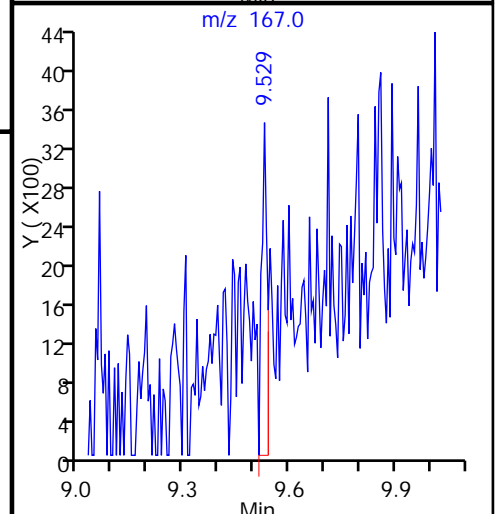
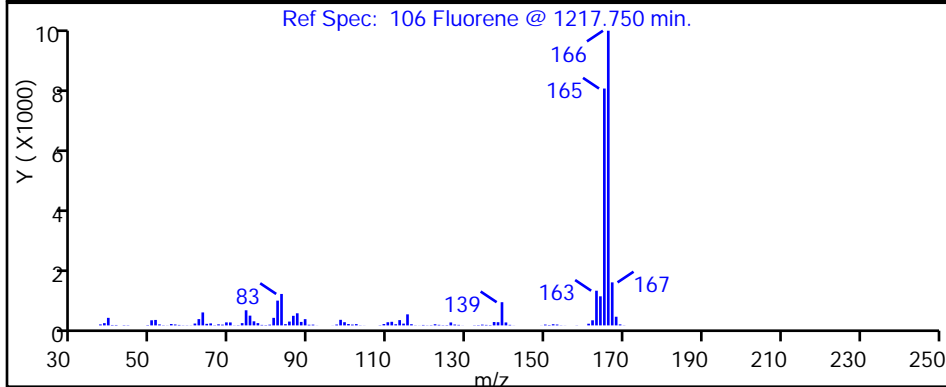
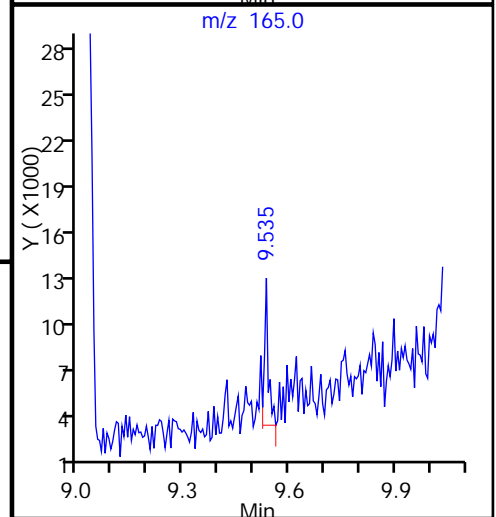
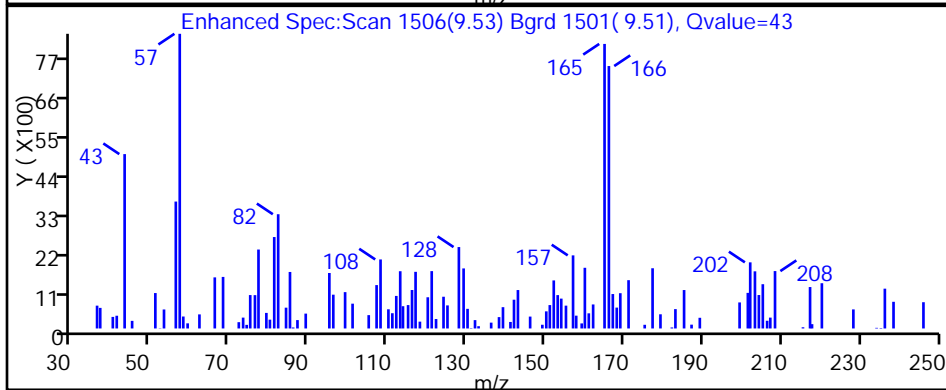
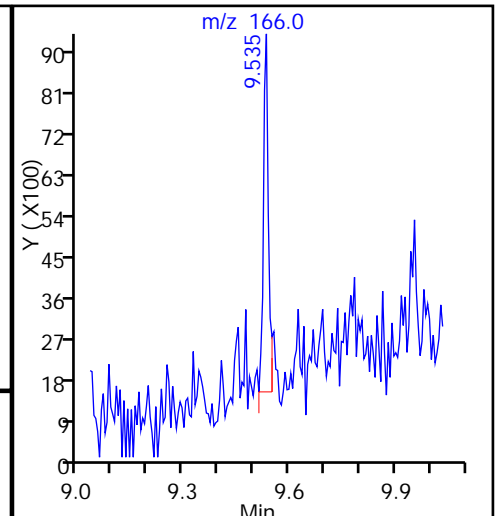
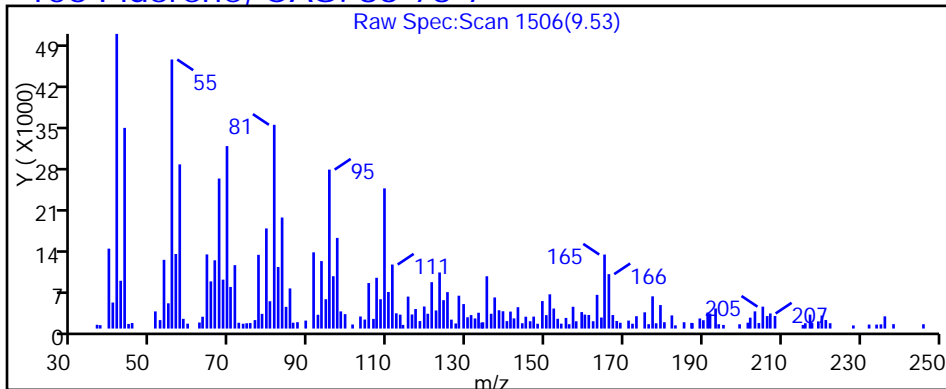
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**106 Fluorene, CAS: 86-73-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

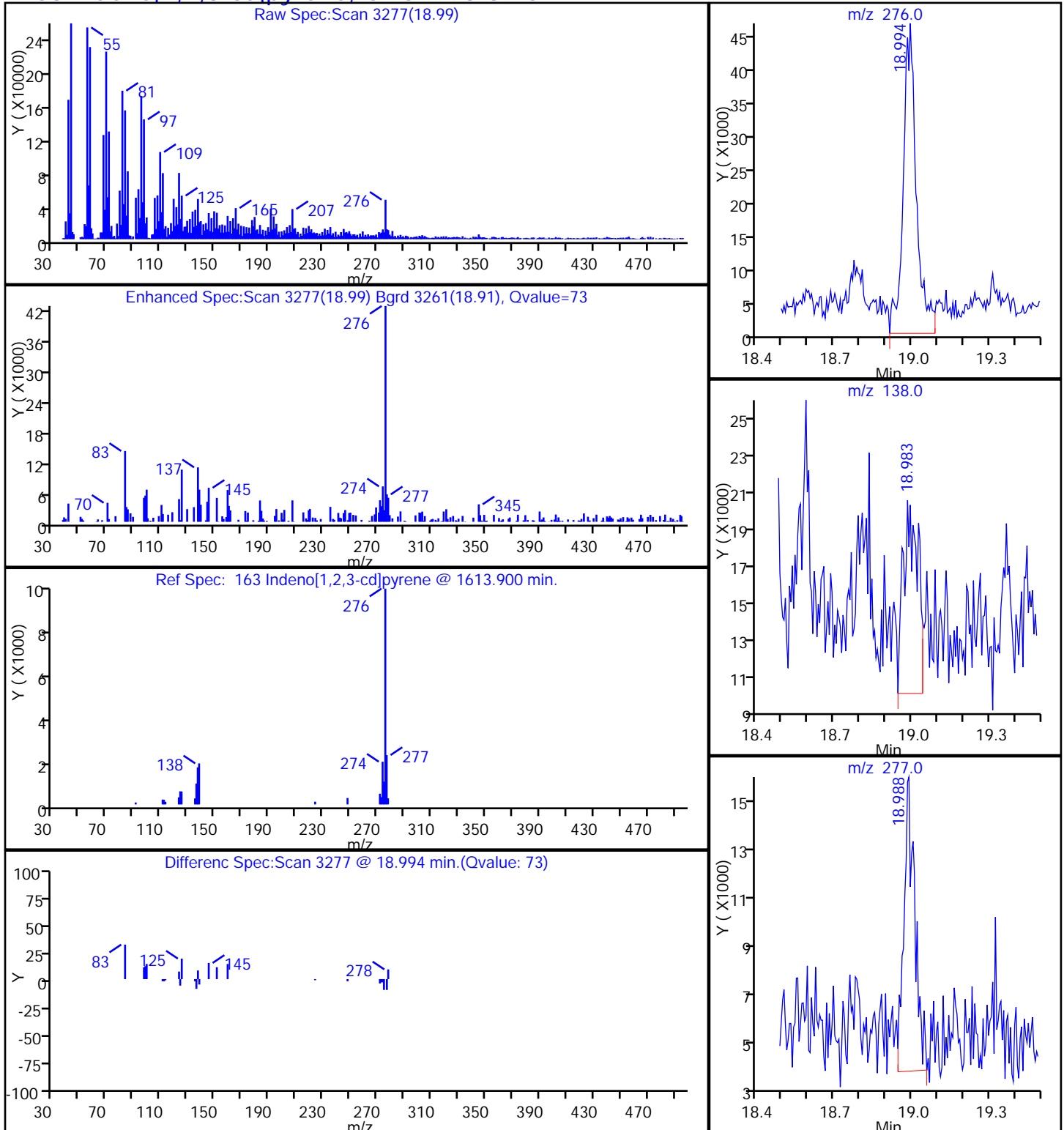
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**163 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

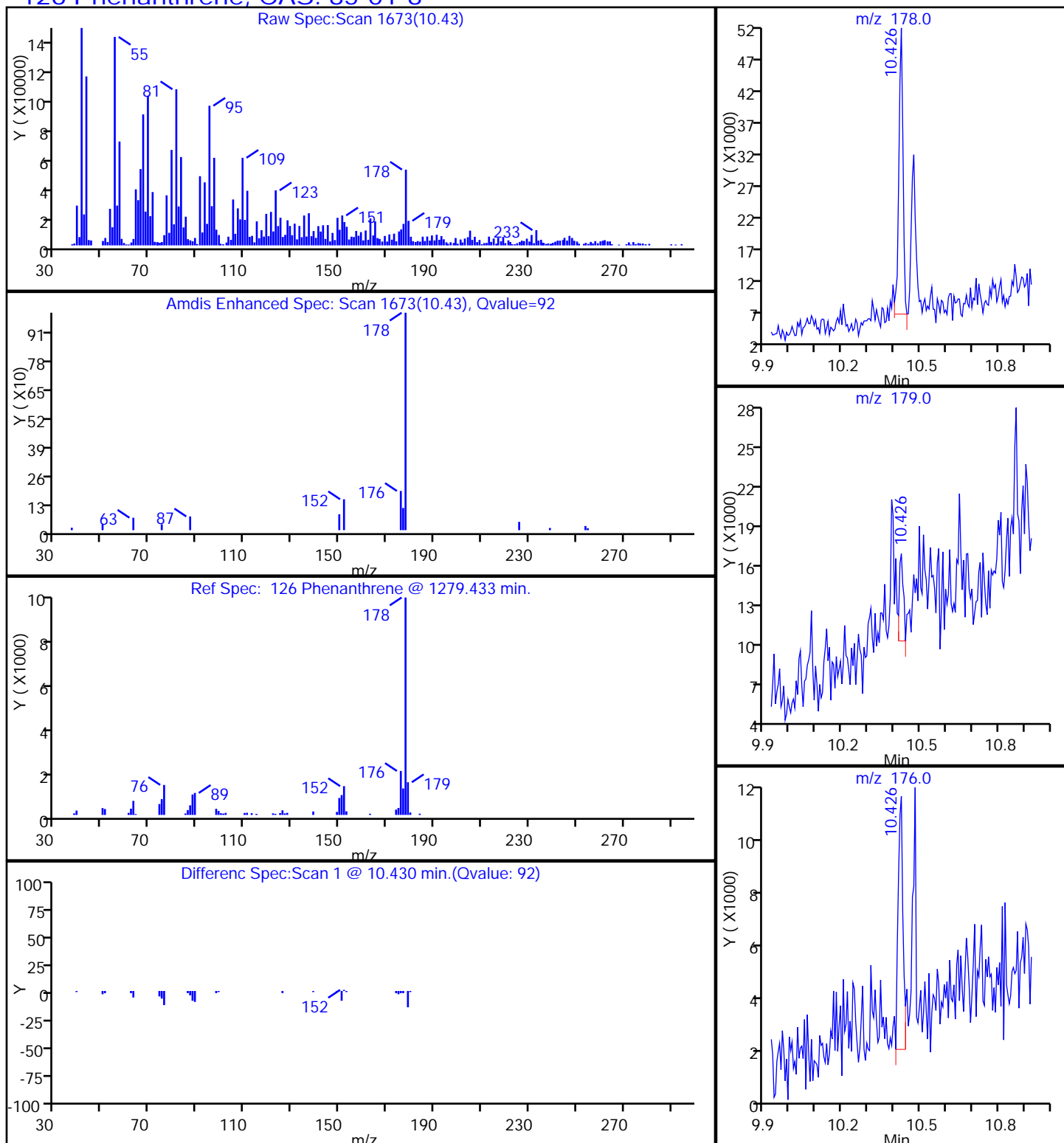
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**126 Phenanthrene, CAS: 85-01-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

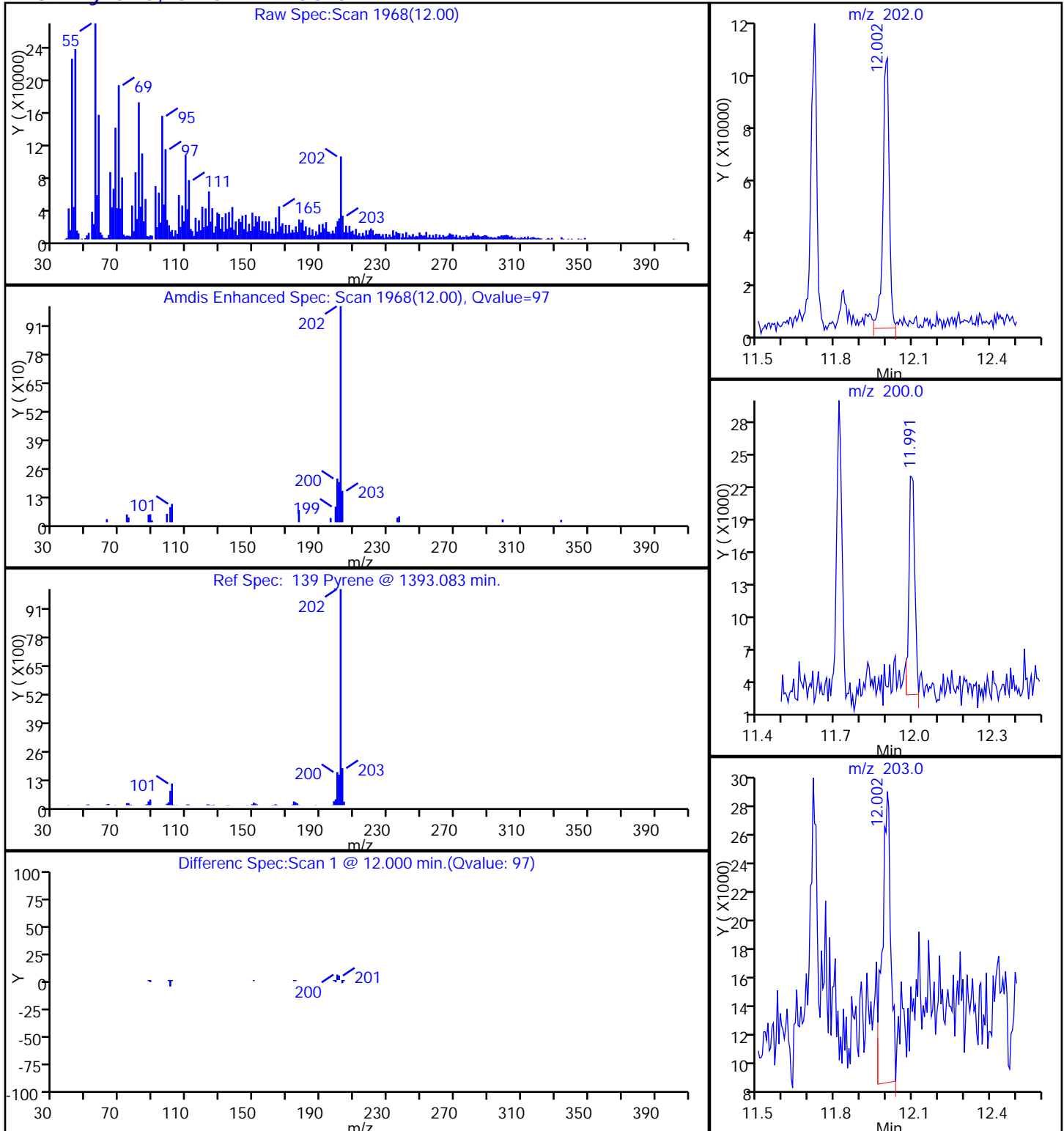
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**139 Pyrene, CAS: 129-00-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

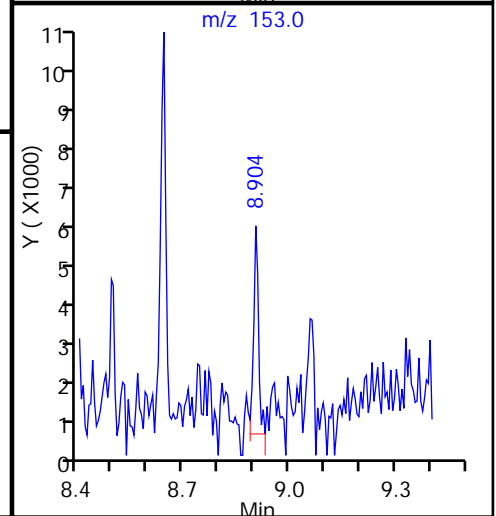
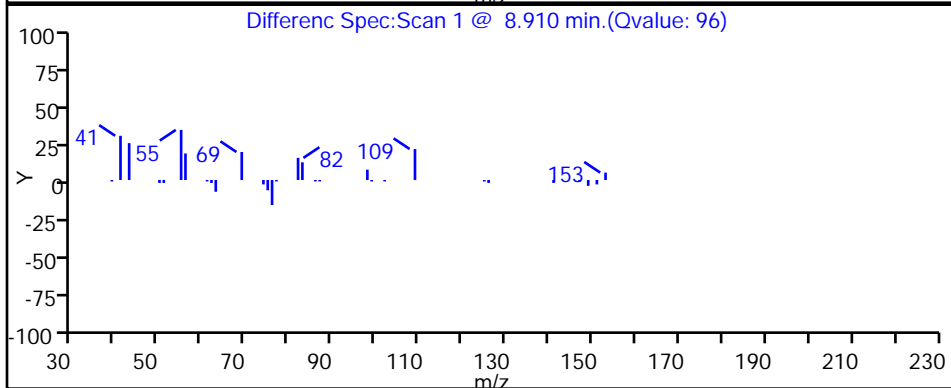
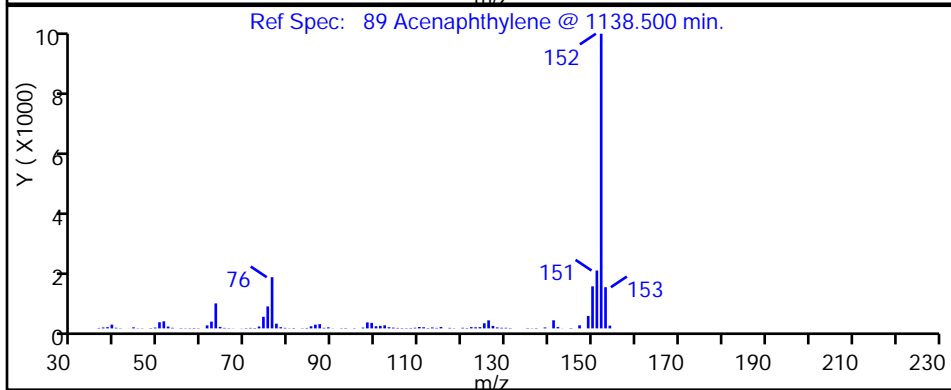
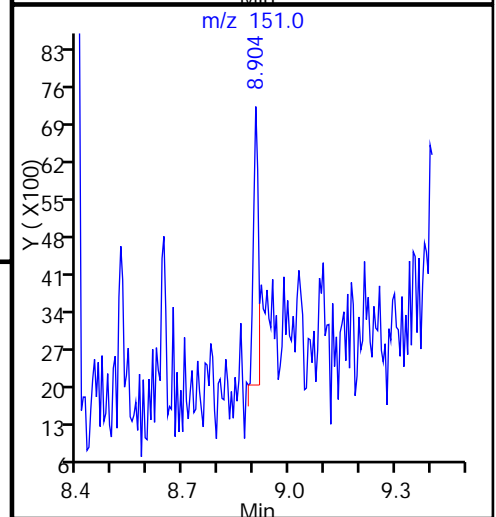
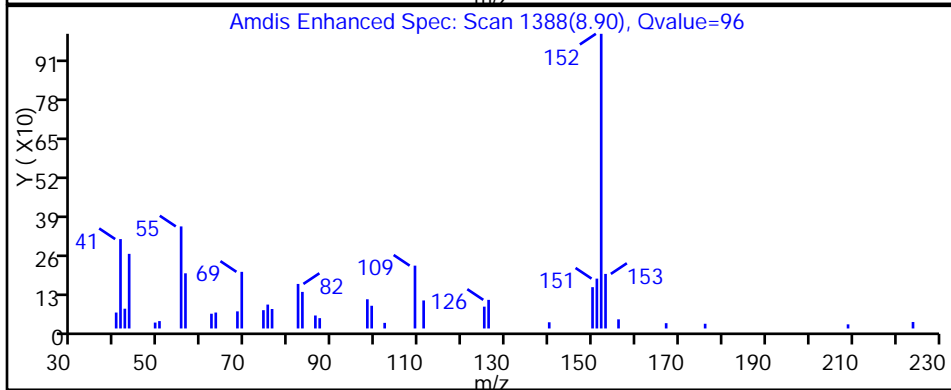
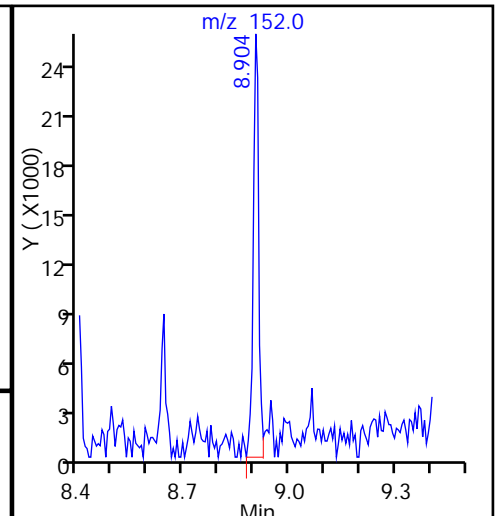
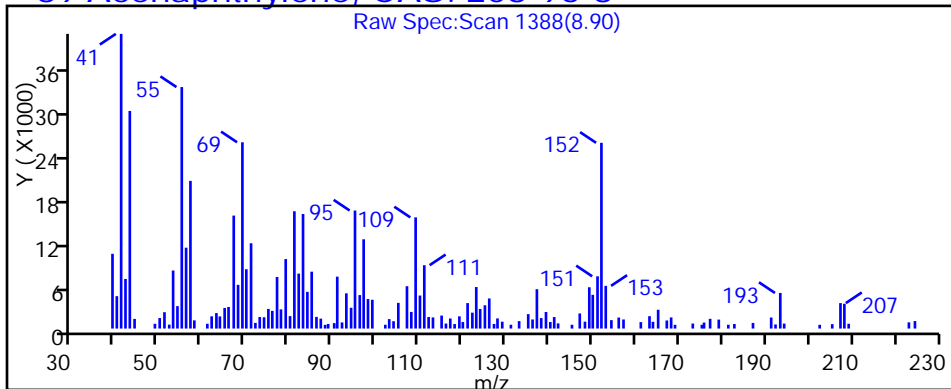
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**89 Acenaphthylene, CAS: 208-96-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

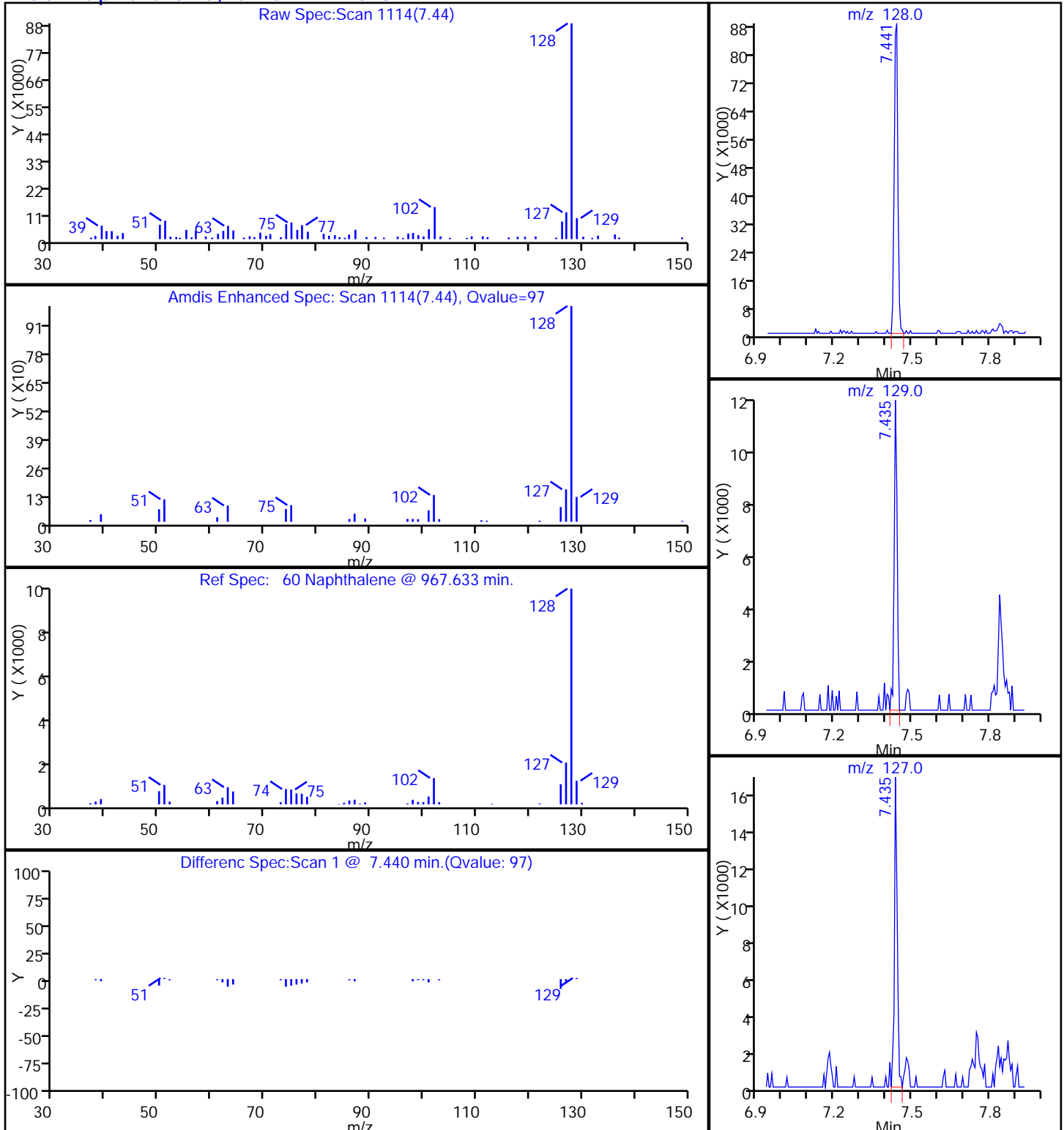
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**60 Naphthalene, CAS: 91-20-3**



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D

Injection Date: 28-Oct-2014 23:54:30

Instrument ID: CH731

Lims ID: 180-37750-A-2-A

Lab Sample ID: 180-37750-2

Client ID: SD-A02

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

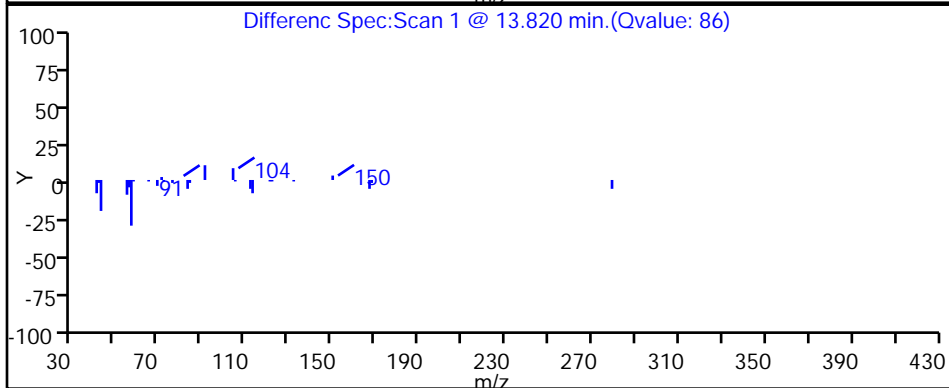
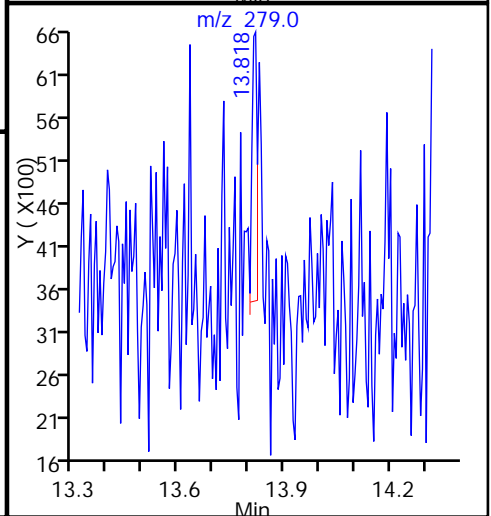
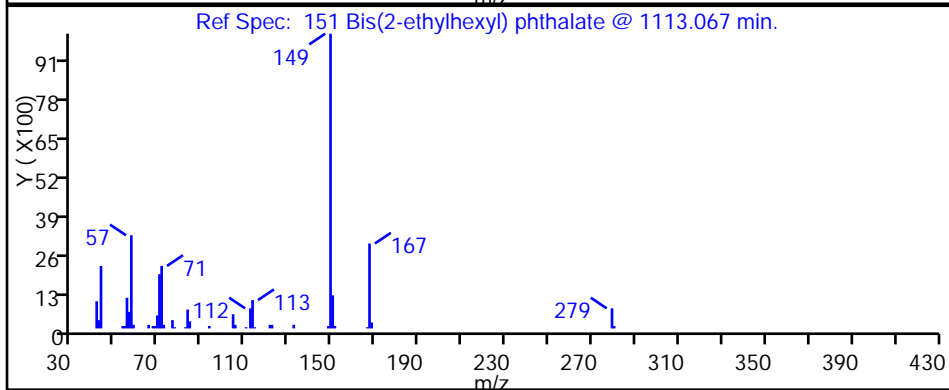
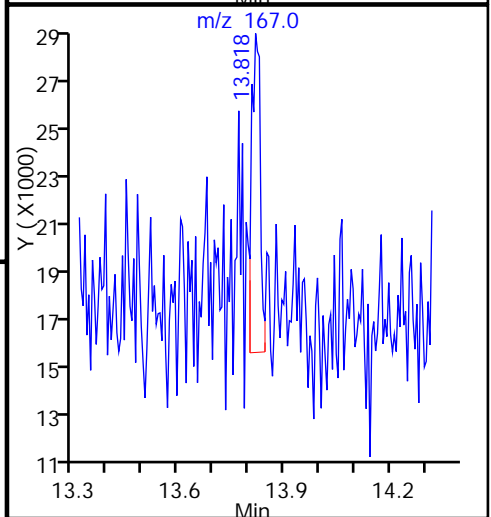
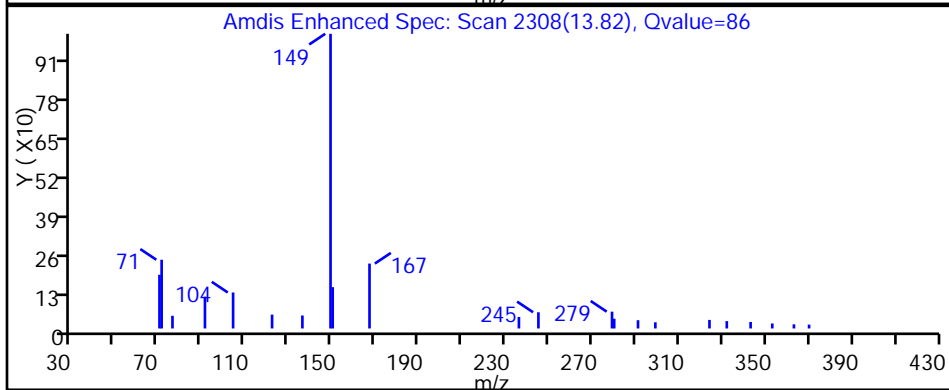
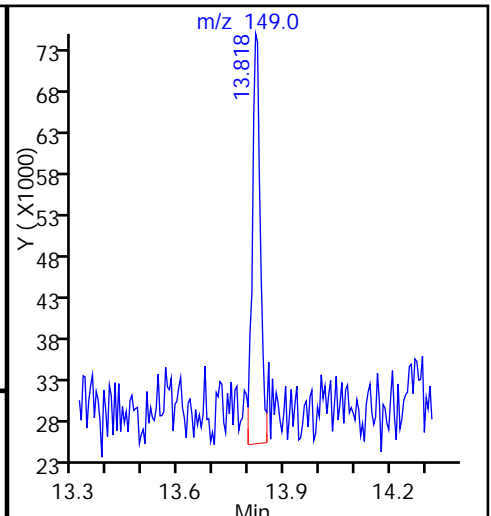
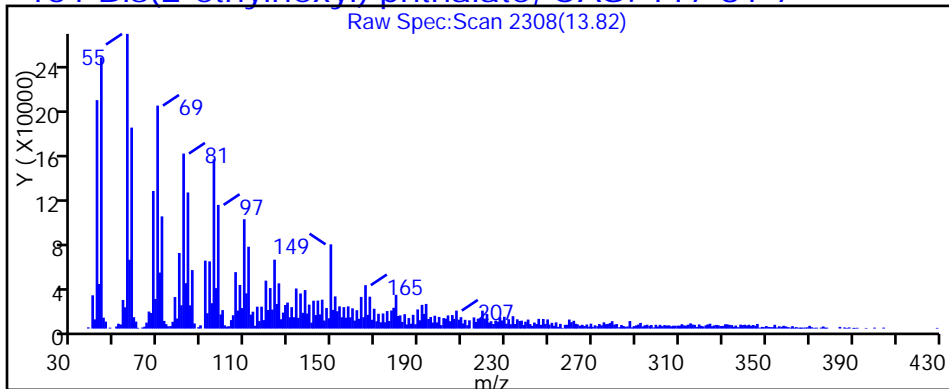
Dil. Factor: 5.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**151 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7**

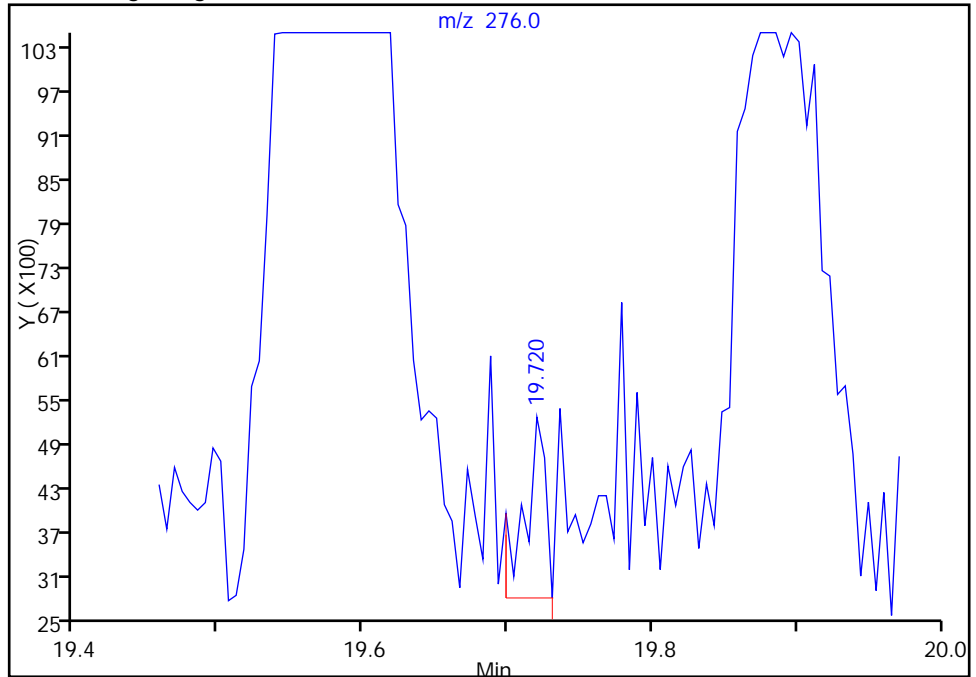
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141028-4041.b\V1028027.D		
Injection Date:	28-Oct-2014 23:54:30	Instrument ID:	CH731
Lims ID:	180-37750-A-2-A	Lab Sample ID:	180-37750-2
Client ID:	SD-A02		
Operator ID:	003200	ALS Bottle#:	26
Injection Vol:	2.0 ul	Dil. Factor:	5.0000
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL
Column:	Rxi-5SilMS (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	27

## 165 Benzo[g,h,i]perylene, CAS: 191-24-2

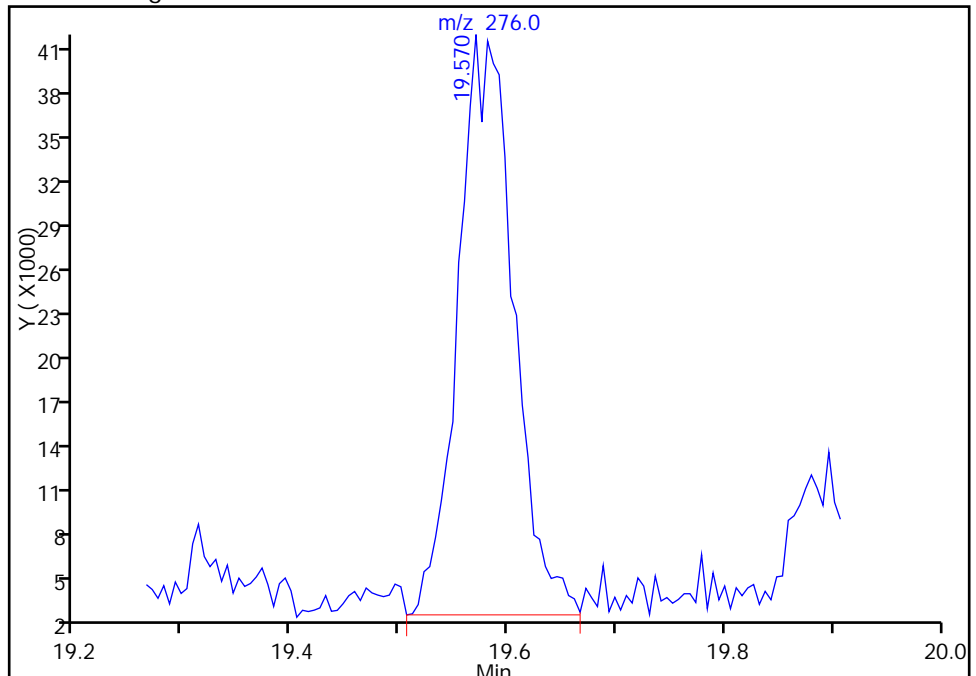
RT: 19.72  
Response: 2518  
Amount: 0.038490

## Processing Integration Results



RT: 19.57  
Response: 139939  
Amount: 2.139113

## Manual Integration Results



Reviewer: piccolinov, 29-Oct-2014 02:21:59  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

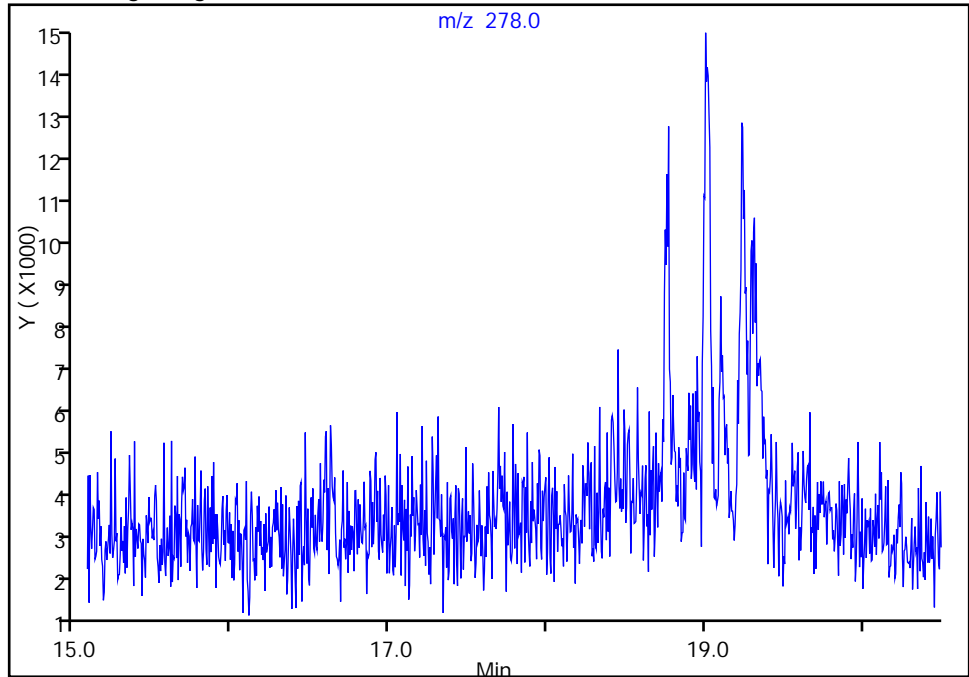
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH731\20141028-4041.b\1028027.D		
Injection Date:	28-Oct-2014 23:54:30	Instrument ID:	CH731
Lims ID:	180-37750-A-2-A	Lab Sample ID:	180-37750-2
Client ID:	SD-A02		
Operator ID:	003200	ALS Bottle#:	26
Injection Vol:	2.0 ul	Dil. Factor:	5.0000
Method:	BNA_CH731	Limit Group:	BNA 8270D ICAL
Column:	Rxi-5SilMS (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	27

## 164 Dibenz(a,h)anthracene, CAS: 53-70-3

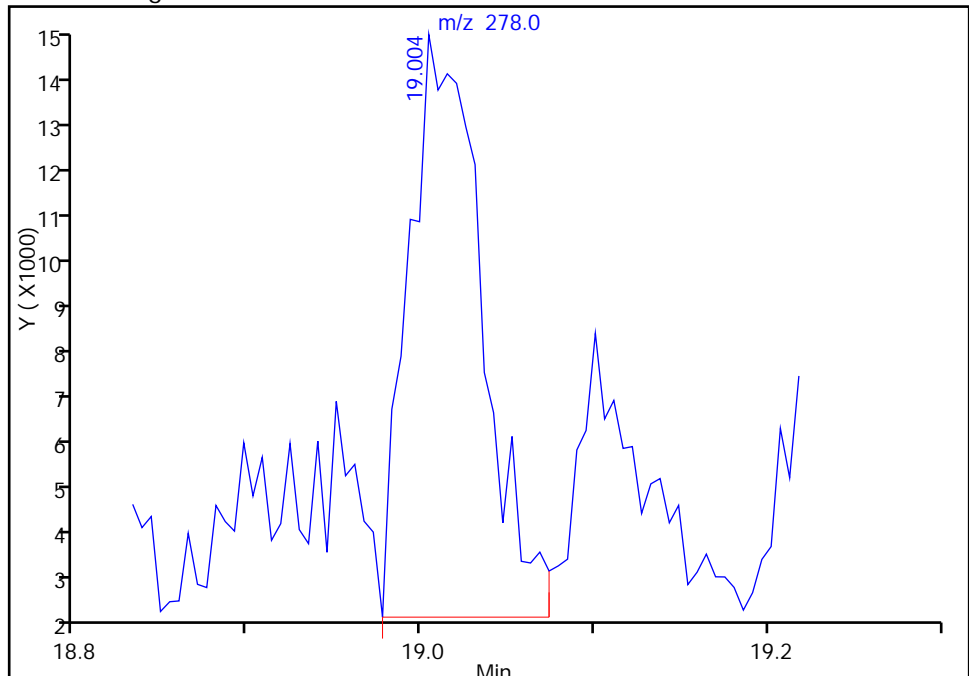
Not Detected  
Expected RT: 19.08

## Processing Integration Results



RT: 19.00  
Response: 34084  
Amount: 0.504724

## Manual Integration Results



Reviewer: piccolinov, 29-Oct-2014 02:21:59  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-A03</u>	Lab Sample ID: <u>180-37750-3</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030024.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 10:20</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/30/2014 19:12</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>20</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>77.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	79	J	300	29
56-55-3	Benzo[a]anthracene	ND		300	37
205-99-2	Benzo[b]fluoranthene	ND		300	46
207-08-9	Benzo[k]fluoranthene	ND		300	60
191-24-2	Benzo[g,h,i]perylene	ND		300	29
50-32-8	Benzo[a]pyrene	ND		300	29
218-01-9	Chrysene	ND		300	35
53-70-3	Dibenz(a,h)anthracene	ND		300	33
206-44-0	Fluoranthene	390		300	31
86-73-7	Fluorene	ND		300	39
193-39-5	Indeno[1,2,3-cd]pyrene	ND		300	30
85-01-8	Phenanthrene	180	J	300	47
129-00-0	Pyrene	380		300	30
83-32-9	Acenaphthene	ND		300	28
208-96-8	Acenaphthylene	110	J	300	34
91-20-3	Naphthalene	310		300	25
117-81-7	Bis(2-ethylhexyl) phthalate	ND		2900	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	76		27-110
321-60-8	2-Fluorobiphenyl	65		28-108
1718-51-0	Terphenyl-d14 (Surr)	55		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D  
 Lims ID: 180-37750-A-3-A Lab Sample ID: 180-37750-3  
 Client ID: SD-A03  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 19:12:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Injection Vol: 2.0 ul Dil. Factor: 20.0000  
 Sample Info: 180-0004095-024  
 Misc. Info.: 180-37750-A-3-A  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:30 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 31-Oct-2014 02:40:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.216	6.216	0.000	90	192660	8.00	
* 2 Naphthalene-d8	136	7.418	7.418	0.000	99	685596	8.00	
* 3 Acenaphthene-d10	164	9.041	9.036	0.005	91	329343	8.00	
* 4 Phenanthrene-d10	188	10.409	10.398	0.011	96	414893	8.00	
* 5 Chrysene-d12	240	13.880	13.859	0.021	96	366088	8.00	
* 6 Perylene-d12	264	16.791	16.759	0.032	99	340865	8.00	
\$ 9 Nitrobenzene-d5	82	6.739	6.739	0.000	92	47456	1.51	
\$ 10 2-Fluorobiphenyl	172	8.400	8.400	0.000	98	73775	1.30	
\$ 12 Terphenyl-d14	244	12.150	12.134	0.016	95	42979	1.11	
60 Naphthalene	128	7.439	7.439	0.000	95	37710	0.4174	
89 Acenaphthylene	152	8.913	8.908	0.005	65	10823	0.1517	
91 Acenaphthene	153		9.063				ND	
106 Fluorene	166		9.533				ND	
126 Phenanthrene	178	10.425	10.419	0.006	11	14559	0.2413	
128 Anthracene	178	10.478	10.467	0.011	19	6504	0.1070	
137 Fluoranthene	202	11.712	11.685	0.027	92	32530	0.5253	
139 Pyrene	202	12.000	11.984	0.016	95	30287	0.5170	
151 Bis(2-ethylhexyl) phthalat	149		13.800				ND	
152 Benzo[a]anthracene	228		13.838				ND	
153 Chrysene	228		13.907				ND	
158 Benzo[b]fluoranthene	252		15.963				ND	
159 Benzo[k]fluoranthene	252		16.017				ND	
160 Benzo[a]pyrene	252		16.642				ND	
163 Indeno[1,2,3-cd]pyrene	276		18.949				ND	
164 Dibenzo(a,h)anthracene	278		18.981				ND	
165 Benzo[g,h,i]perylene	276		19.537				ND	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Worklist Smp#: 24

Client ID: SD-A03

Injection Vol: 2.0 ul

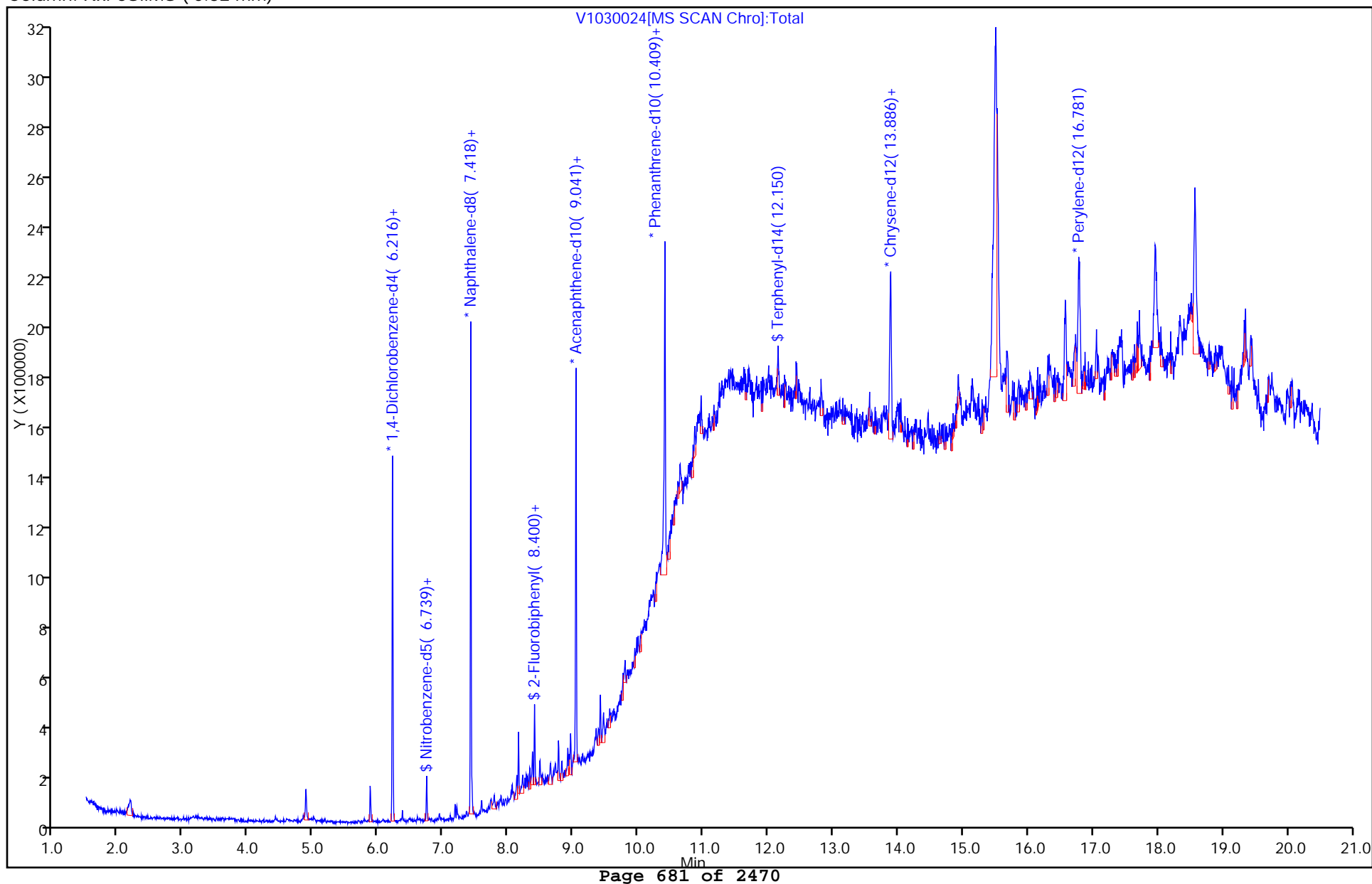
Dil. Factor: 20.0000

ALS Bottle#: 23

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

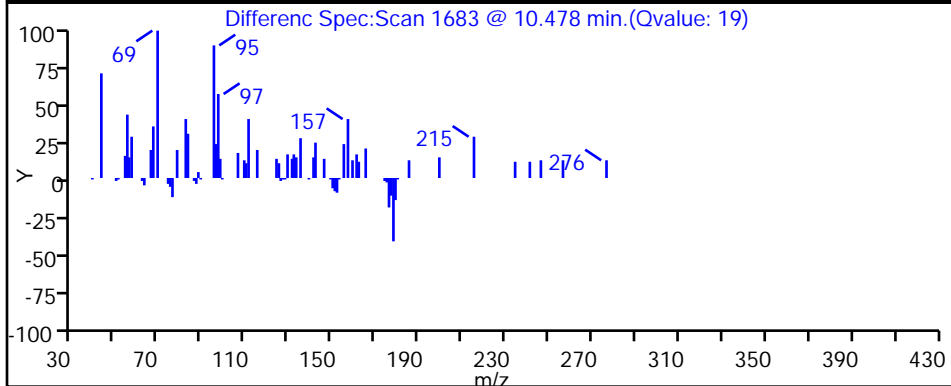
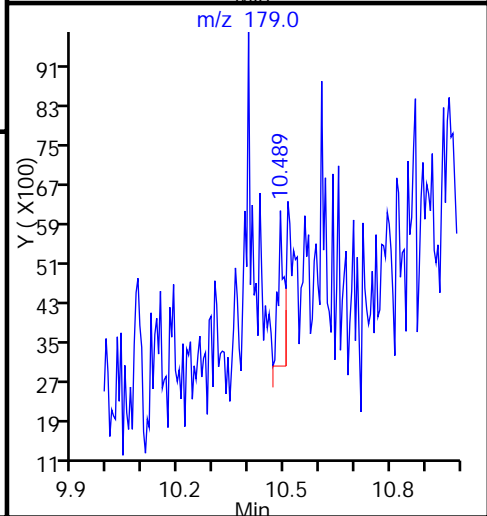
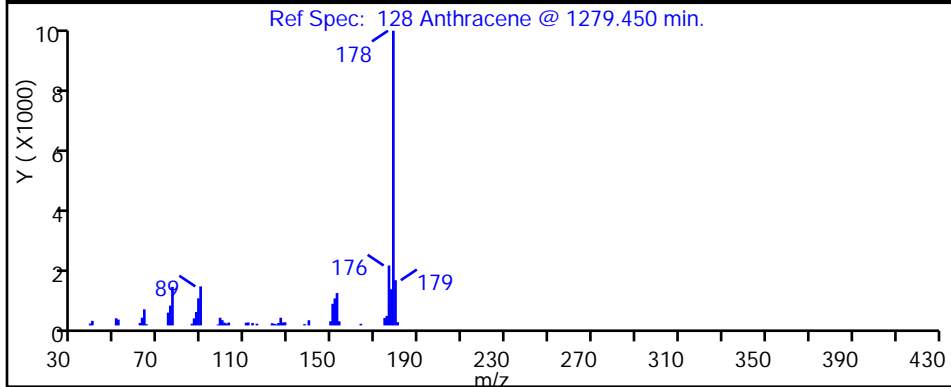
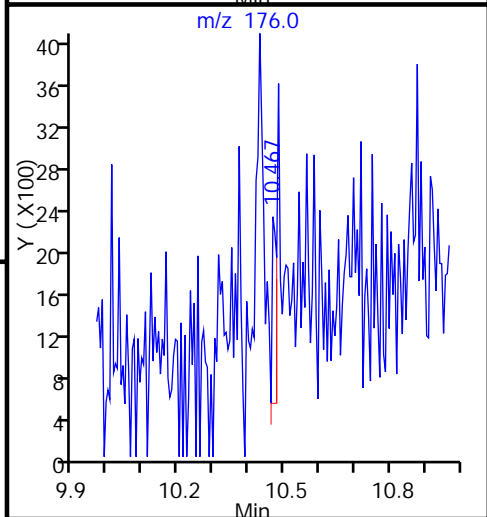
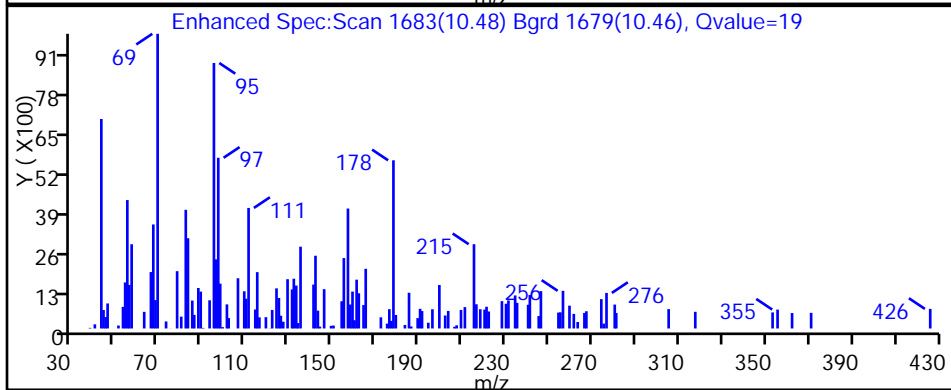
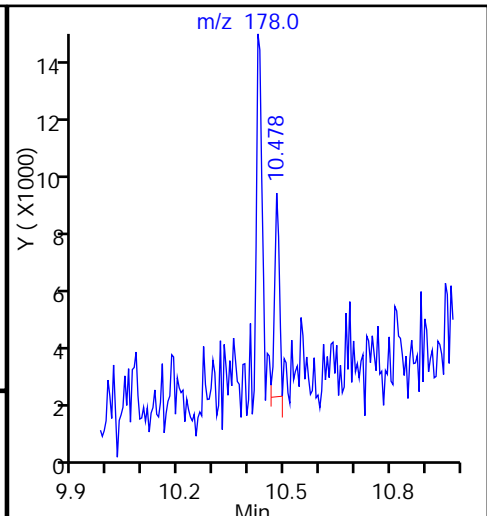
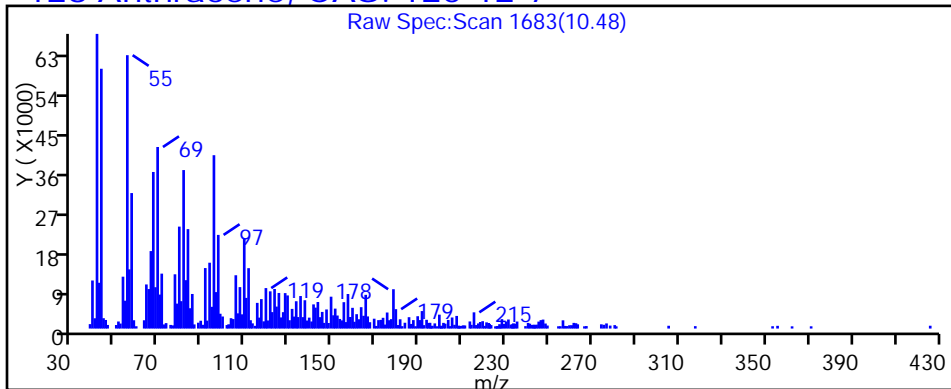
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**128 Anthracene, CAS: 120-12-7**



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

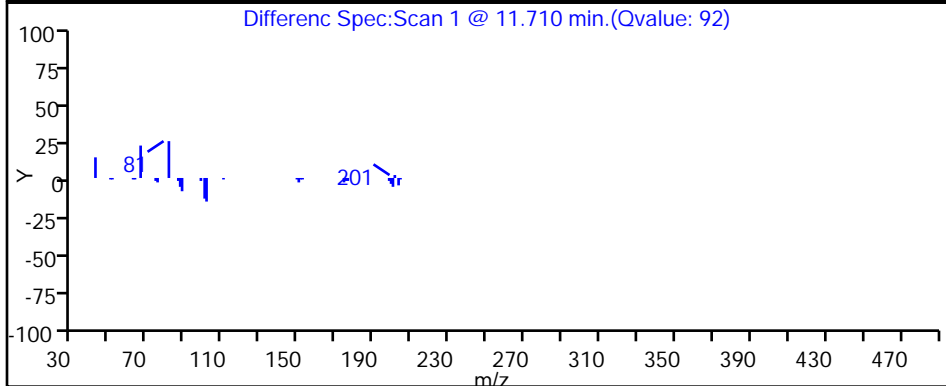
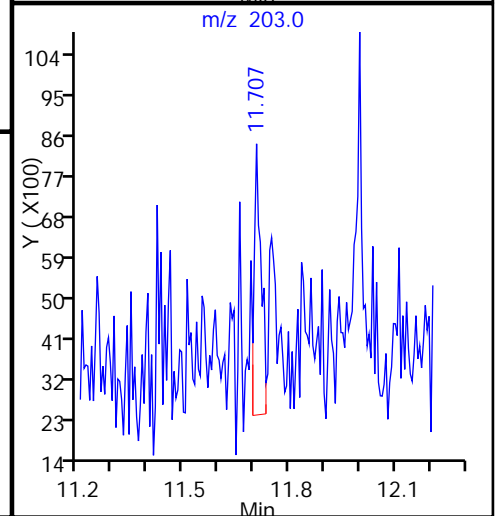
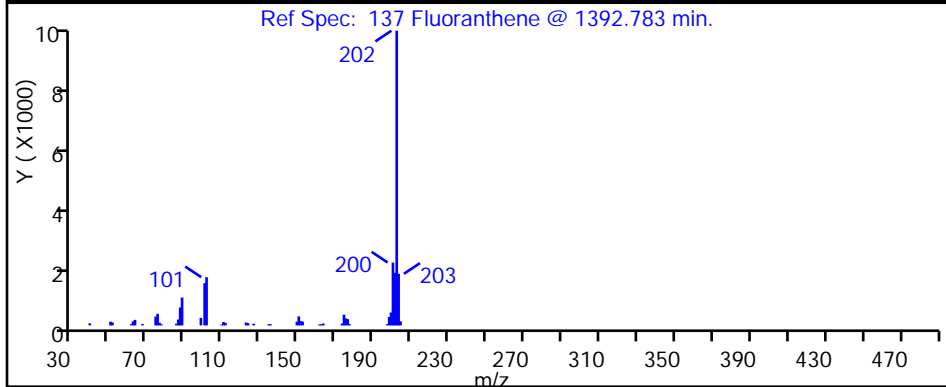
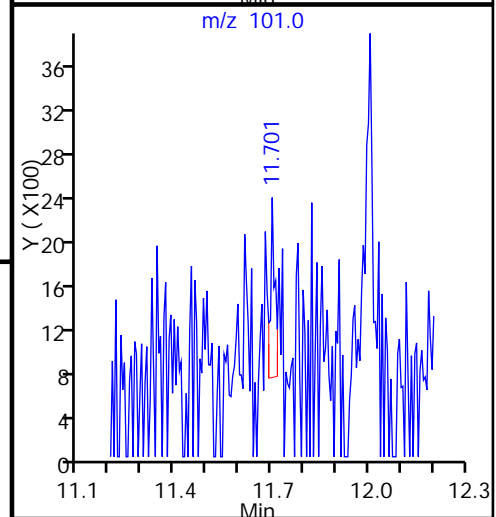
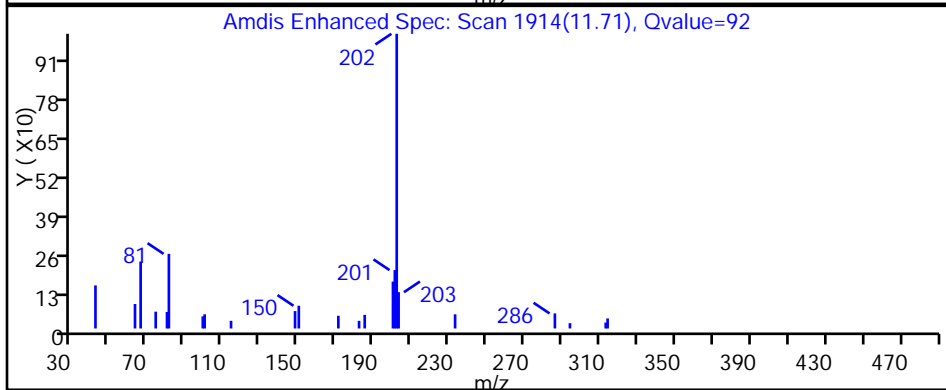
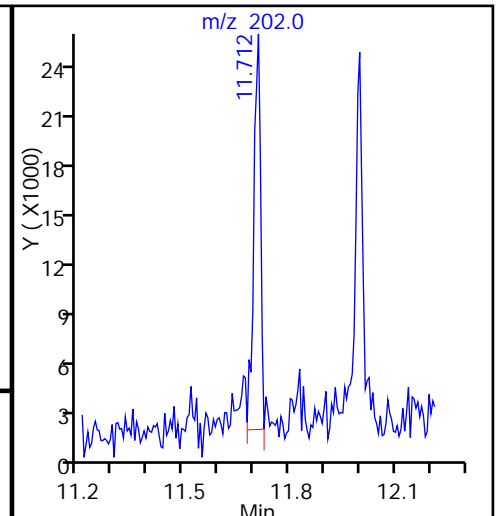
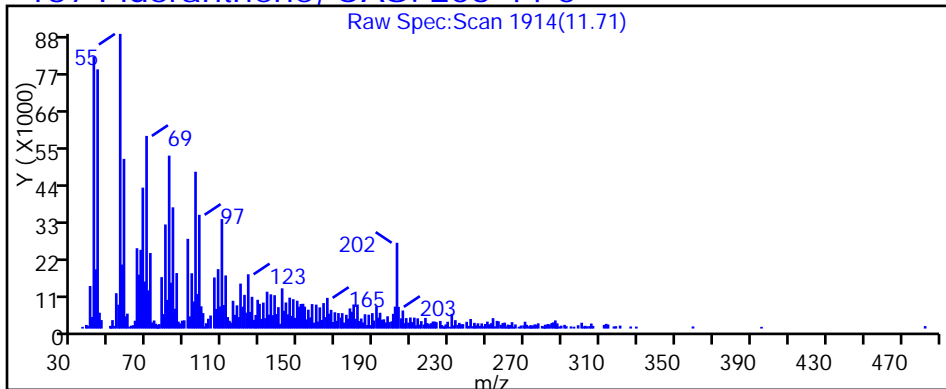
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**137 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

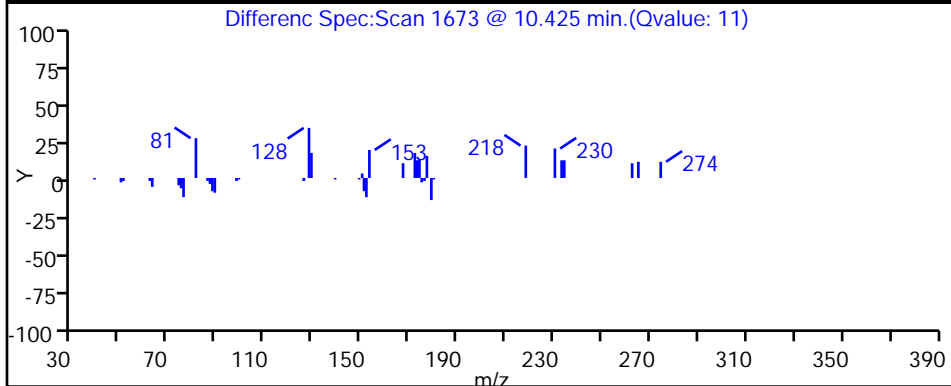
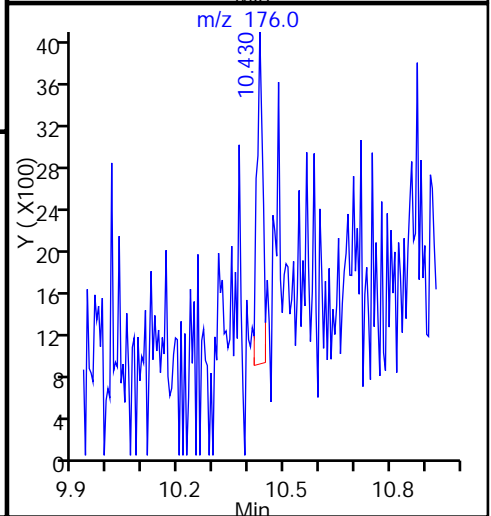
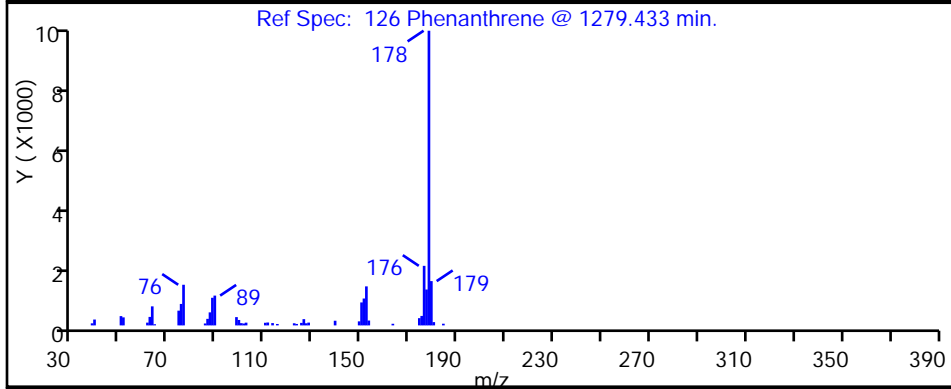
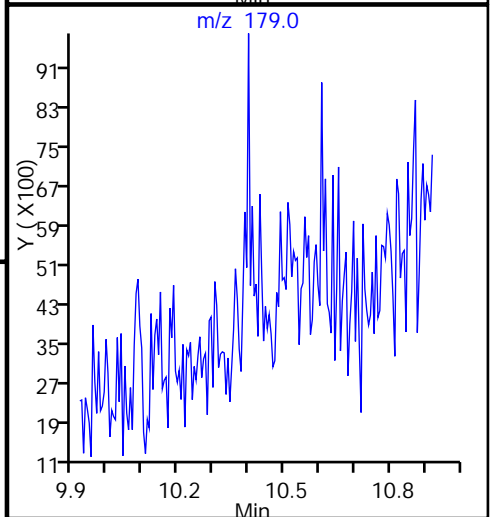
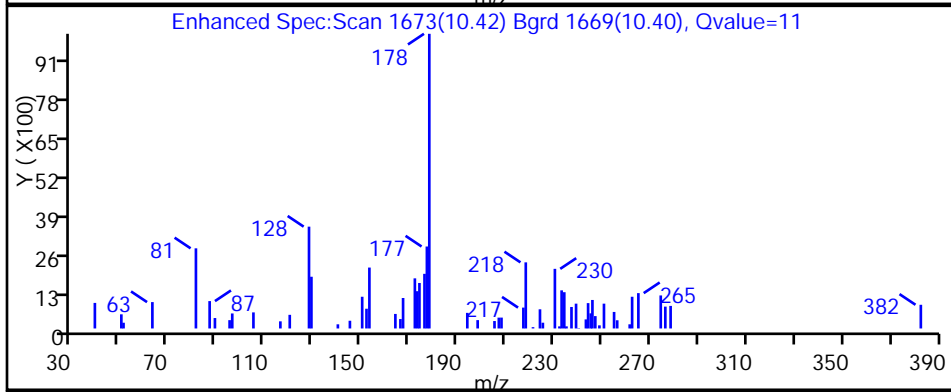
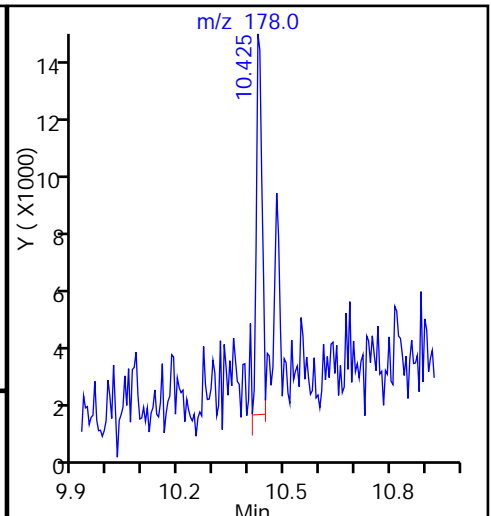
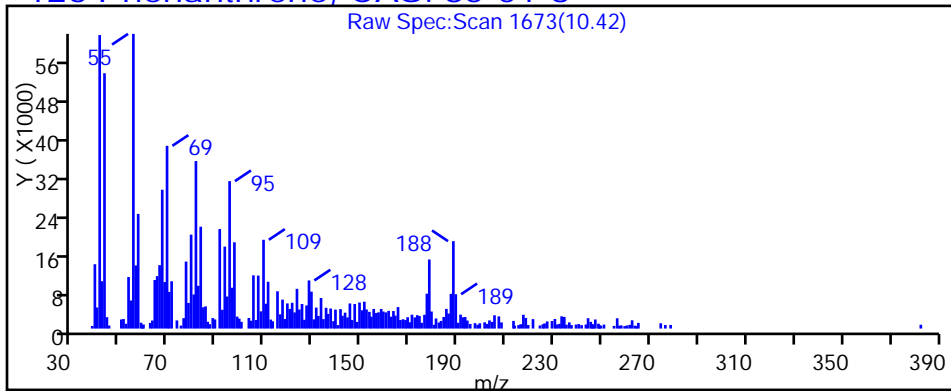
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**126 Phenanthrene, CAS: 85-01-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

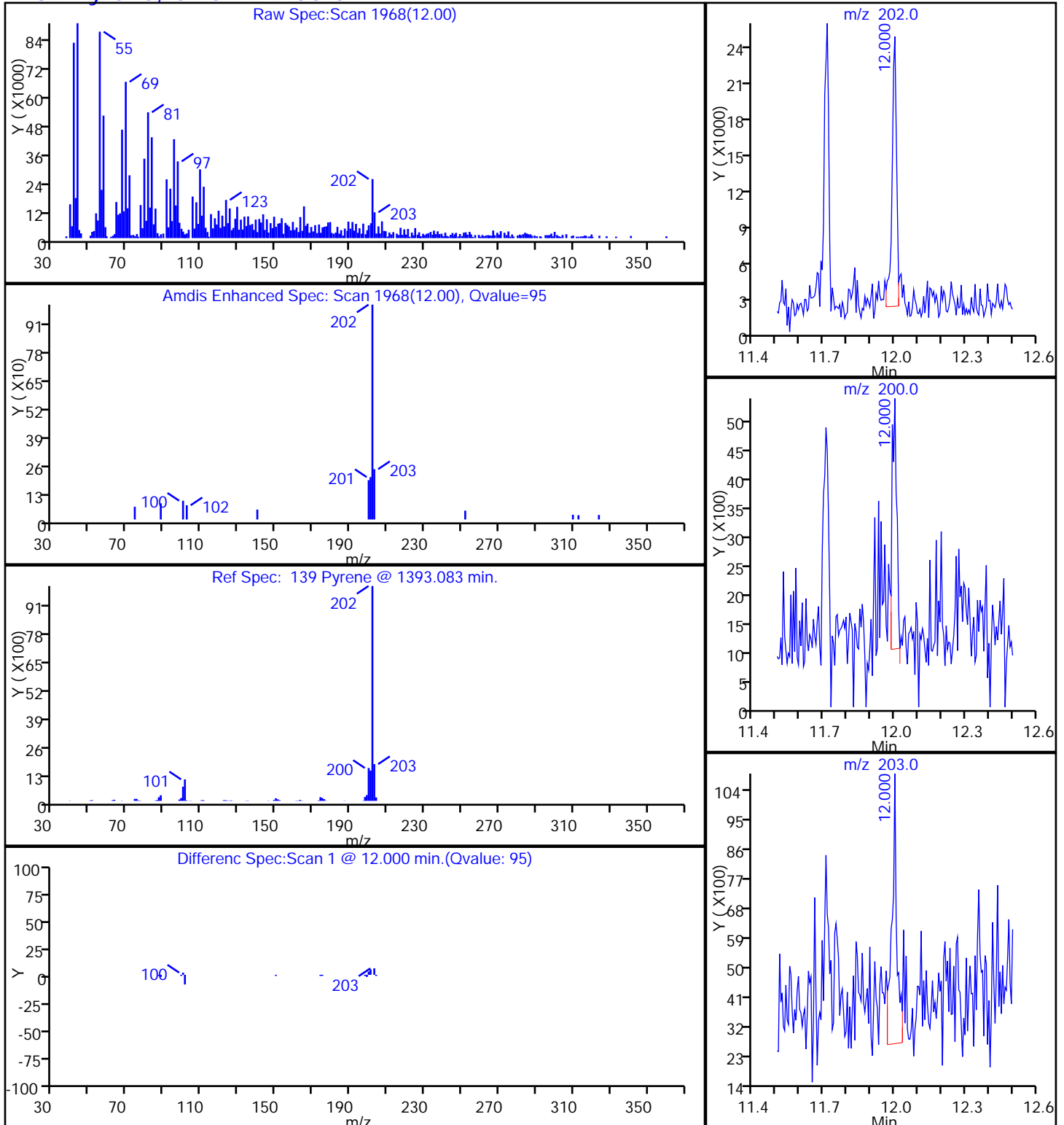
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**139 Pyrene, CAS: 129-00-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

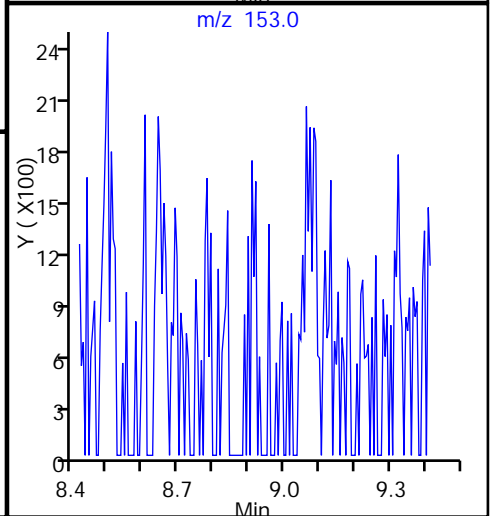
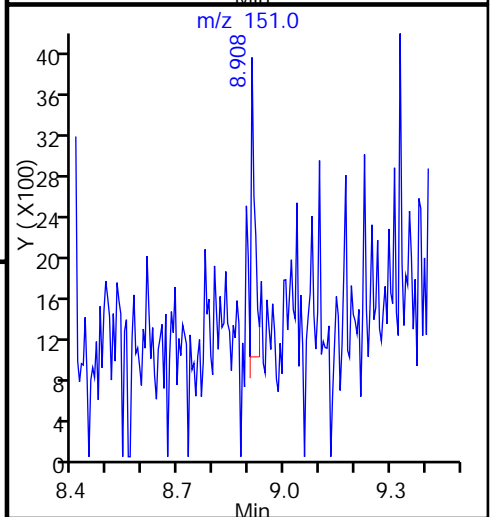
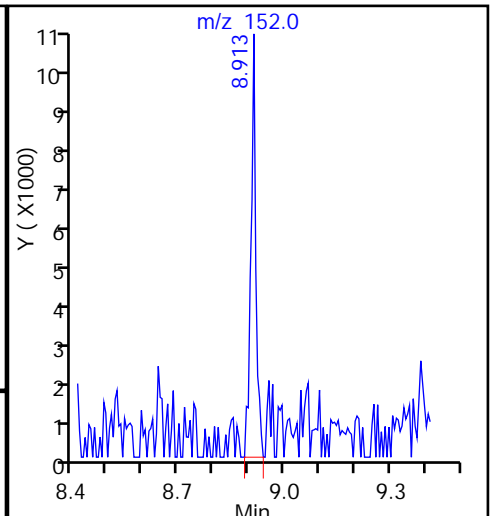
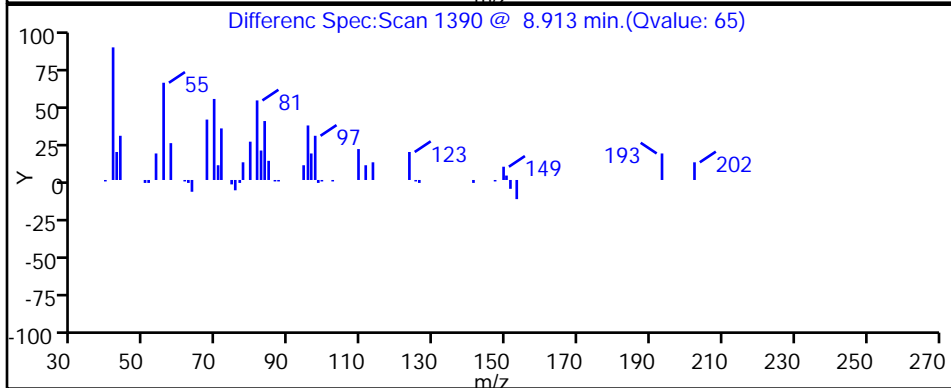
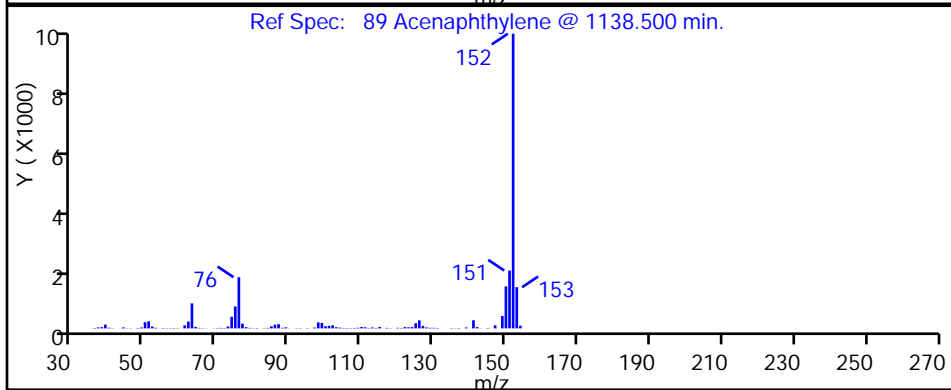
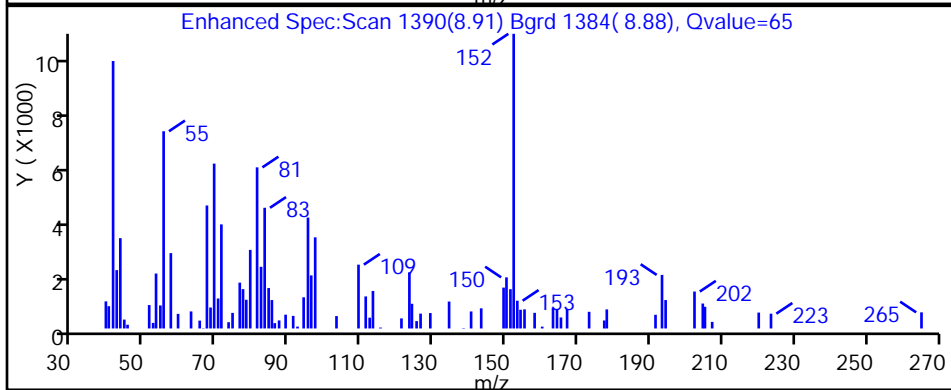
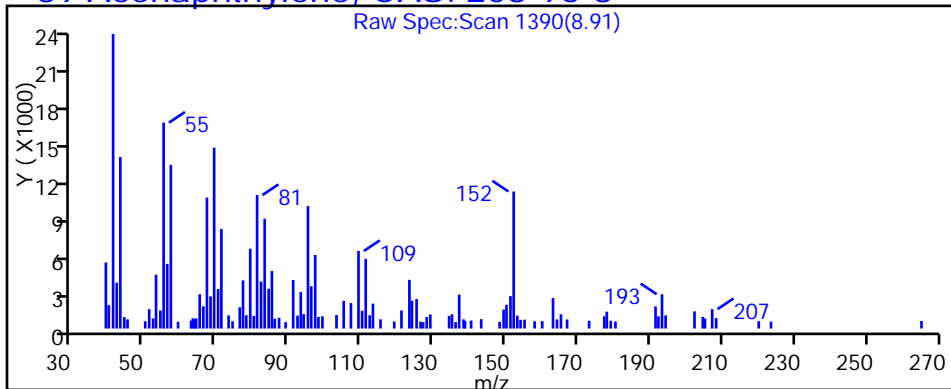
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**89 Acenaphthylene, CAS: 208-96-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030024.D

Injection Date: 30-Oct-2014 19:12:30

Instrument ID: CH731

Lims ID: 180-37750-A-3-A

Lab Sample ID: 180-37750-3

Client ID: SD-A03

Operator ID: 003200

ALS Bottle#: 23

Worklist Smp#: 24

Injection Vol: 2.0 ul

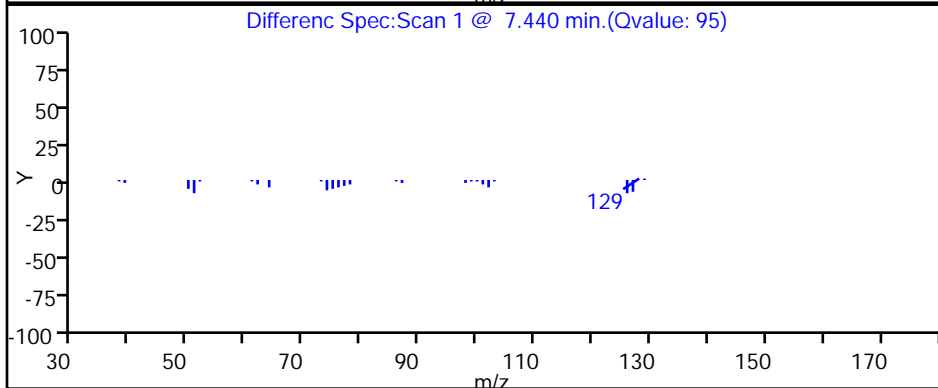
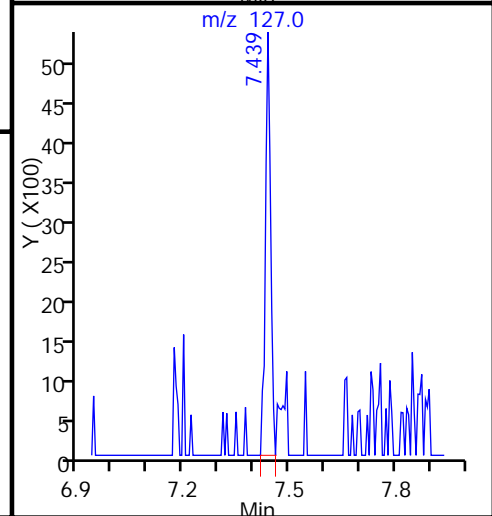
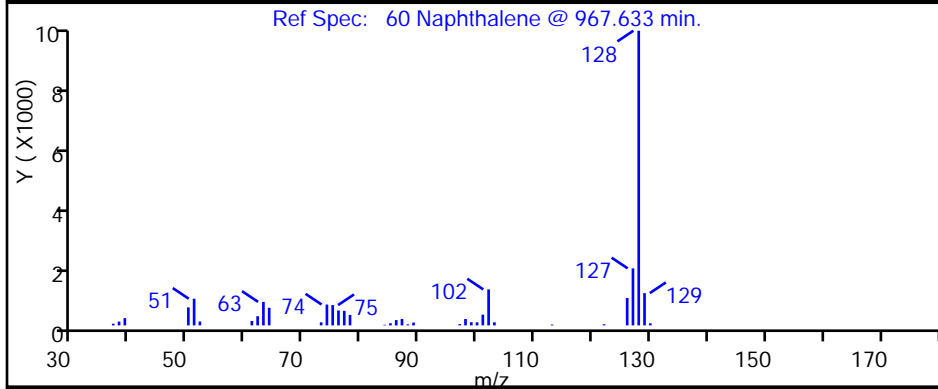
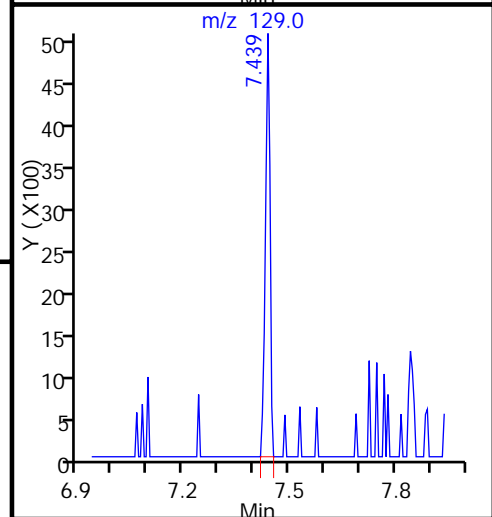
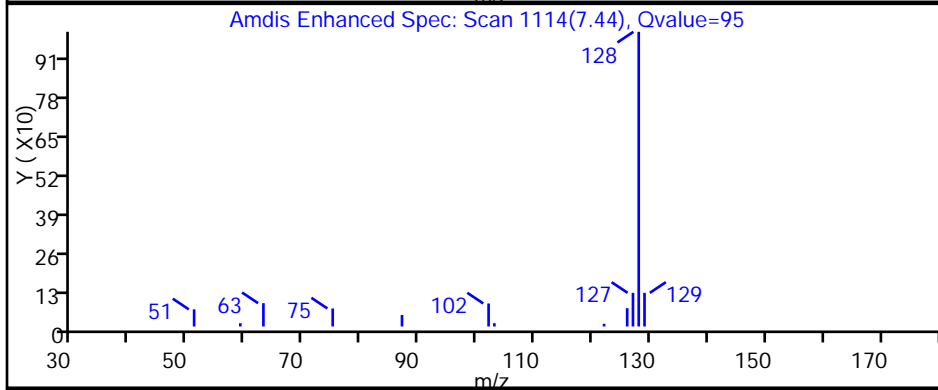
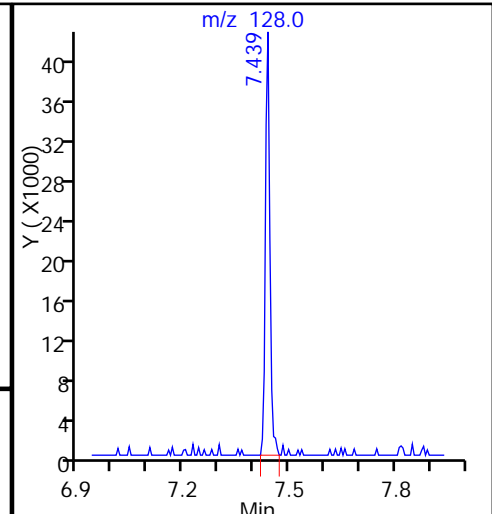
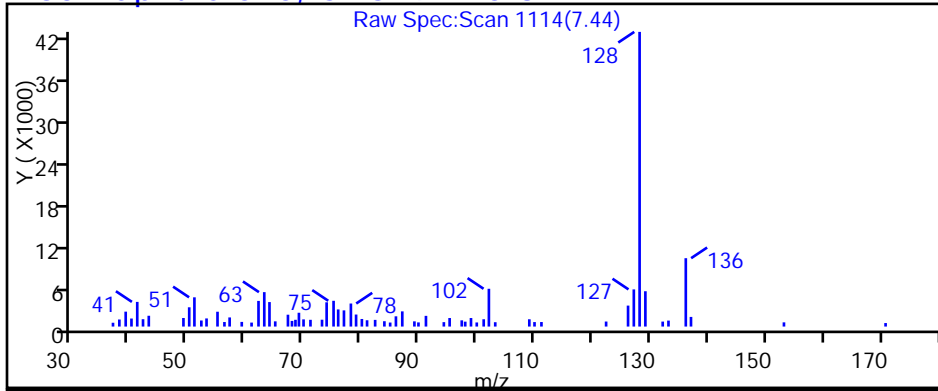
Dil. Factor: 20.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**60 Naphthalene, CAS: 91-20-3**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01</u>	Lab Sample ID: <u>180-37750-4</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030025.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/30/2014 19:40</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		19	1.8
208-96-8	Acenaphthylene	ND		19	2.1
120-12-7	Anthracene	ND		19	1.8
92-87-5	Benzidine	ND		1900	390
56-55-3	Benzo[a]anthracene	ND		19	2.4
205-99-2	Benzo[b]fluoranthene	ND		19	2.9
207-08-9	Benzo[k]fluoranthene	ND		19	3.8
65-85-0	Benzoic acid	ND	*	480	39
191-24-2	Benzo[g,h,i]perylene	ND		19	1.9
50-32-8	Benzo[a]pyrene	ND		19	1.9
111-91-1	Bis(2-chloroethoxy)methane	ND		93	6.2
111-44-4	Bis(2-chloroethyl)ether	ND		19	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	ND		190	15
108-60-1	2,2'-oxybis[1-chloropropane]	ND		19	2.0
101-55-3	4-Bromophenyl phenyl ether	ND		93	8.2
7005-72-3	4-Chlorophenyl phenyl ether	ND		93	10
91-58-7	2-Chloronaphthalene	ND		19	2.0
85-68-7	Butyl benzyl phthalate	ND		93	13
218-01-9	Chrysene	ND		19	2.2
53-70-3	Dibenz(a,h)anthracene	ND		19	2.1
84-74-2	Di-n-butyl phthalate	ND		93	12
117-84-0	Di-n-octyl phthalate	ND		93	9.9
84-66-2	Diethyl phthalate	ND		93	10
131-11-3	Dimethyl phthalate	ND		93	10
91-94-1	3,3'-Dichlorobenzidine	ND		93	9.9
121-14-2	2,4-Dinitrotoluene	ND		93	7.6
606-20-2	2,6-Dinitrotoluene	ND		93	9.7
95-57-8	2-Chlorophenol	ND		93	7.7
120-83-2	2,4-Dichlorophenol	ND		19	1.9
105-67-9	2,4-Dimethylphenol	ND		93	15
51-28-5	2,4-Dinitrophenol	ND		480	110
88-75-5	2-Nitrophenol	ND		93	10
88-06-2	2,4,6-Trichlorophenol	ND		93	14
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		93	12

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01</u>	Lab Sample ID: <u>180-37750-4</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030025.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/30/2014 19:40</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		93	5.2
59-50-7	4-Chloro-3-methylphenol	ND		93	8.6
100-02-7	4-Nitrophenol	ND		480	34
534-52-1	4,6-Dinitro-2-methylphenol	ND		480	38
206-44-0	Fluoranthene	7.7	J	19	2.0
86-73-7	Fluorene	ND		19	2.5
118-74-1	Hexachlorobenzene	ND		19	2.0
87-68-3	Hexachlorobutadiene	ND		19	2.1
77-47-4	Hexachlorocyclopentadiene	ND		93	10
67-72-1	Hexachloroethane	ND		93	6.7
193-39-5	Indeno[1,2,3-cd]pyrene	ND		19	1.9
78-59-1	Isophorone	ND		93	7.1
91-20-3	Naphthalene	4.1	J	19	1.6
98-95-3	Nitrobenzene	ND		190	7.8
621-64-7	N-Nitrosodi-n-propylamine	ND		19	2.2
62-75-9	N-Nitrosodimethylamine	ND		93	8.0
86-30-6	N-Nitrosodiphenylamine	ND		93	8.7
85-01-8	Phenanthrene	ND		19	3.0
129-00-0	Pyrene	7.9	J	19	1.9
87-86-5	Pentachlorophenol	ND		93	8.4
108-95-2	Phenol	ND		19	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	61		21-116
321-60-8	2-Fluorobiphenyl	71		28-108
367-12-4	2-Fluorophenol (Surr)	76		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	89		27-110
4165-62-2	Phenol-d5 (Surr)	68		30-112
1718-51-0	Terphenyl-d14 (Surr)	83		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030025.D  
 Lims ID: 180-37750-C-4-D Lab Sample ID: 180-37750-4  
 Client ID: SD-B01  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 19:40:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Injection Vol: 2.0 ul Dil. Factor: 4.0000  
 Sample Info: 180-0004095-025  
 Misc. Info.: 180-37750-C-4-D  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:30 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 31-Oct-2014 02:40:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.220	6.216	0.004	91	210602	8.00	
* 2 Naphthalene-d8	136	7.422	7.418	0.004	99	723458	8.00	
* 3 Acenaphthene-d10	164	9.040	9.036	0.004	91	390131	8.00	
* 4 Phenanthrene-d10	188	10.413	10.398	0.015	96	398734	8.00	
* 5 Chrysene-d12	240	13.884	13.859	0.025	96	324423	8.00	
* 6 Perylene-d12	264	16.790	16.759	0.031	99	285977	8.00	
\$ 7 2-Fluorophenol	112	4.885	4.881	0.004	92	226841	7.62	
\$ 8 Phenol-d5	99	5.873	5.869	0.004	91	267687	6.79	
\$ 9 Nitrobenzene-d5	82	6.743	6.739	0.004	95	293634	8.88	
\$ 10 2-Fluorobiphenyl	172	8.404	8.400	0.004	99	477736	7.11	
\$ 11 2,4,6-Tribromophenol	330	9.766	9.752	0.014	76	27969	6.08	
\$ 12 Terphenyl-d14	244	12.159	12.134	0.025	97	287256	8.34	
14 N-Nitrosodimethylamine	74		2.360				ND	
27 Phenol	94		5.885				ND	
29 Bis(2-chloroethyl)ether	93		5.960				ND	
31 2-Chlorophenol	128		6.013				ND	
40 2,2'-oxybis[1-chloropropan	45		6.483				ND	
44 N-Nitrosodi-n-propylamine	70		6.595				ND	
47 Hexachloroethane	117		6.707				ND	
48 Nitrobenzene	77		6.761				ND	
50 Isophorone	82		6.980				ND	
51 2-Nitrophenol	139		7.060				ND	
52 2,4-Dimethylphenol	107		7.092				ND	
56 Benzoic acid	122		7.140				ND	
55 Bis(2-chloroethoxy)methane	93		7.172				ND	
57 2,4-Dichlorophenol	162		7.284				ND	
59 1,2,4-Trichlorobenzene	180		7.364				ND	
60 Naphthalene	128	7.443	7.439	0.004	92	8308	0.0872	
64 Hexachlorobutadiene	225		7.556				ND	
70 4-Chloro-3-methylphenol	107		7.909				ND	
76 Hexachlorocyclopentadiene	237		8.224				ND	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196		8.326				ND	
81 2-Chloronaphthalene	162		8.523				ND	
86 Dimethyl phthalate	163		8.748				ND	
88 2,6-Dinitrotoluene	165		8.812				ND	
89 Acenaphthylene	152		8.908				ND	
91 Acenaphthene	153		9.063				ND	
92 2,4-Dinitrophenol	184		9.068				ND	
93 4-Nitrophenol	109		9.105				ND	
94 2,4-Dinitrotoluene	165		9.180				ND	
101 Diethyl phthalate	149		9.388				ND	
104 4-Chlorophenyl phenyl ethe	204		9.517				ND	
106 Fluorene	166		9.533				ND	
108 4,6-Dinitro-2-methylphenol	198		9.559				ND	
109 N-Nitrosodiphenylamine	169		9.618				ND	
111 1,2-Diphenylhydrazine	77		9.661				ND	
116 4-Bromophenyl phenyl ether	248		9.965				ND	
118 Hexachlorobenzene	284		10.051				ND	
122 Pentachlorophenol	266		10.216				ND	
126 Phenanthrene	178		10.419				ND	
128 Anthracene	178		10.467				ND	
132 Di-n-butyl phthalate	149		10.895				ND	
137 Fluoranthene	202	11.705	11.685	0.020	61	9828	0.1651	
138 Benzidine	184		11.813				ND	
139 Pyrene	202	11.994	11.984	0.010	55	8713	0.1678	
144 Butyl benzyl phthalate	149		12.817				ND	
149 3,3'-Dichlorobenzidine	252		13.768				ND	
151 Bis(2-ethylhexyl) phthalat	149		13.800				ND	
152 Benzo[a]anthracene	228		13.838				ND	
153 Chrysene	228		13.907				ND	
156 Di-n-octyl phthalate	149		15.087				ND	
158 Benzo[b]fluoranthene	252		15.963				ND	
159 Benzo[k]fluoranthene	252		16.017				ND	
160 Benzo[a]pyrene	252		16.642				ND	
163 Indeno[1,2,3-cd]pyrene	276		18.949				ND	
164 Dibenz(a,h)anthracene	278		18.981				ND	
165 Benzo[g,h,i]perylene	276		19.537				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030025.D

Injection Date: 30-Oct-2014 19:40:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-C-4-D

Lab Sample ID: 180-37750-4

Worklist Smp#: 25

Client ID: SD-B01

Injection Vol: 2.0 ul

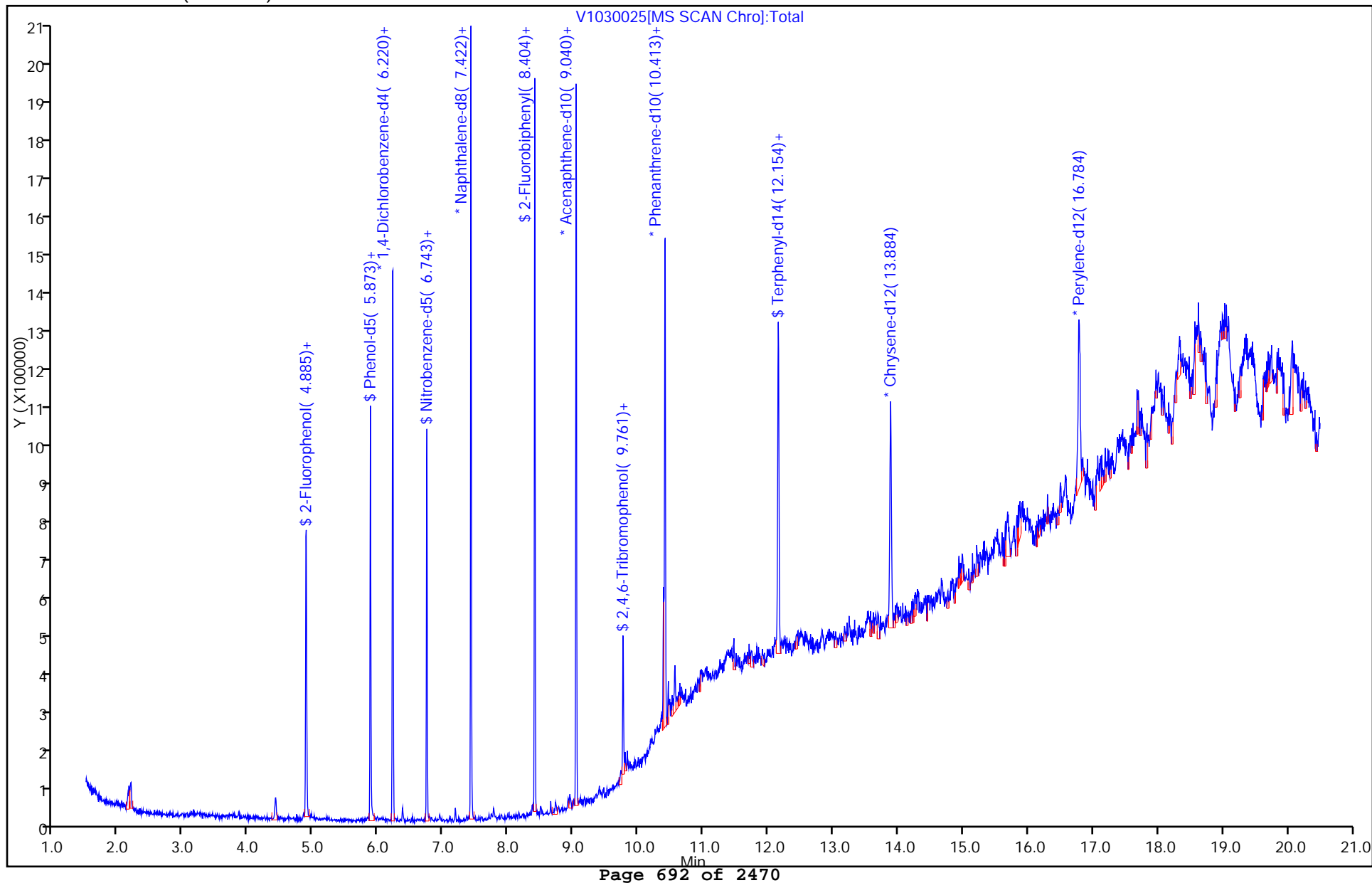
Dil. Factor: 4.0000

ALS Bottle#: 24

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030025.D

Injection Date: 30-Oct-2014 19:40:30

Instrument ID: CH731

Lims ID: 180-37750-C-4-D

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 003200

ALS Bottle#: 24

Worklist Smp#: 25

Injection Vol: 2.0 ul

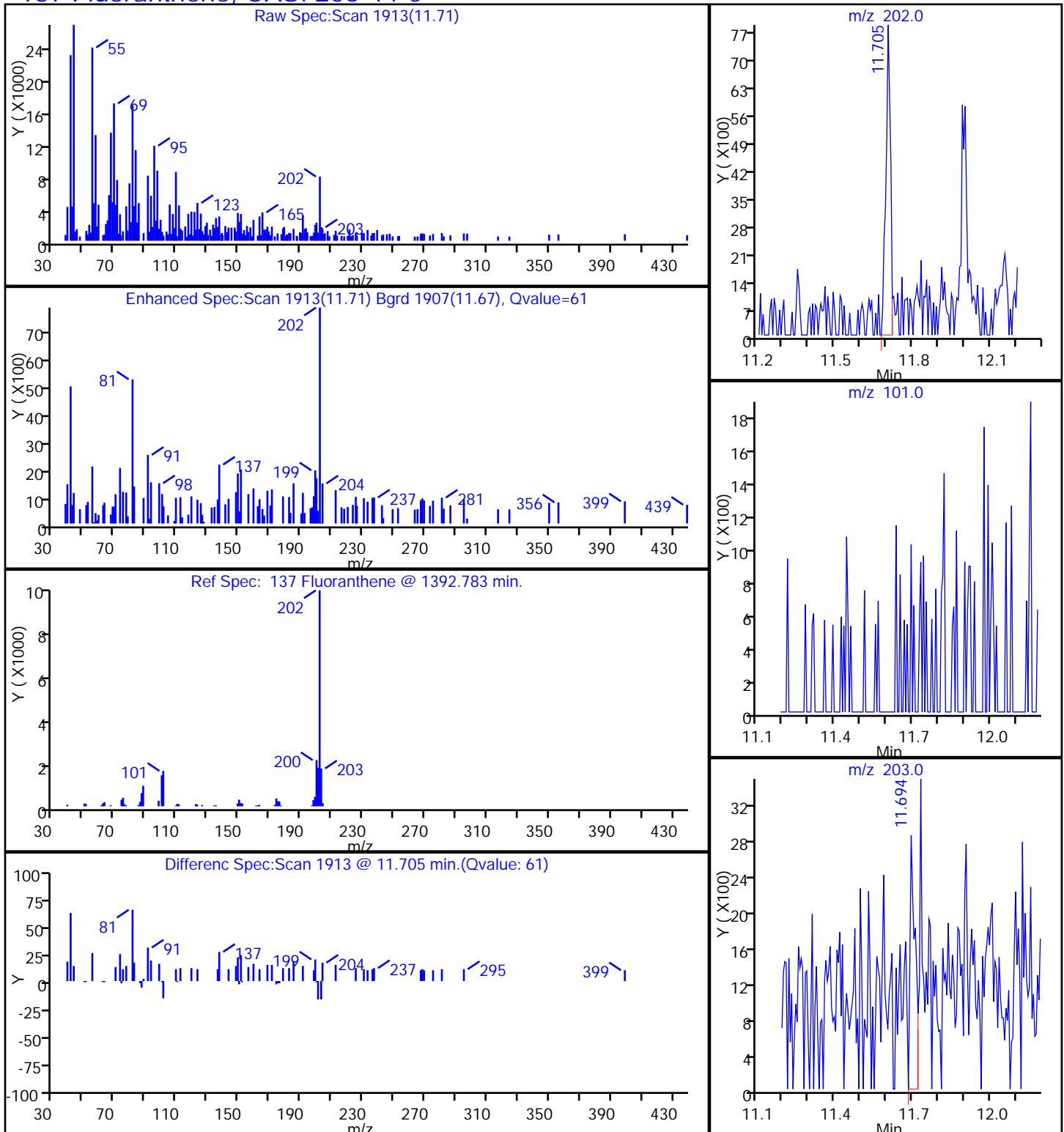
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**137 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030025.D

Injection Date: 30-Oct-2014 19:40:30

Instrument ID: CH731

Lims ID: 180-37750-C-4-D

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 003200

ALS Bottle#: 24

Worklist Smp#: 25

Injection Vol: 2.0 ul

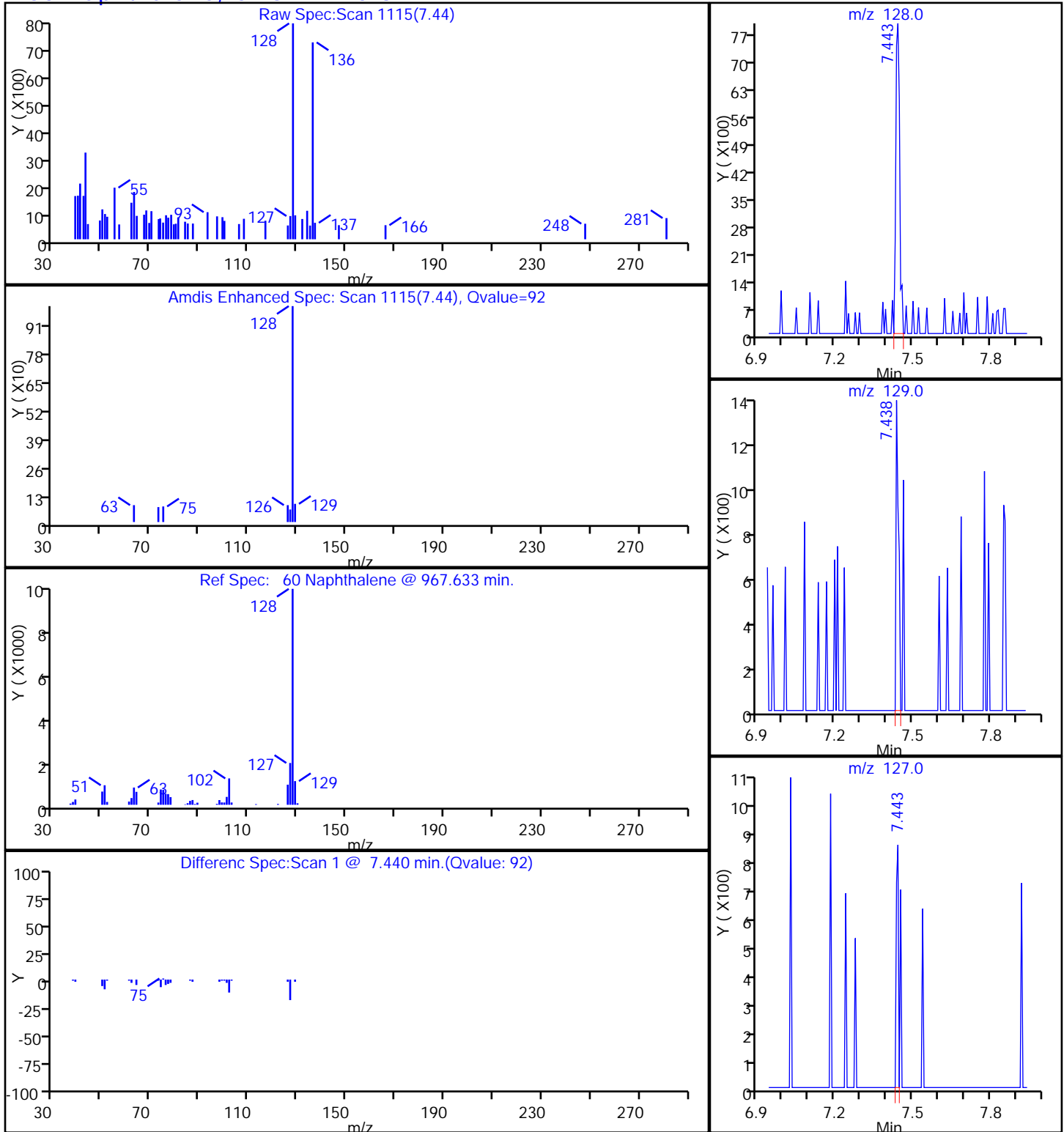
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**60 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030025.D

Injection Date: 30-Oct-2014 19:40:30

Instrument ID: CH731

Lims ID: 180-37750-C-4-D

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 003200

ALS Bottle#: 24

Worklist Smp#: 25

Injection Vol: 2.0 ul

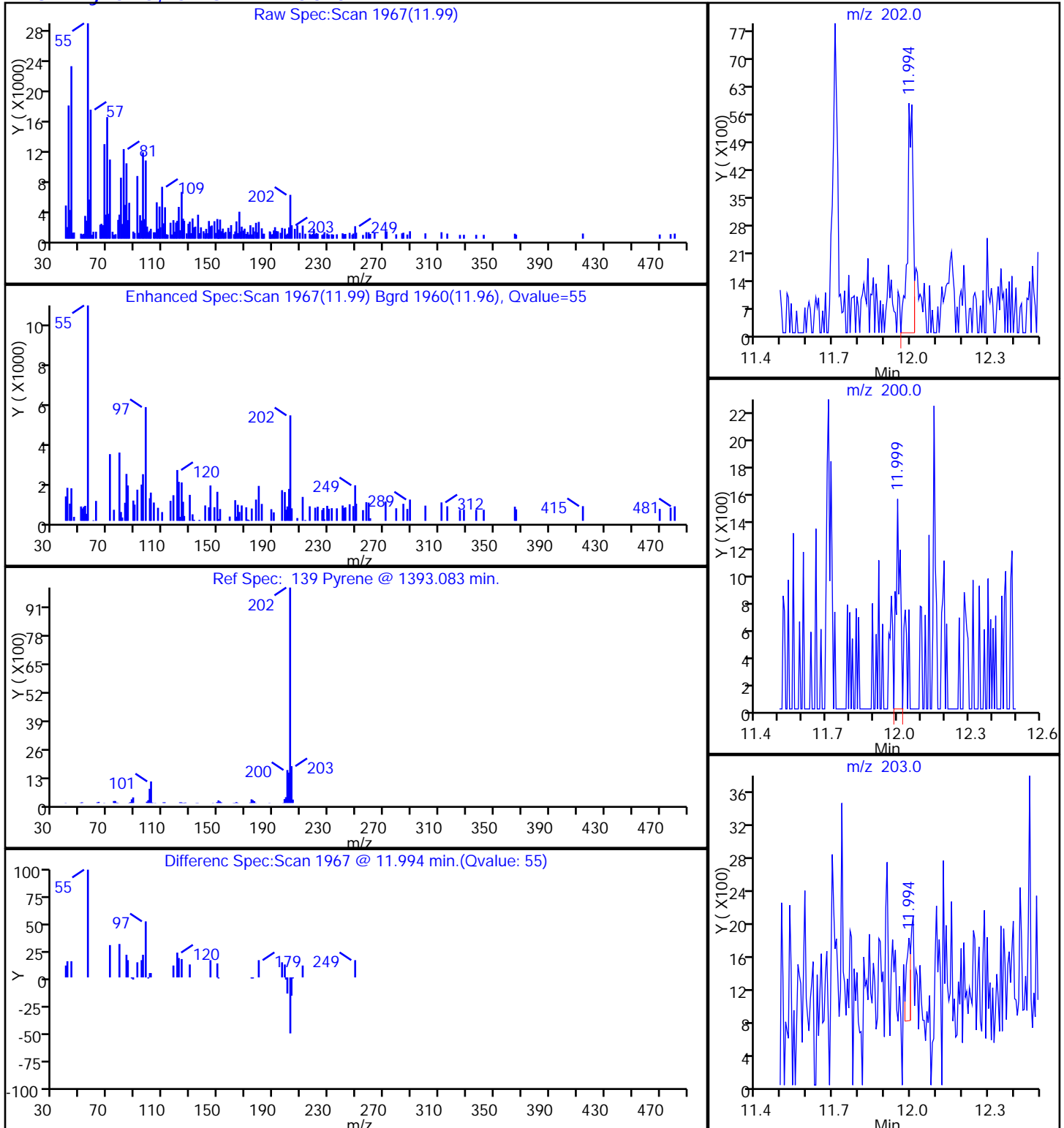
Dil. Factor: 4.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**139 Pyrene, CAS: 129-00-0**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B02</u>	Lab Sample ID: <u>180-37750-5</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031026.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:10</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.1(g)</u>	Date Analyzed: <u>10/31/2014 21:30</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>76.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		350	33
208-96-8	Acenaphthylene	89	J	350	40
120-12-7	Anthracene	110	J	350	34
92-87-5	Benzidine	ND		35000	7300
56-55-3	Benzo[a]anthracene	280	J	350	43
205-99-2	Benzo[b]fluoranthene	ND		350	54
207-08-9	Benzo[k]fluoranthene	ND		350	70
65-85-0	Benzoic acid	ND	*	8800	720
191-24-2	Benzo[g,h,i]perylene	ND		350	34
50-32-8	Benzo[a]pyrene	ND		350	35
111-91-1	Bis(2-chloroethoxy)methane	ND		1700	110
111-44-4	Bis(2-chloroethyl)ether	ND		350	46
117-81-7	Bis(2-ethylhexyl) phthalate	910	J	3500	280
108-60-1	2,2'-oxybis[1-chloropropane]	ND		350	37
101-55-3	4-Bromophenyl phenyl ether	ND		1700	150
7005-72-3	4-Chlorophenyl phenyl ether	ND		1700	190
91-58-7	2-Chloronaphthalene	ND		350	36
85-68-7	Butyl benzyl phthalate	ND		1700	240
218-01-9	Chrysene	250	J	350	41
53-70-3	Dibenz(a,h)anthracene	ND		350	38
84-74-2	Di-n-butyl phthalate	ND		1700	220
117-84-0	Di-n-octyl phthalate	ND		1700	180
84-66-2	Diethyl phthalate	ND		1700	190
131-11-3	Dimethyl phthalate	ND		1700	190
91-94-1	3,3'-Dichlorobenzidine	ND		1700	180
121-14-2	2,4-Dinitrotoluene	ND		1700	140
606-20-2	2,6-Dinitrotoluene	ND		1700	180
95-57-8	2-Chlorophenol	ND		1700	140
120-83-2	2,4-Dichlorophenol	ND		350	35
105-67-9	2,4-Dimethylphenol	ND		1700	270
51-28-5	2,4-Dinitrophenol	ND		8800	2100
88-75-5	2-Nitrophenol	ND		1700	190
88-06-2	2,4,6-Trichlorophenol	ND		1700	260
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		1700	220

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B02</u>	Lab Sample ID: <u>180-37750-5</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031026.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:10</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.1(g)</u>	Date Analyzed: <u>10/31/2014 21:30</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>76.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		1700	96
59-50-7	4-Chloro-3-methylphenol	ND		1700	160
100-02-7	4-Nitrophenol	ND		8800	630
534-52-1	4,6-Dinitro-2-methylphenol	ND		8800	700
206-44-0	Fluoranthene	490		350	37
86-73-7	Fluorene	ND		350	46
118-74-1	Hexachlorobenzene	ND		350	37
87-68-3	Hexachlorobutadiene	ND		350	39
77-47-4	Hexachlorocyclopentadiene	ND		1700	190
67-72-1	Hexachloroethane	ND		1700	120
193-39-5	Indeno[1,2,3-cd]pyrene	ND		350	36
78-59-1	Isophorone	ND		1700	130
91-20-3	Naphthalene	380		350	30
98-95-3	Nitrobenzene	ND		3500	140
621-64-7	N-Nitrosodi-n-propylamine	ND		350	41
62-75-9	N-Nitrosodimethylamine	ND		1700	150
86-30-6	N-Nitrosodiphenylamine	ND		1700	160
85-01-8	Phenanthrene	220	J	350	55
129-00-0	Pyrene	490		350	35
87-86-5	Pentachlorophenol	ND		1700	150
108-95-2	Phenol	ND		350	41

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	0	X D	21-116
321-60-8	2-Fluorobiphenyl	0	X D	28-108
367-12-4	2-Fluorophenol (Surr)	0	X D	28-107
4165-60-0	Nitrobenzene-d5 (Surr)	0	X D	27-110
4165-62-2	Phenol-d5 (Surr)	0	X D	30-112
1718-51-0	Terphenyl-d14 (Surr)	0	X D	21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D  
 Lims ID: 180-37750-C-5-A Lab Sample ID: 180-37750-5  
 Client ID: SD-B02  
 Sample Type: Client  
 Inject. Date: 31-Oct-2014 21:30:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Injection Vol: 2.0 ul Dil. Factor: 25.0000  
 Sample Info: 180-0004118-026  
 Misc. Info.: 180-37750-C-5-A  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 01-Nov-2014 12:43:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.127	6.137	-0.010	98	251591	8.00	
* 2 Naphthalene-d8	136	7.430	7.435	-0.005	100	953256	8.00	
* 3 Acenaphthene-d10	164	9.156	9.150	0.006	92	527621	8.00	
* 4 Phenanthrene-d10	188	10.614	10.603	0.011	97	811496	8.00	
* 5 Chrysene-d12	240	14.413	14.380	0.032	97	731282	8.00	
* 6 Perylene-d12	264	17.335	17.281	0.054	97	698547	8.00	
\$ 7 2-Fluorophenol	112		4.684				ND	
\$ 8 Phenol-d5	99		5.763				ND	
\$ 9 Nitrobenzene-d5	82		6.703				ND	
\$ 10 2-Fluorobiphenyl	172		8.477				ND	
\$ 11 2,4,6-Tribromophenol	330		9.914				ND	
\$ 12 Terphenyl-d14	244		12.537				ND	
14 N-Nitrosodimethylamine	74		2.082				ND	
26 Phenol	94		5.779				ND	
29 Bis(2-chloroethyl)ether	93		5.854				ND	
30 2-Chlorophenol	128		5.918				ND	
38 2,2'-oxybis[1-chloropropan	45		6.426				ND	
41 N-Nitrosodi-n-propylamine	70		6.549				ND	
45 Hexachloroethane	117		6.666				ND	
46 Nitrobenzene	77		6.725				ND	
48 Isophorone	82		6.960				ND	
49 2-Nitrophenol	139		7.051				ND	
50 2,4-Dimethylphenol	107		7.088				ND	
52 Benzoic acid	122		7.147				ND	
53 Bis(2-chloroethoxy)methane	93		7.174				ND	
54 2,4-Dichlorophenol	162		7.291				ND	
56 1,2,4-Trichlorobenzene	180		7.377				ND	
58 Naphthalene	128	7.452	7.457	-0.005	95	55708	0.4372	
62 Hexachlorobutadiene	225		7.580				ND	
67 4-Chloro-3-methylphenol	107		7.964				ND	
72 Hexachlorocyclopentadiene	237		8.290				ND	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 2,4,6-Trichlorophenol	196		8.402				ND	
77 2-Chloronaphthalene	162		8.611				ND	
82 Dimethyl phthalate	163		8.856				ND	
84 2,6-Dinitrotoluene	165		8.921				ND	
85 Acenaphthylene	152	9.022	9.017	0.005	89	12408	0.1034	
88 Acenaphthene	153		9.182				ND	
87 2,4-Dinitrophenol	184		9.188				ND	
89 4-Nitrophenol	109		9.236				ND	
91 2,4-Dinitrotoluene	165		9.310				ND	
98 Diethyl phthalate	149		9.524				ND	
100 4-Chlorophenyl phenyl ethe	204		9.663				ND	
103 Fluorene	166		9.679				ND	
104 4,6-Dinitro-2-methylphenol	198		9.711				ND	
105 N-Nitrosodiphenylamine	169		9.770				ND	
90 1,2-Diphenylhydrazine	77		9.813				ND	
110 4-Bromophenyl phenyl ether	248		10.133				ND	
112 Hexachlorobenzene	284		10.224				ND	
116 Pentachlorophenol	266		10.400				ND	
121 Phenanthrene	178	10.641	10.630	0.011	90	29354	0.2495	
122 Anthracene	178	10.689	10.683	0.006	32	14677	0.1241	
126 Di-n-butyl phthalate	149		11.159				ND	
131 Fluoranthene	202	12.067	12.035	0.032	96	69649	0.5655	
132 Benzidine	184		12.185				ND	
133 Pyrene	202	12.388	12.361	0.027	97	66524	0.5638	
138 Butyl benzyl phthalate	149		13.290				ND	
144 3,3'-Dichlorobenzidine	252		14.289				ND	
145 Bis(2-ethylhexyl) phthalat	149	14.375	14.338	0.037	84	58164	1.06	
146 Benzo[a]anthracene	228	14.402	14.359	0.043	47	34696	0.3214	
147 Chrysene	228	14.466	14.434	0.032	53	29474	0.2848	
150 Di-n-octyl phthalate	149		15.641				ND	
152 Benzo[b]fluoranthene	252		16.506				ND	
153 Benzo[k]fluoranthene	252		16.565				ND	
154 Benzo[a]pyrene	252		17.169				ND	
157 Indeno[1,2,3-cd]pyrene	276		19.658				ND	
158 Dibenz(a,h)anthracene	278		19.696				ND	
159 Benzo[g,h,i]perylene	276		20.348				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Worklist Smp#: 26

Client ID: SD-B02

Injection Vol: 2.0 ul

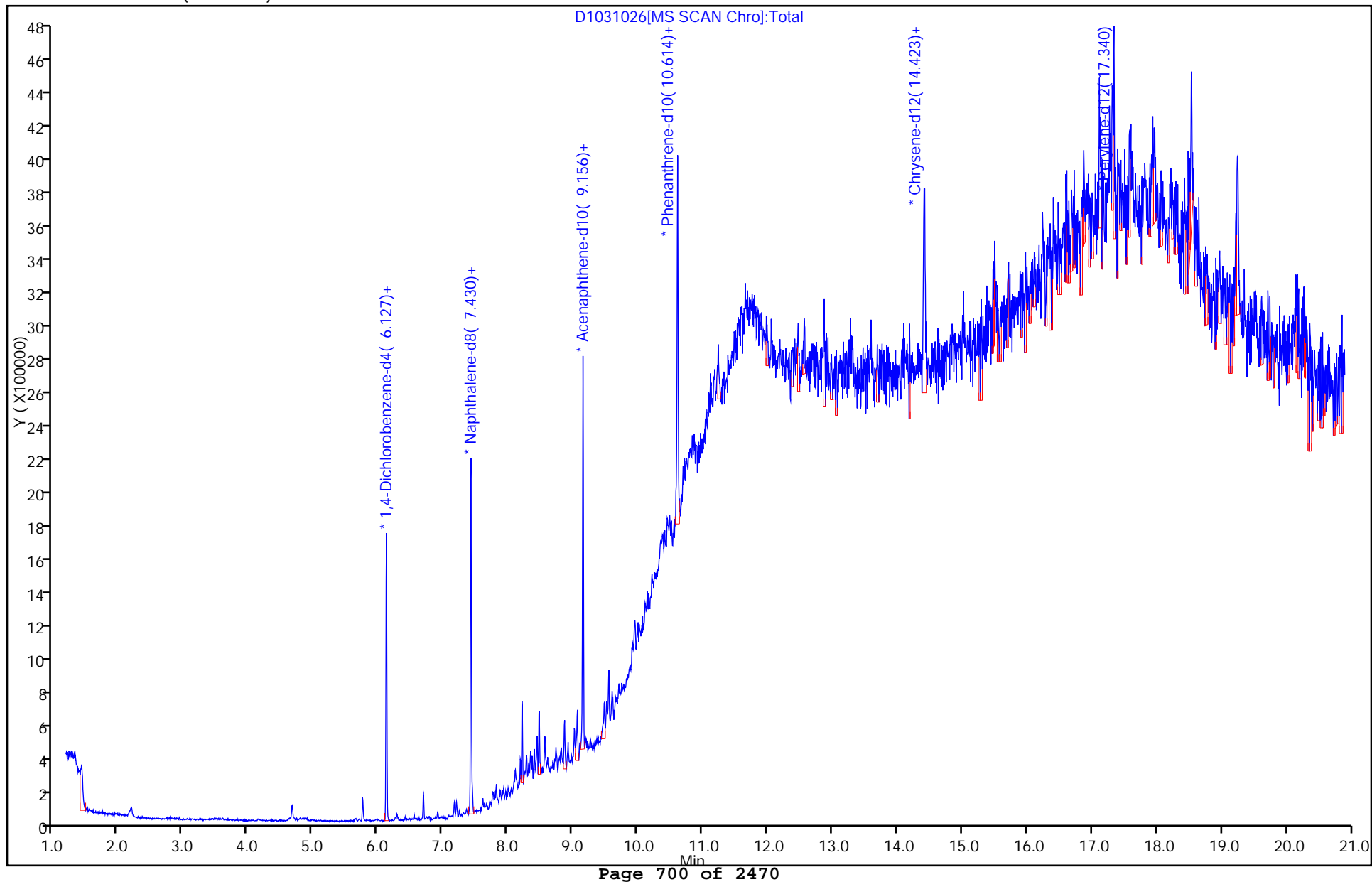
Dil. Factor: 25.0000

ALS Bottle#: 25

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

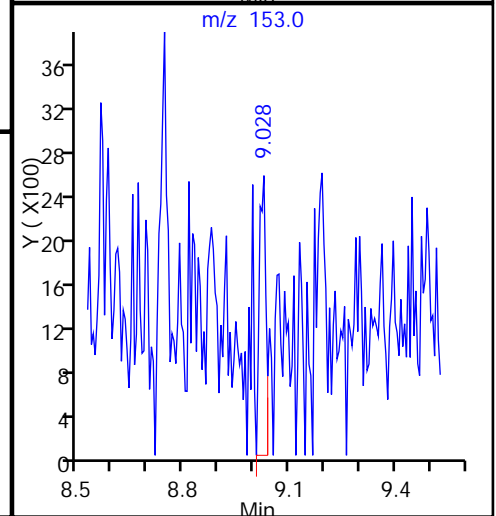
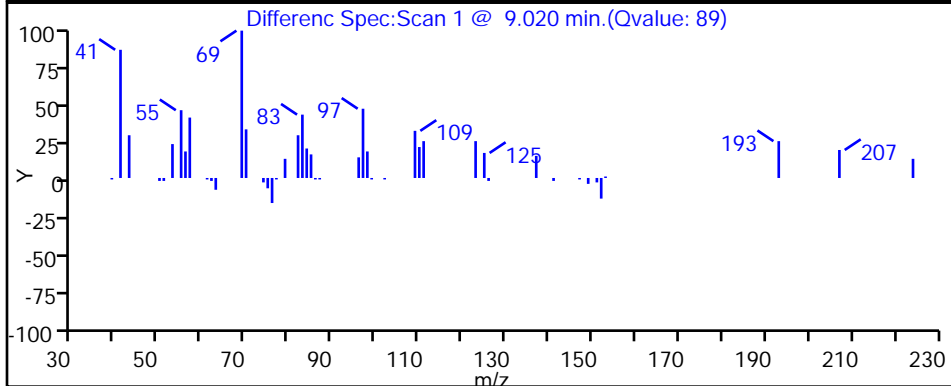
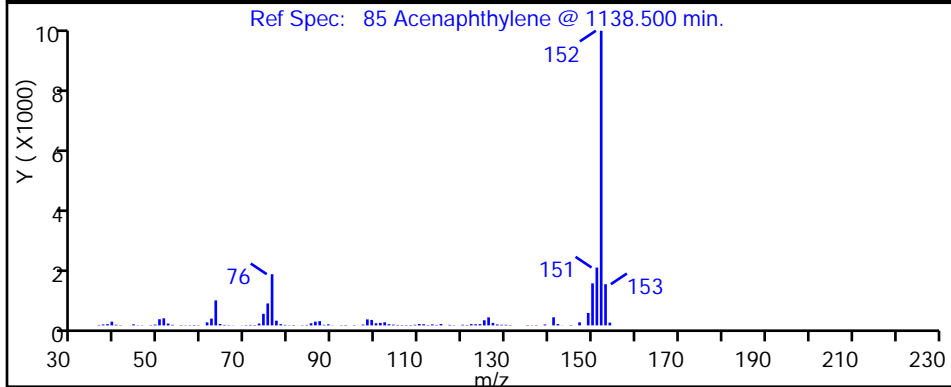
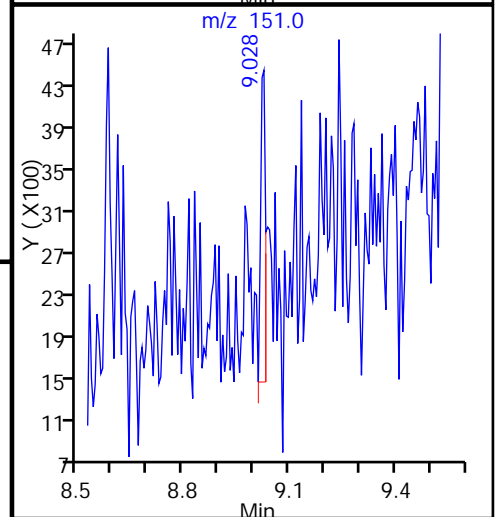
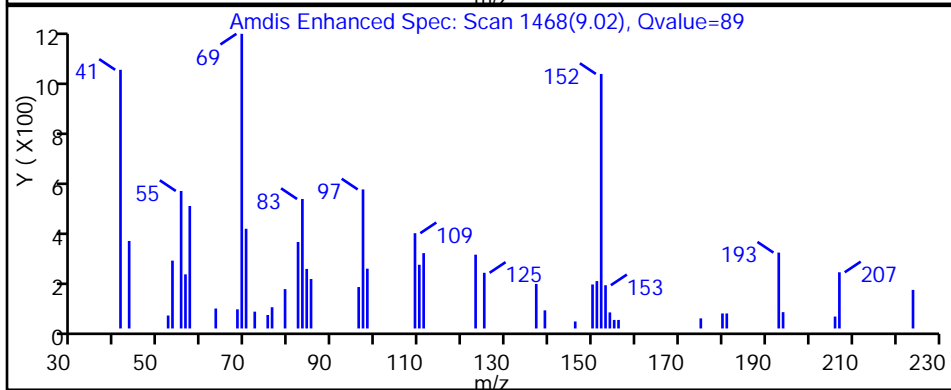
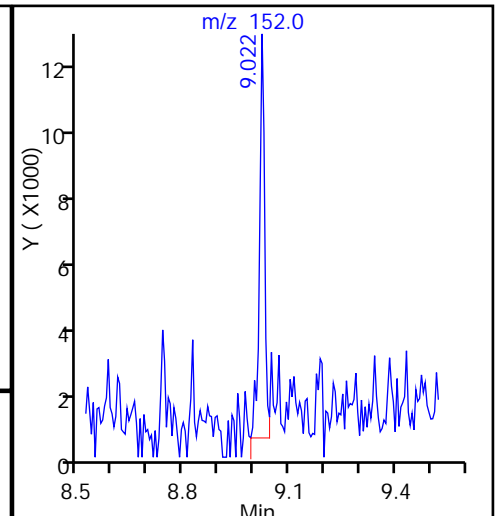
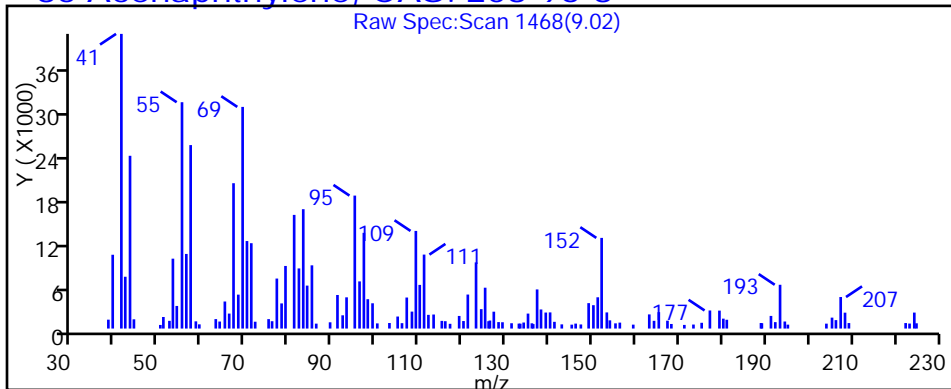
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**85 Acenaphthylene, CAS: 208-96-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

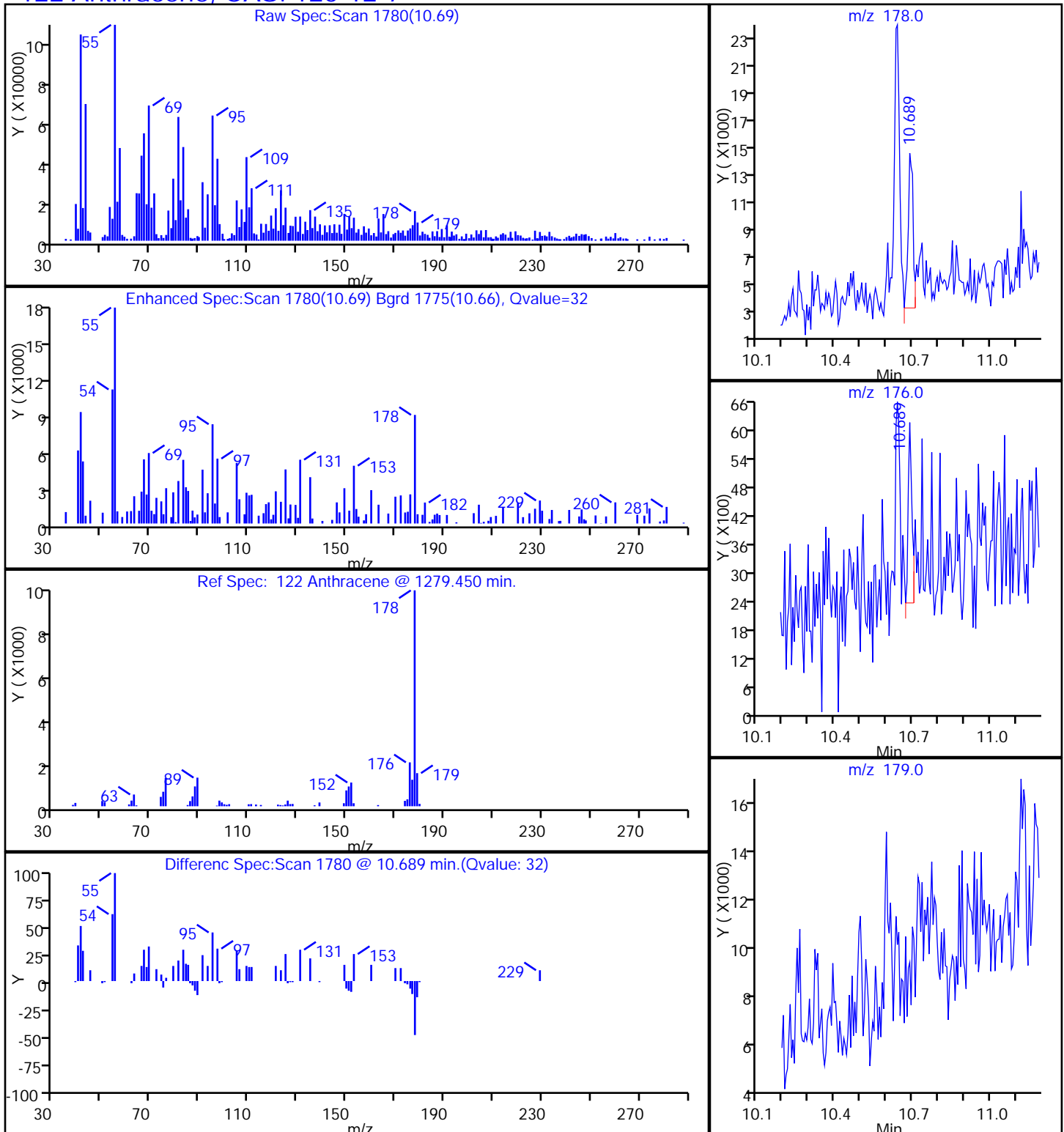
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**122 Anthracene, CAS: 120-12-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

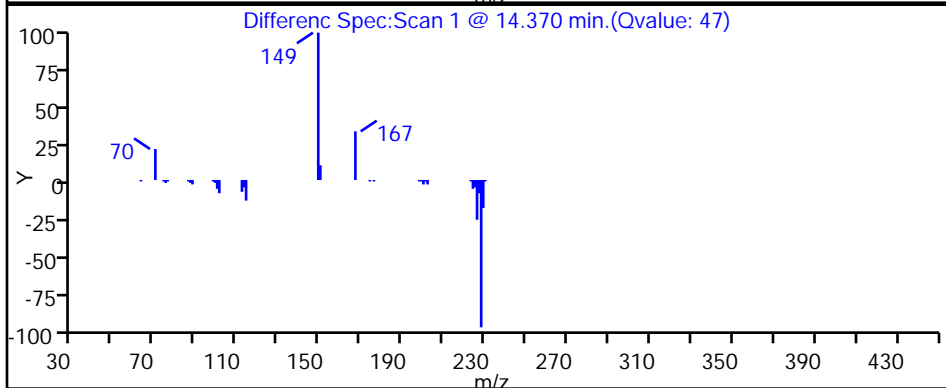
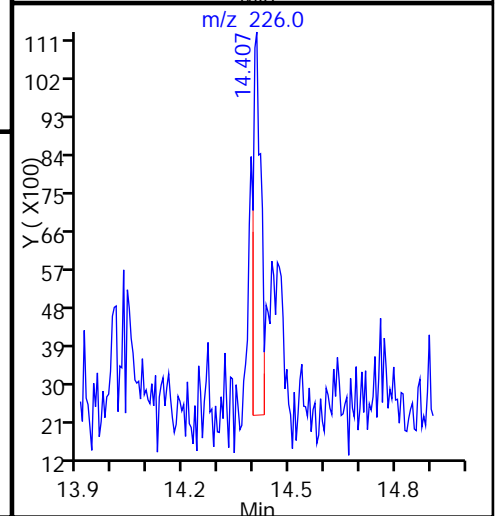
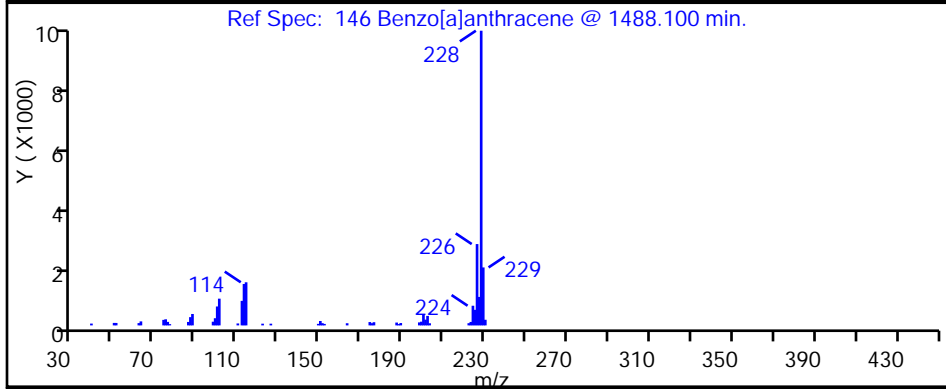
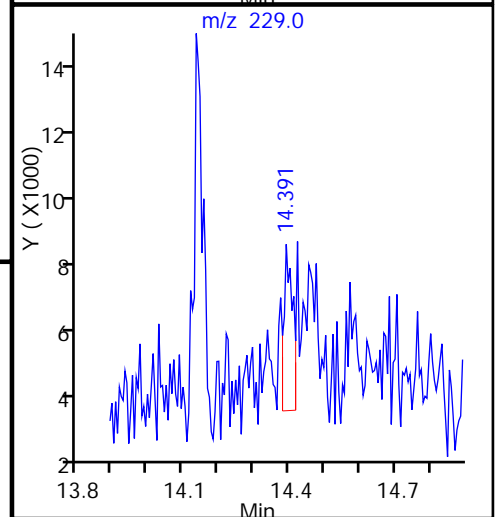
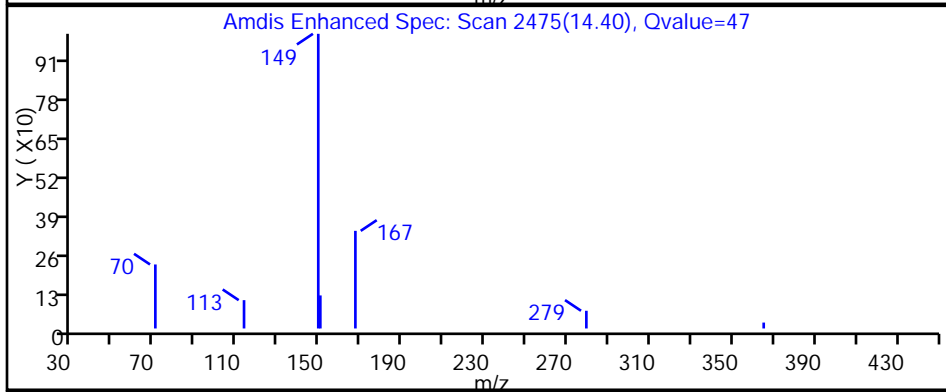
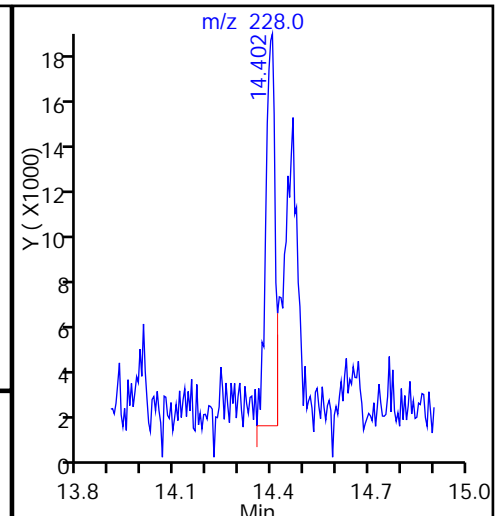
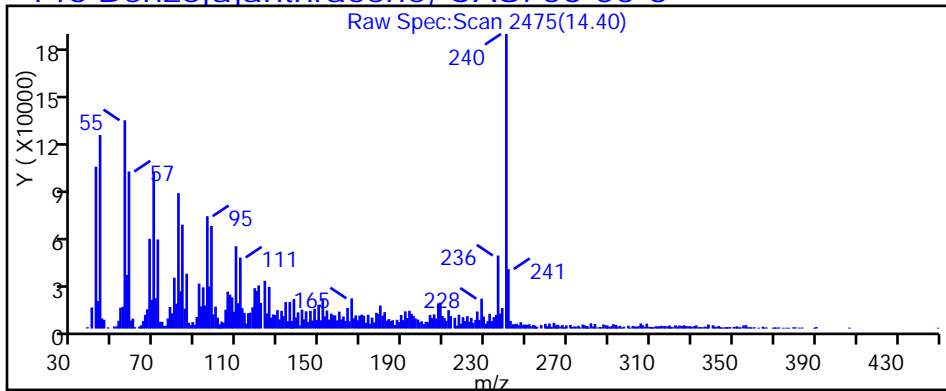
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**146 Benzo[a]anthracene, CAS: 56-55-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

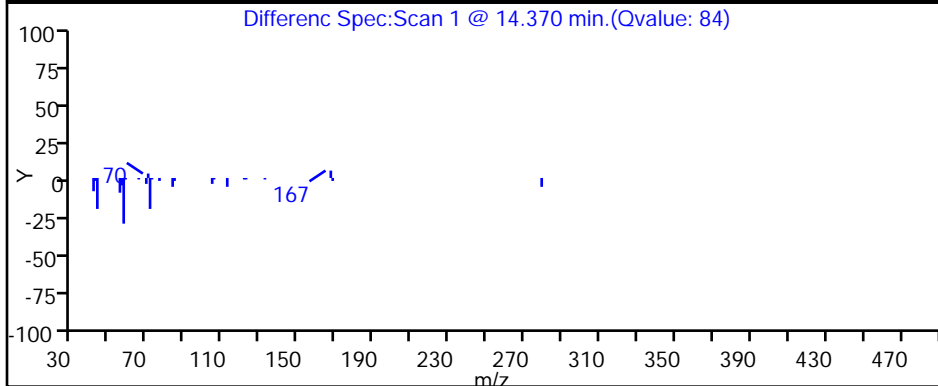
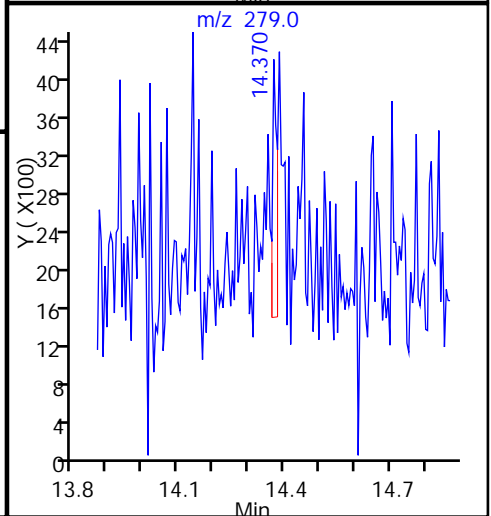
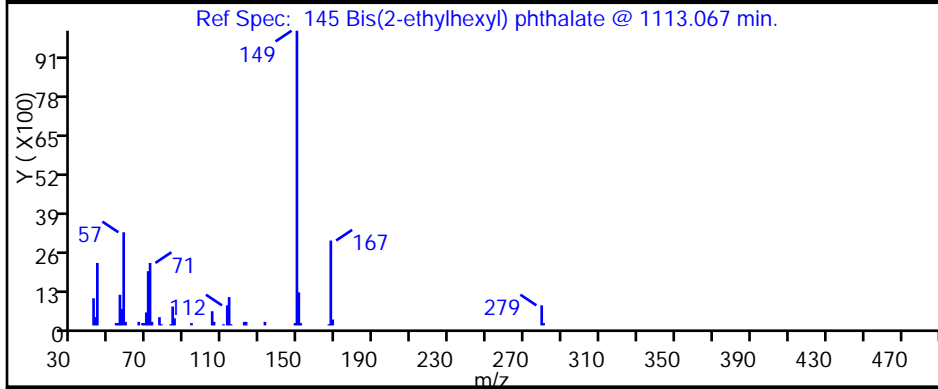
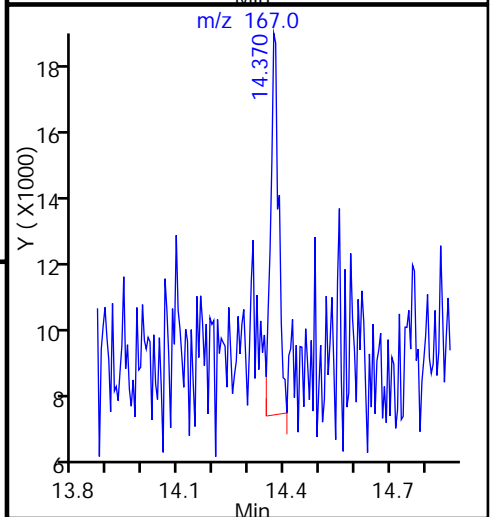
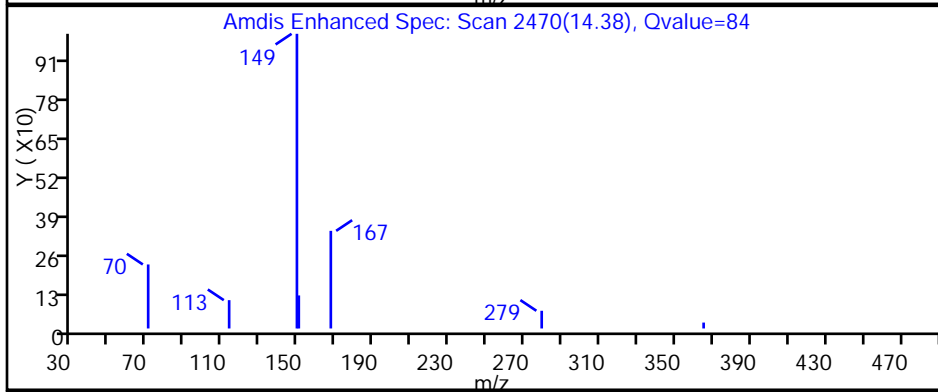
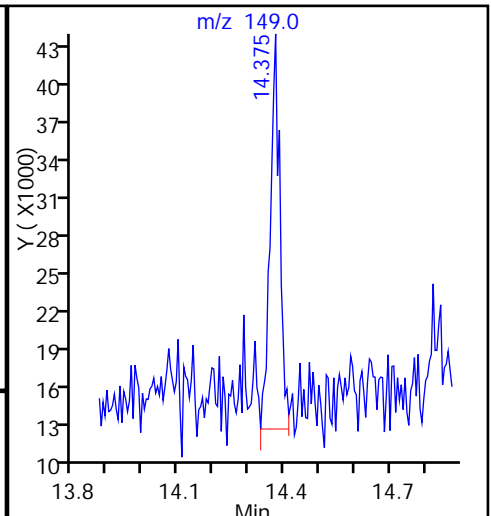
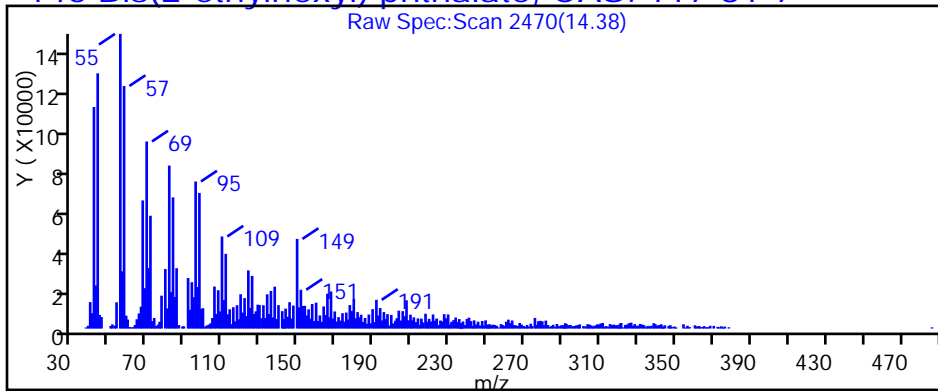
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**145 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

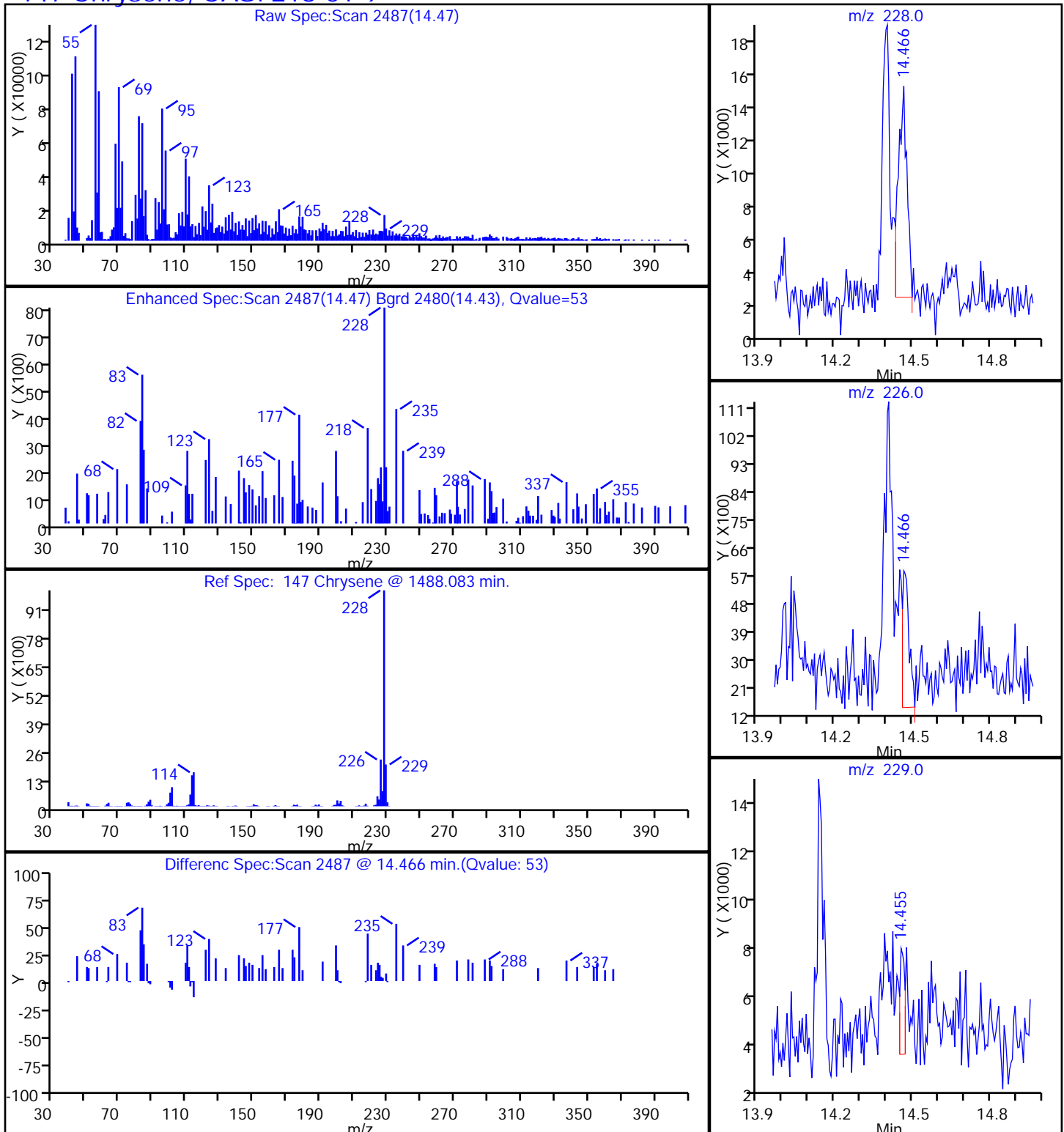
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**147 Chrysene, CAS: 218-01-9**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

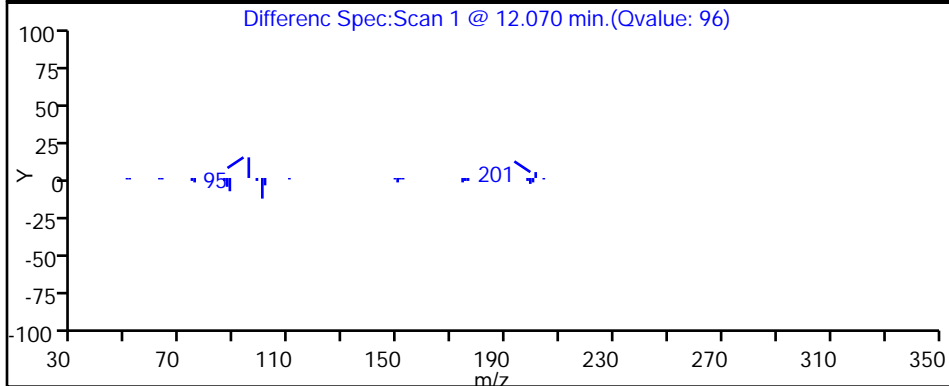
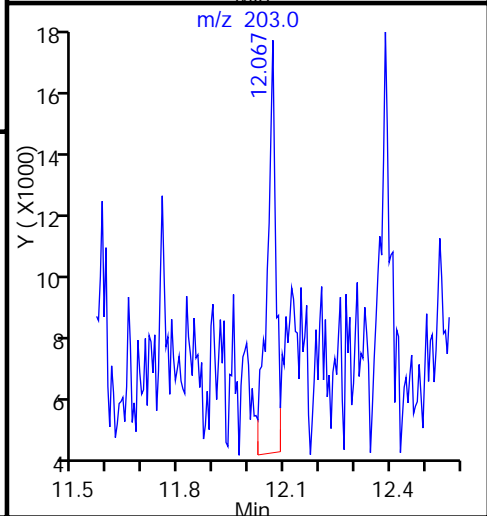
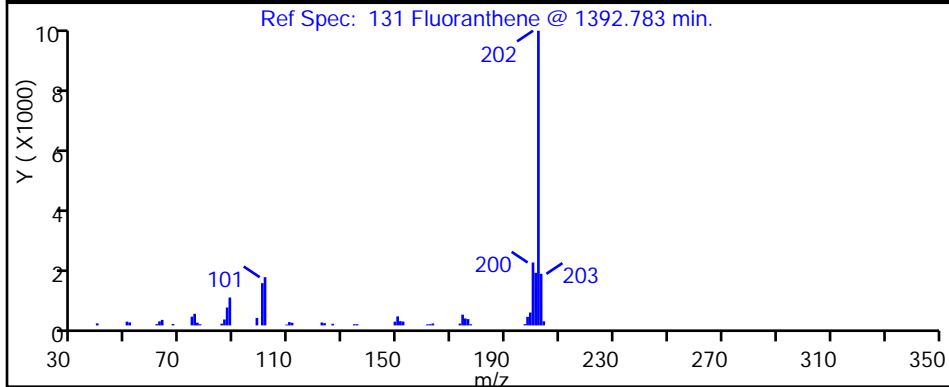
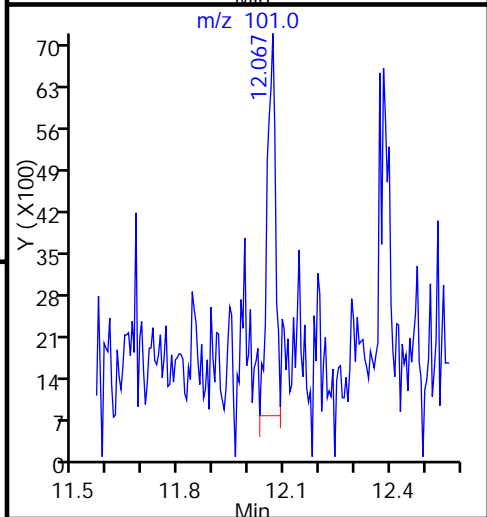
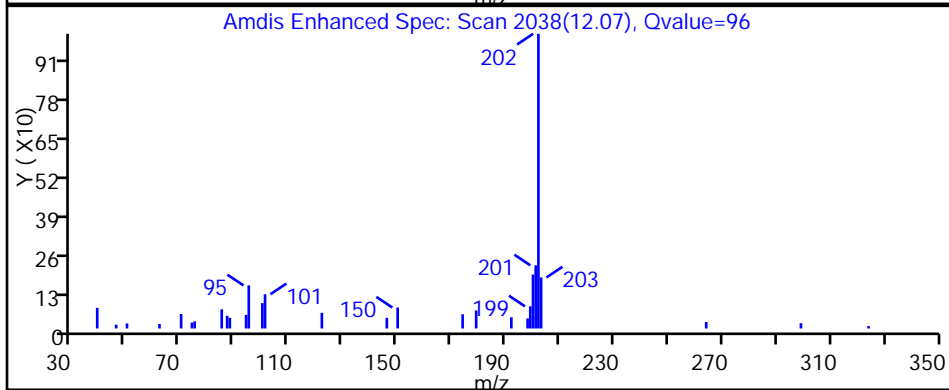
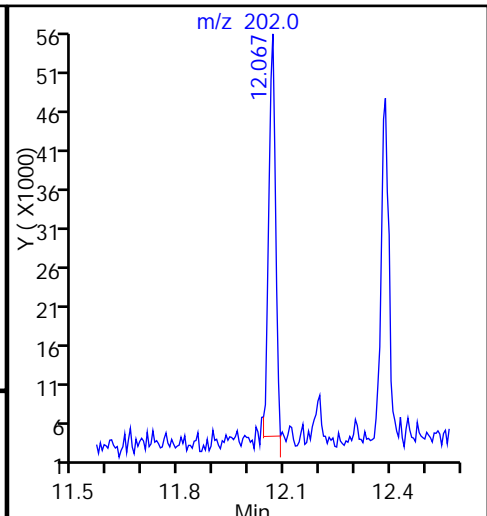
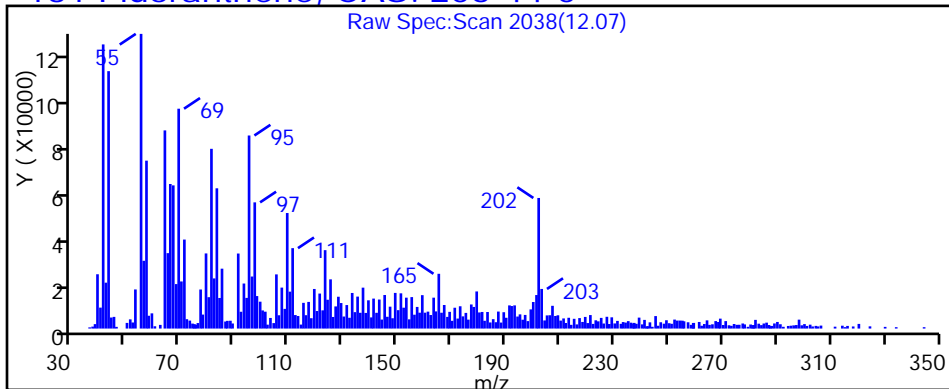
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**131 Fluoranthene, CAS: 206-44-0**



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

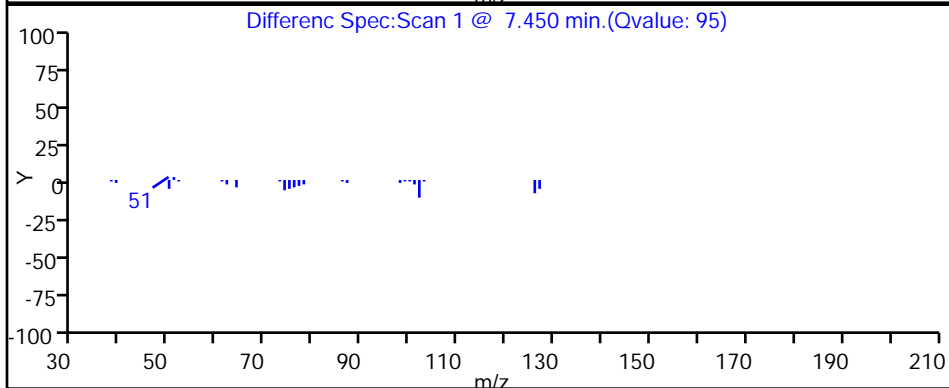
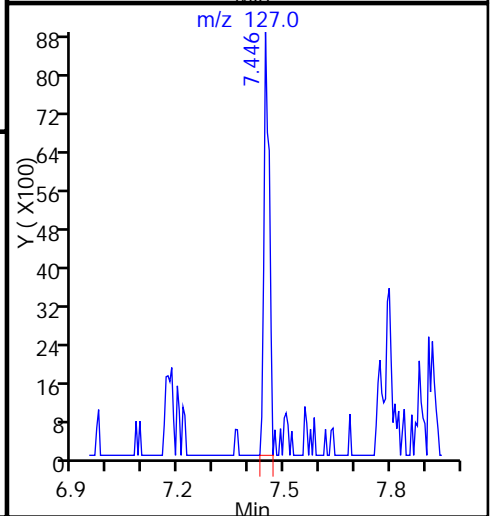
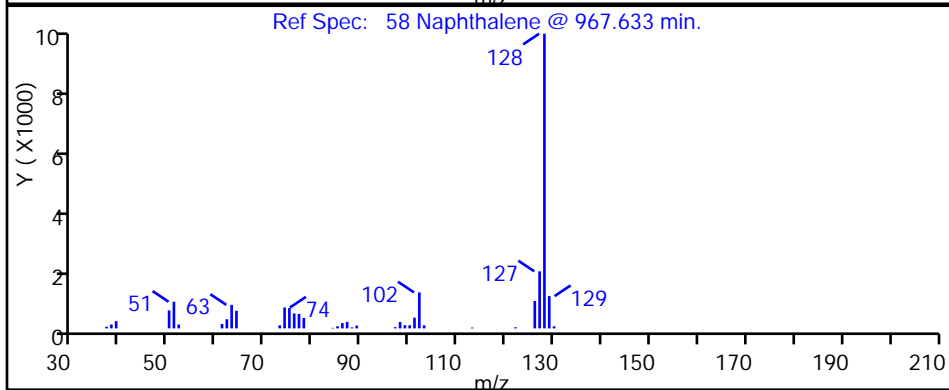
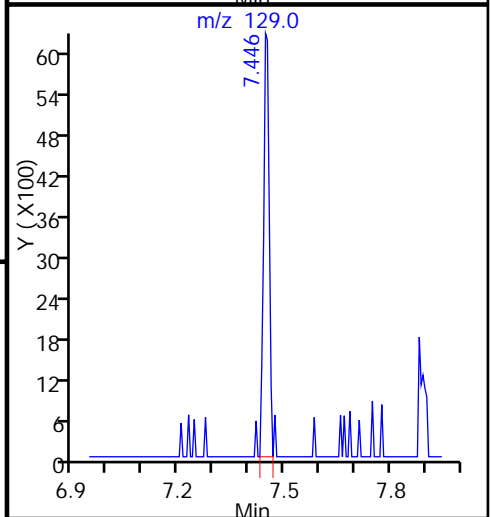
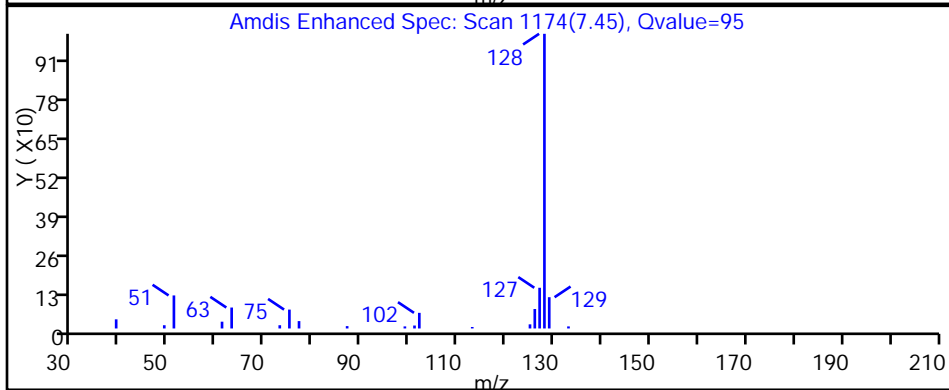
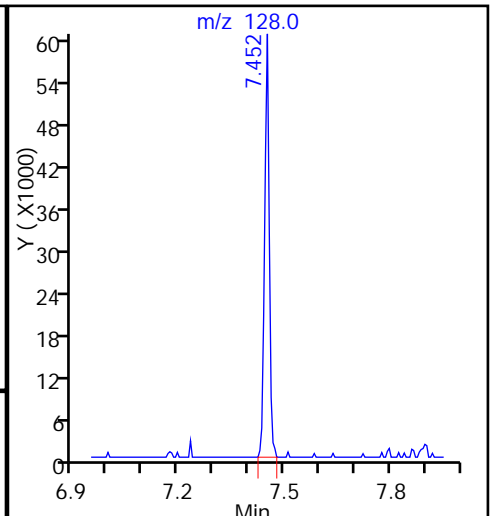
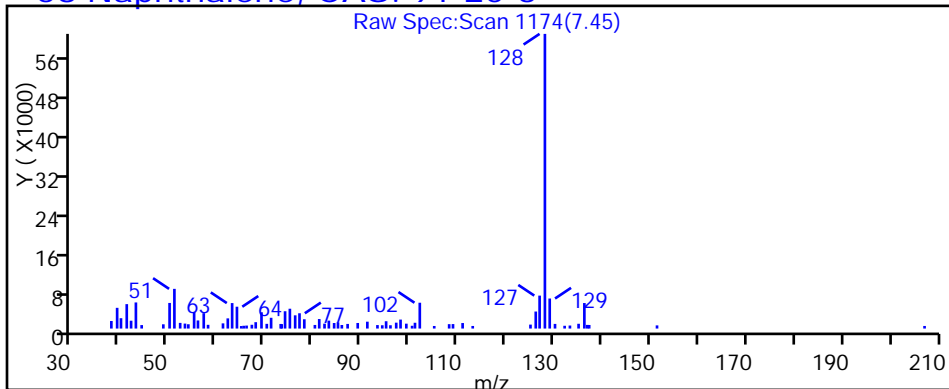
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**58 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

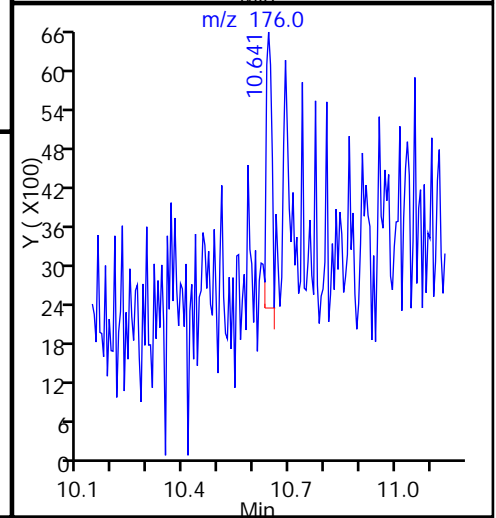
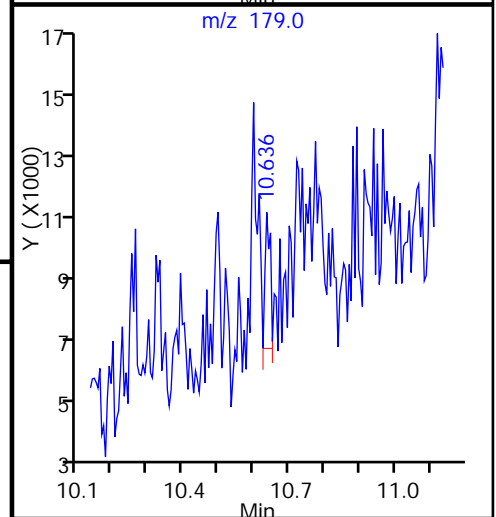
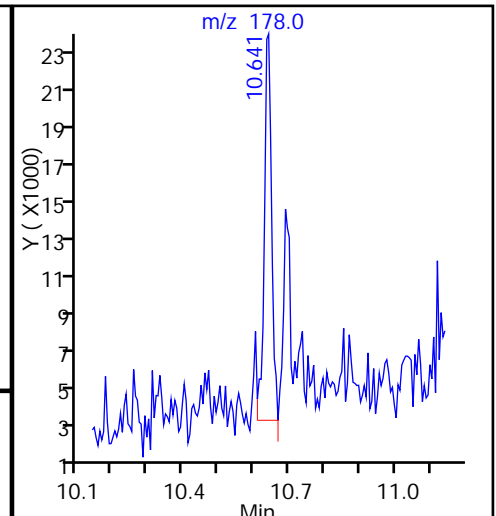
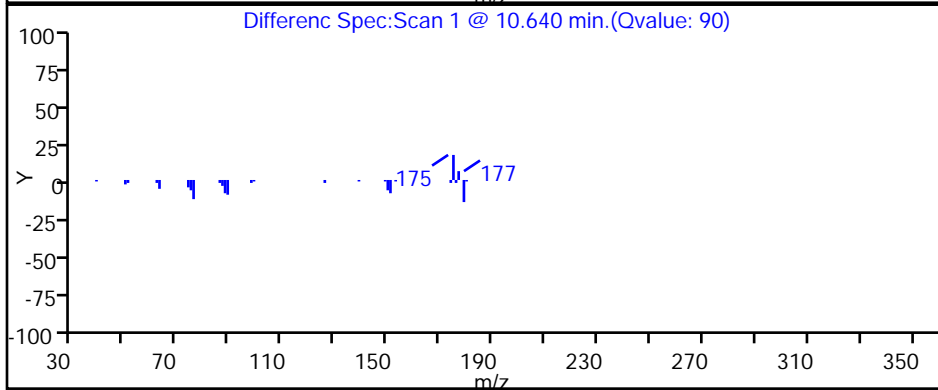
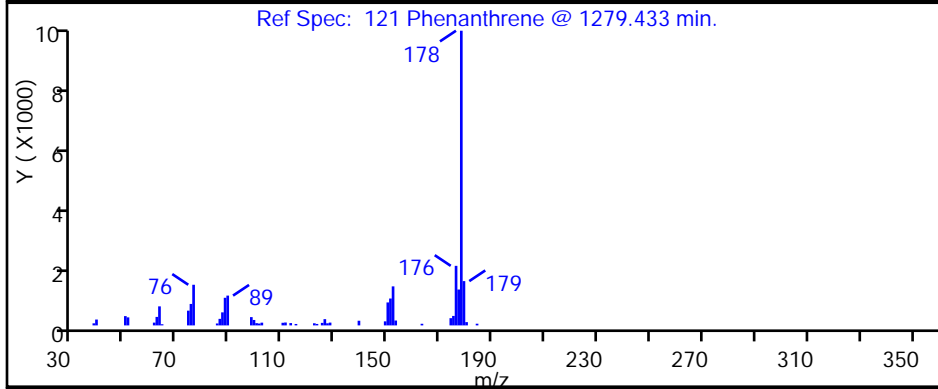
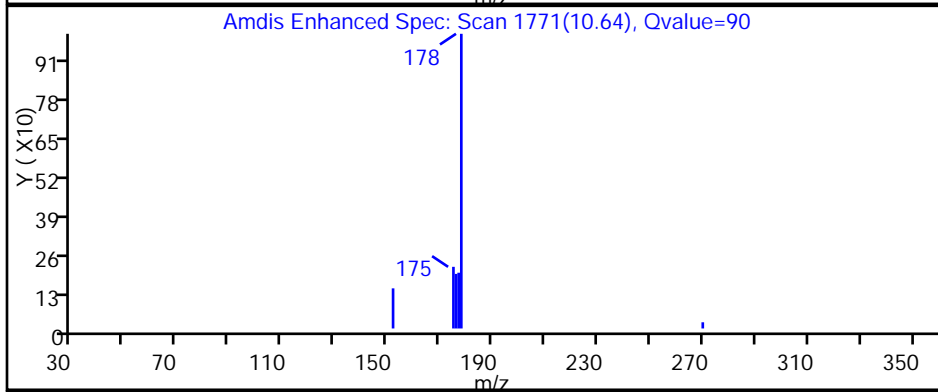
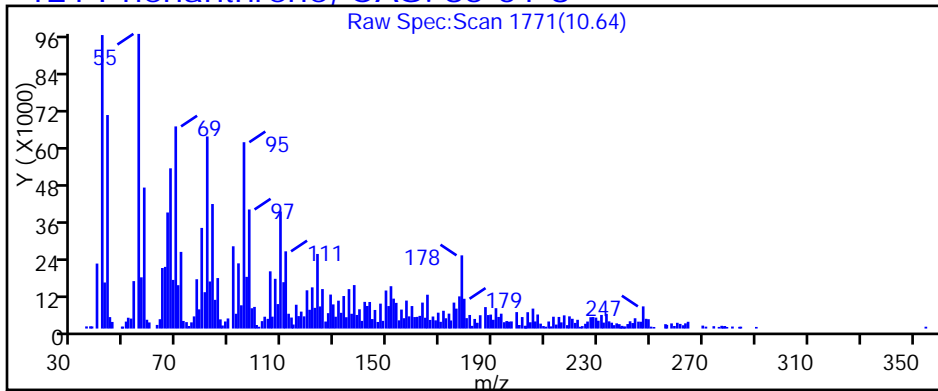
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**121 Phenanthrene, CAS: 85-01-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031026.D

Injection Date: 31-Oct-2014 21:30:30

Instrument ID: CH732

Lims ID: 180-37750-C-5-A

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 003200

ALS Bottle#: 25

Worklist Smp#: 26

Injection Vol: 2.0 ul

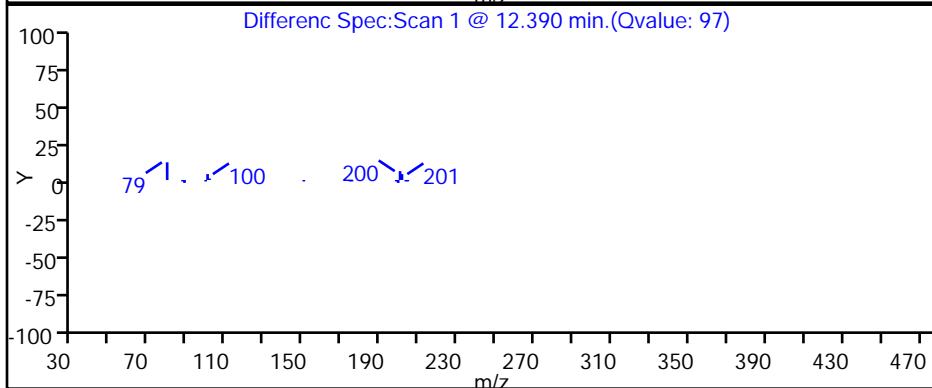
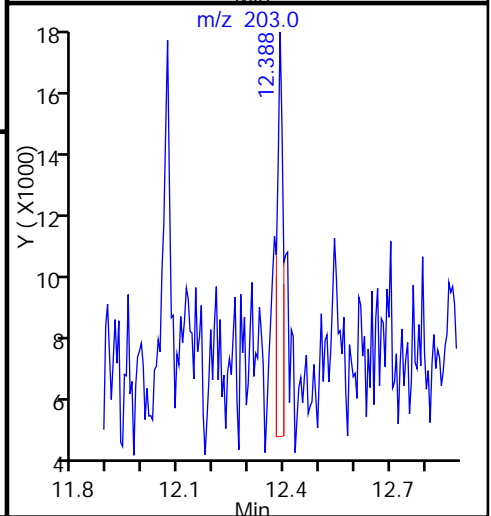
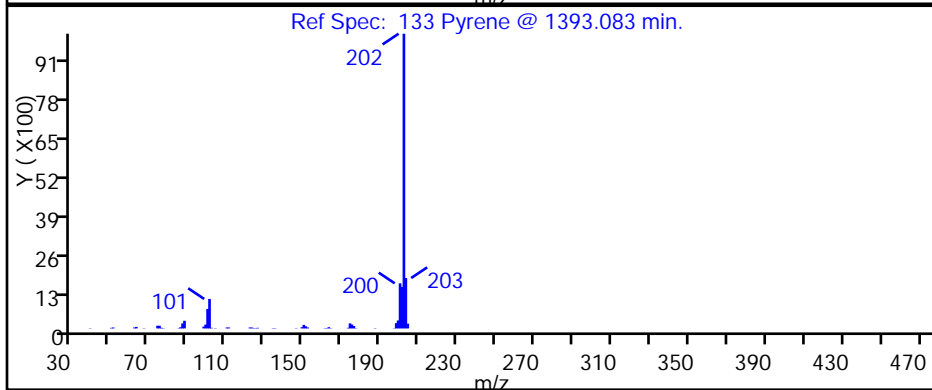
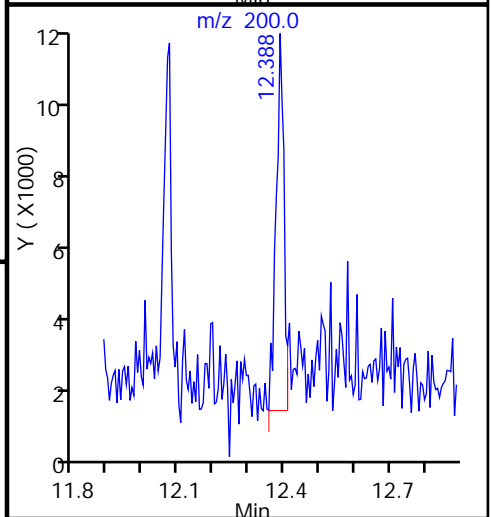
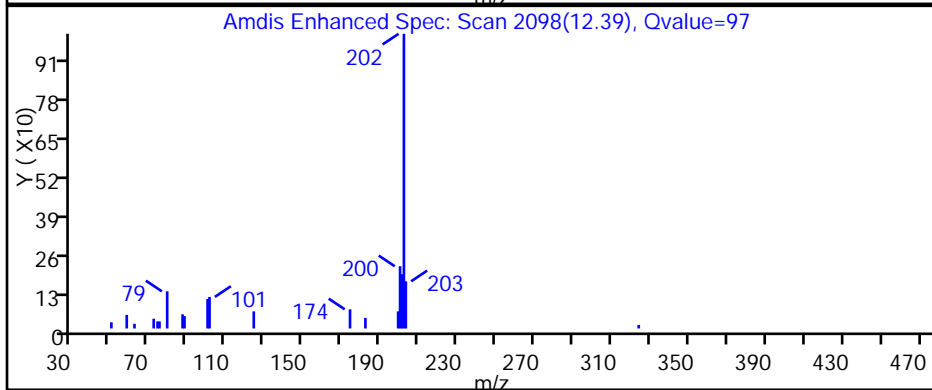
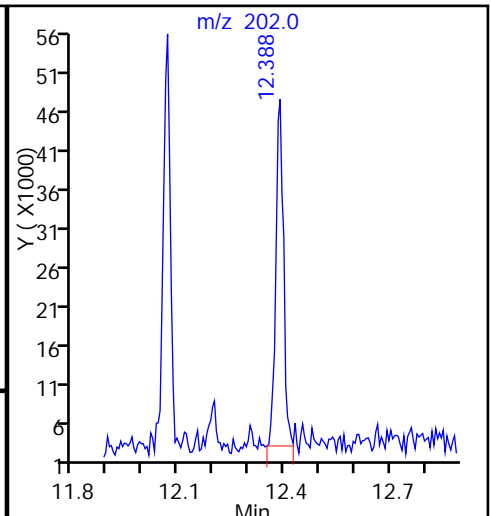
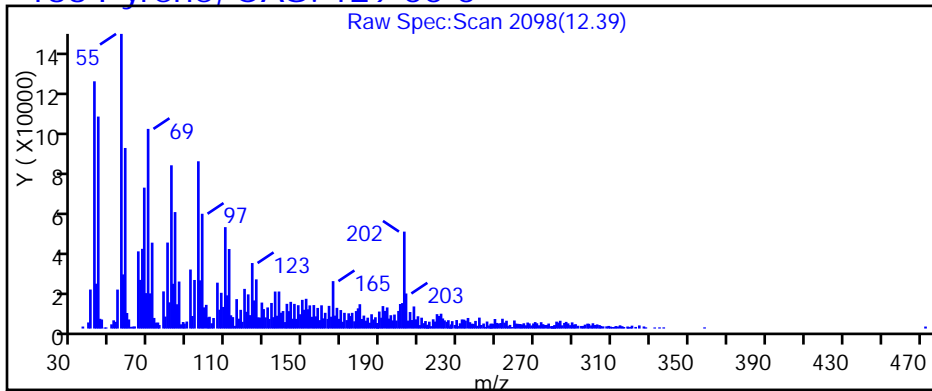
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**133 Pyrene, CAS: 129-00-0**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B02-FD</u>	Lab Sample ID: <u>180-37750-6</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031027.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:10</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/31/2014 21:56</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>72.9</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		310	30
208-96-8	Acenaphthylene	ND		310	35
120-12-7	Anthracene	ND		310	30
92-87-5	Benzidine	ND		31000	6400
56-55-3	Benzo[a]anthracene	210	J	310	39
205-99-2	Benzo[b]fluoranthene	ND		310	48
207-08-9	Benzo[k]fluoranthene	ND		310	62
65-85-0	Benzoic acid	ND	*	7800	640
191-24-2	Benzo[g,h,i]perylene	ND		310	31
50-32-8	Benzo[a]pyrene	380		310	31
111-91-1	Bis(2-chloroethoxy)methane	ND		1500	100
111-44-4	Bis(2-chloroethyl)ether	ND		310	41
117-81-7	Bis(2-ethylhexyl) phthalate	ND		3100	250
108-60-1	2,2'-oxybis[1-chloropropane]	ND		310	33
101-55-3	4-Bromophenyl phenyl ether	ND		1500	130
7005-72-3	4-Chlorophenyl phenyl ether	ND		1500	170
91-58-7	2-Chloronaphthalene	ND		310	32
85-68-7	Butyl benzyl phthalate	ND		1500	210
218-01-9	Chrysene	260	J	310	37
53-70-3	Dibenz(a,h)anthracene	ND		310	34
84-74-2	Di-n-butyl phthalate	ND		1500	190
117-84-0	Di-n-octyl phthalate	ND		1500	160
84-66-2	Diethyl phthalate	ND		1500	170
131-11-3	Dimethyl phthalate	ND		1500	170
91-94-1	3,3'-Dichlorobenzidine	ND		1500	160
121-14-2	2,4-Dinitrotoluene	ND		1500	120
606-20-2	2,6-Dinitrotoluene	ND		1500	160
95-57-8	2-Chlorophenol	ND		1500	130
120-83-2	2,4-Dichlorophenol	ND		310	31
105-67-9	2,4-Dimethylphenol	ND		1500	240
51-28-5	2,4-Dinitrophenol	ND		7800	1800
88-75-5	2-Nitrophenol	ND		1500	170
88-06-2	2,4,6-Trichlorophenol	ND		1500	230
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		1500	200

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B02-FD</u>	Lab Sample ID: <u>180-37750-6</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031027.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:10</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/31/2014 21:56</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>72.9</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		1500	85
59-50-7	4-Chloro-3-methylphenol	ND		1500	140
100-02-7	4-Nitrophenol	ND		7800	560
534-52-1	4,6-Dinitro-2-methylphenol	ND		7800	620
206-44-0	Fluoranthene	430		310	33
86-73-7	Fluorene	ND		310	41
118-74-1	Hexachlorobenzene	ND		310	33
87-68-3	Hexachlorobutadiene	ND		310	34
77-47-4	Hexachlorocyclopentadiene	ND		1500	170
67-72-1	Hexachloroethane	ND		1500	110
193-39-5	Indeno[1,2,3-cd]pyrene	ND		310	32
78-59-1	Isophorone	ND		1500	120
91-20-3	Naphthalene	330		310	26
98-95-3	Nitrobenzene	ND		3100	130
621-64-7	N-Nitrosodi-n-propylamine	ND		310	36
62-75-9	N-Nitrosodimethylamine	ND		1500	130
86-30-6	N-Nitrosodiphenylamine	ND		1500	140
85-01-8	Phenanthrene	ND		310	49
129-00-0	Pyrene	440		310	31
87-86-5	Pentachlorophenol	ND		1500	140
108-95-2	Phenol	ND		310	36

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	0	X D	21-116
321-60-8	2-Fluorobiphenyl	0	X D	28-108
367-12-4	2-Fluorophenol (Surr)	0	X D	28-107
4165-60-0	Nitrobenzene-d5 (Surr)	0	X D	27-110
4165-62-2	Phenol-d5 (Surr)	0	X D	30-112
1718-51-0	Terphenyl-d14 (Surr)	0	X D	21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D  
 Lims ID: 180-37750-A-6-A Lab Sample ID: 180-37750-6  
 Client ID: SD-B02-FD  
 Sample Type: Client  
 Inject. Date: 31-Oct-2014 21:56:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Injection Vol: 2.0 ul Dil. Factor: 25.0000  
 Sample Info: 180-0004118-027  
 Misc. Info.: 180-37750-A-6-A  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 01-Nov-2014 12:44:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.126	6.137	-0.011	97	251845	8.00	
* 2 Naphthalene-d8	136	7.430	7.435	-0.005	100	975885	8.00	
* 3 Acenaphthene-d10	164	9.161	9.150	0.011	93	549087	8.00	
* 4 Phenanthrene-d10	188	10.614	10.603	0.011	98	860365	8.00	
* 5 Chrysene-d12	240	14.418	14.380	0.038	96	787260	8.00	
* 6 Perylene-d12	264	17.345	17.281	0.064	97	752927	8.00	
\$ 7 2-Fluorophenol	112		4.684				ND	
\$ 8 Phenol-d5	99		5.763				ND	
\$ 9 Nitrobenzene-d5	82		6.703				ND	
\$ 10 2-Fluorobiphenyl	172		8.477				ND	
\$ 11 2,4,6-Tribromophenol	330		9.914				ND	
\$ 12 Terphenyl-d14	244		12.537				ND	
14 N-Nitrosodimethylamine	74		2.082				ND	
26 Phenol	94		5.779				ND	
29 Bis(2-chloroethyl)ether	93		5.854				ND	
30 2-Chlorophenol	128		5.918				ND	
38 2,2'-oxybis[1-chloropropan	45		6.426				ND	
41 N-Nitrosodi-n-propylamine	70		6.549				ND	
45 Hexachloroethane	117		6.666				ND	
46 Nitrobenzene	77		6.725				ND	
48 Isophorone	82		6.960				ND	
49 2-Nitrophenol	139		7.051				ND	
50 2,4-Dimethylphenol	107		7.088				ND	
52 Benzoic acid	122		7.147				ND	
53 Bis(2-chloroethoxy)methane	93		7.174				ND	
54 2,4-Dichlorophenol	162		7.291				ND	
56 1,2,4-Trichlorobenzene	180		7.377				ND	
58 Naphthalene	128	7.451	7.457	-0.006	95	56183	0.4307	
62 Hexachlorobutadiene	225		7.580				ND	
67 4-Chloro-3-methylphenol	107		7.964				ND	
72 Hexachlorocyclopentadiene	237		8.290				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 2,4,6-Trichlorophenol	196		8.402				ND	
77 2-Chloronaphthalene	162		8.611				ND	
82 Dimethyl phthalate	163		8.856				ND	
84 2,6-Dinitrotoluene	165		8.921				ND	
85 Acenaphthylene	152		9.017				ND	
88 Acenaphthene	153		9.182				ND	
87 2,4-Dinitrophenol	184		9.188				ND	
89 4-Nitrophenol	109		9.236				ND	
91 2,4-Dinitrotoluene	165		9.310				ND	
98 Diethyl phthalate	149		9.524				ND	
100 4-Chlorophenyl phenyl ethe	204		9.663				ND	
103 Fluorene	166		9.679				ND	
104 4,6-Dinitro-2-methylphenol	198		9.711				ND	
105 N-Nitrosodiphenylamine	169		9.770				ND	
90 1,2-Diphenylhydrazine	77		9.813				ND	
110 4-Bromophenyl phenyl ether	248		10.133				ND	
112 Hexachlorobenzene	284		10.224				ND	
116 Pentachlorophenol	266		10.400				ND	
121 Phenanthrene	178		10.630				ND	
122 Anthracene	178		10.683				ND	
126 Di-n-butyl phthalate	149		11.159				ND	
131 Fluoranthene	202	12.062	12.035	0.027	96	72797	0.5575	
132 Benzidine	184		12.185				ND	
133 Pyrene	202	12.393	12.361	0.032	97	72558	0.5712	
138 Butyl benzyl phthalate	149		13.290				ND	
144 3,3'-Dichlorobenzidine	252		14.289				ND	
145 Bis(2-ethylhexyl) phthalat	149		14.338				ND	
146 Benzo[a]anthracene	228	14.402	14.359	0.043	87	31779	0.2735	
147 Chrysene	228	14.460	14.434	0.026	48	37282	0.3347	
150 Di-n-octyl phthalate	149		15.641				ND	
152 Benzo[b]fluoranthene	252		16.506				ND	
153 Benzo[k]fluoranthene	252		16.565				ND	
154 Benzo[a]pyrene	252	17.222	17.169	0.053	51	55159	0.4943	
157 Indeno[1,2,3-cd]pyrene	276		19.658				ND	
158 Dibenz(a,h)anthracene	278		19.696				ND	
159 Benzo[g,h,i]perylene	276		20.348				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Worklist Smp#: 27

Client ID: SD-B02-FD

Injection Vol: 2.0 ul

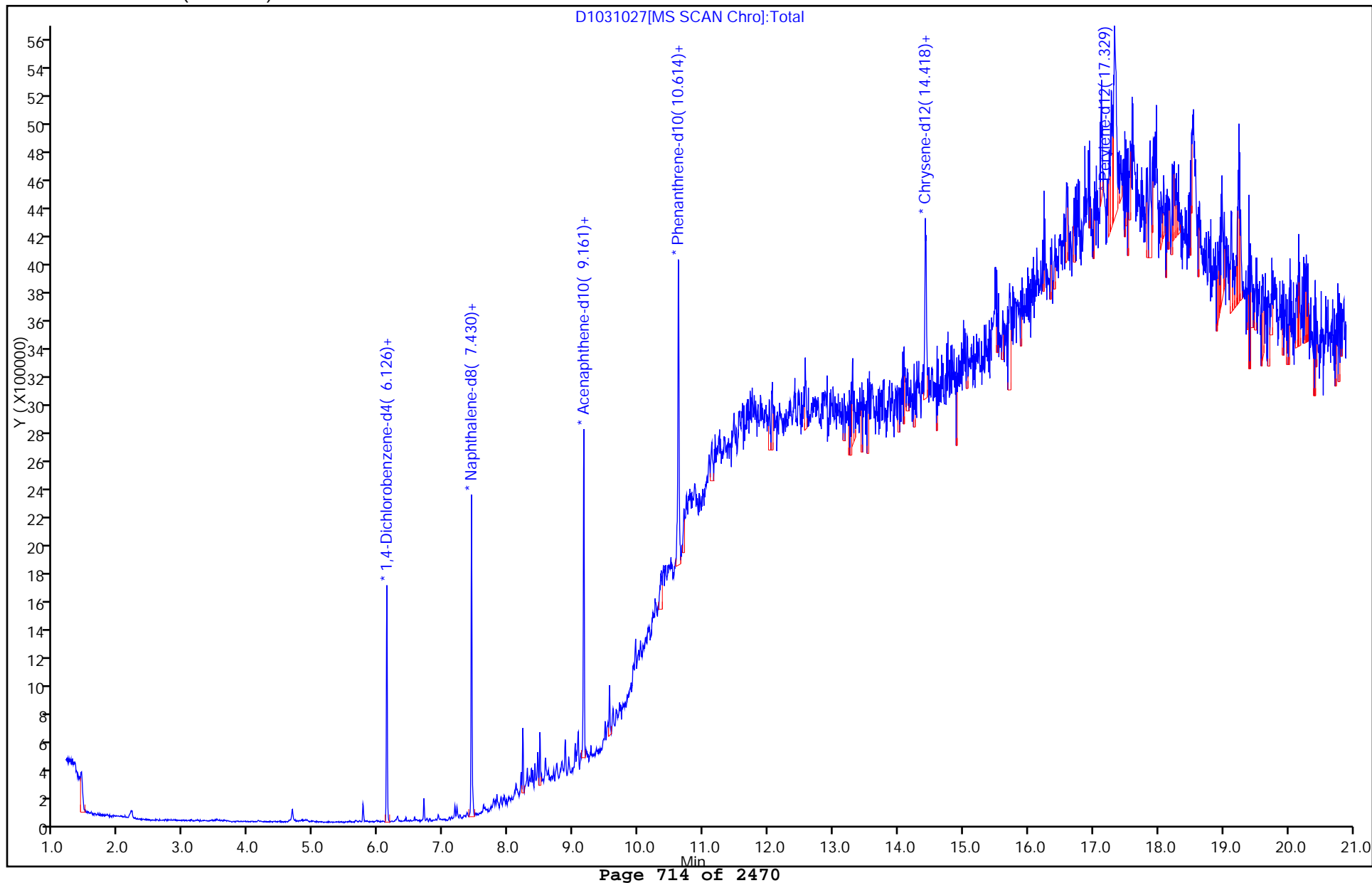
Dil. Factor: 25.0000

ALS Bottle#: 26

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)





## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

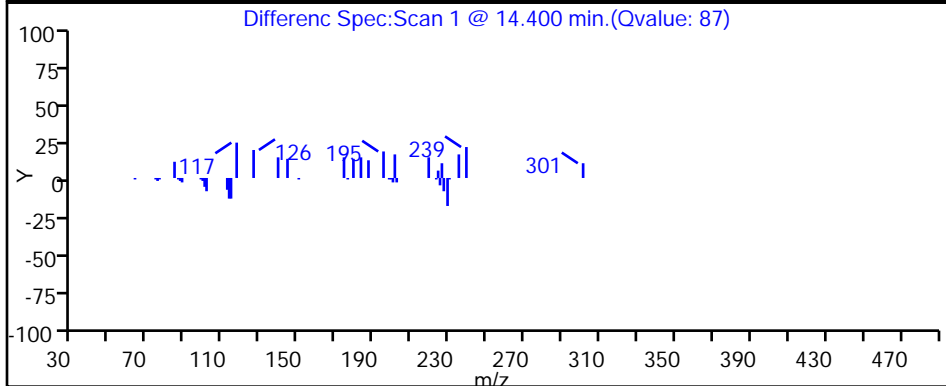
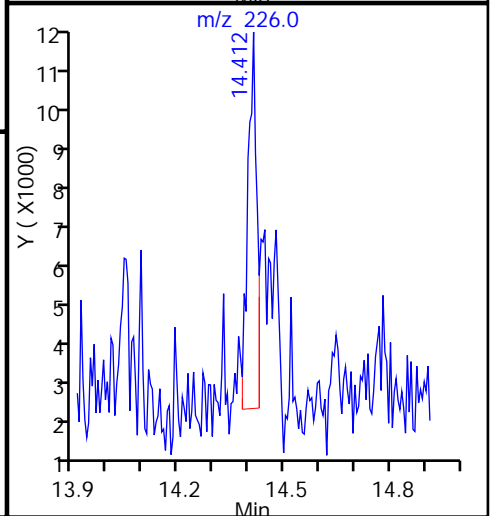
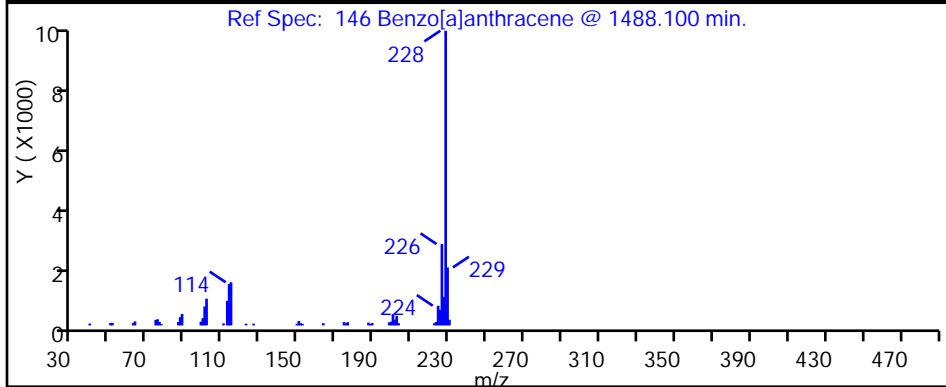
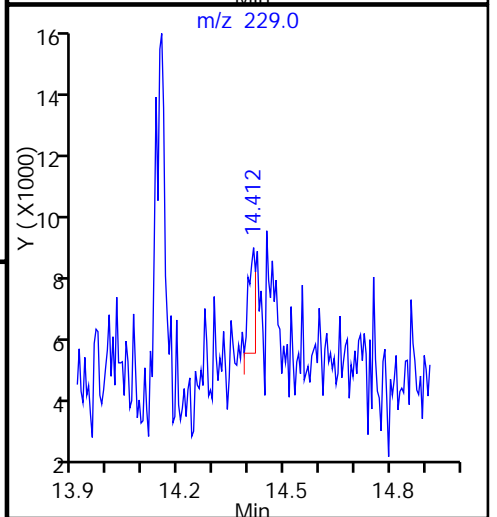
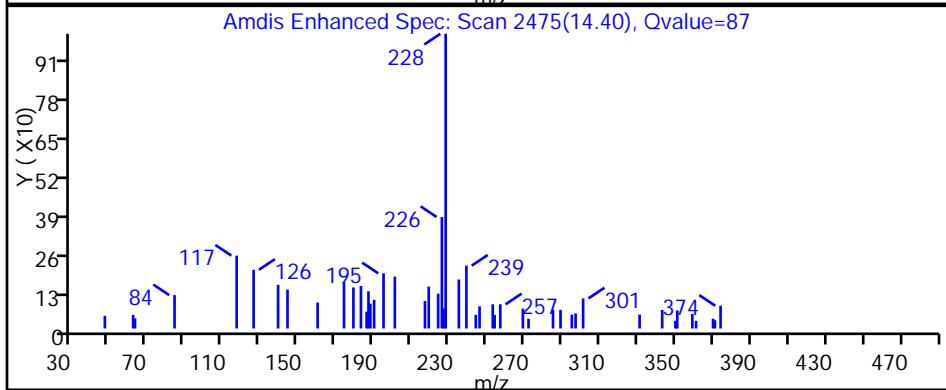
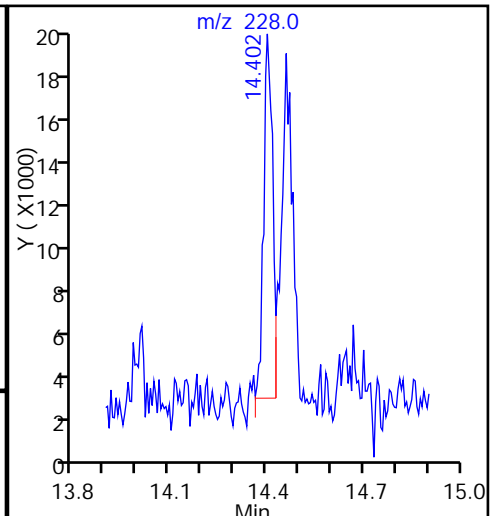
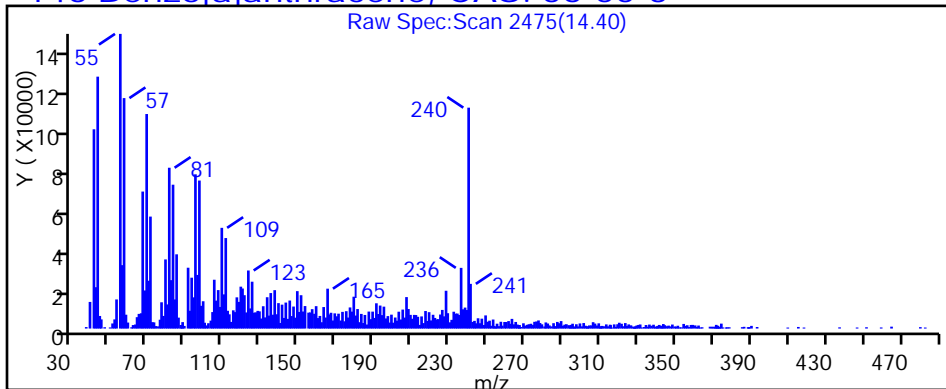
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**146 Benzo[a]anthracene, CAS: 56-55-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

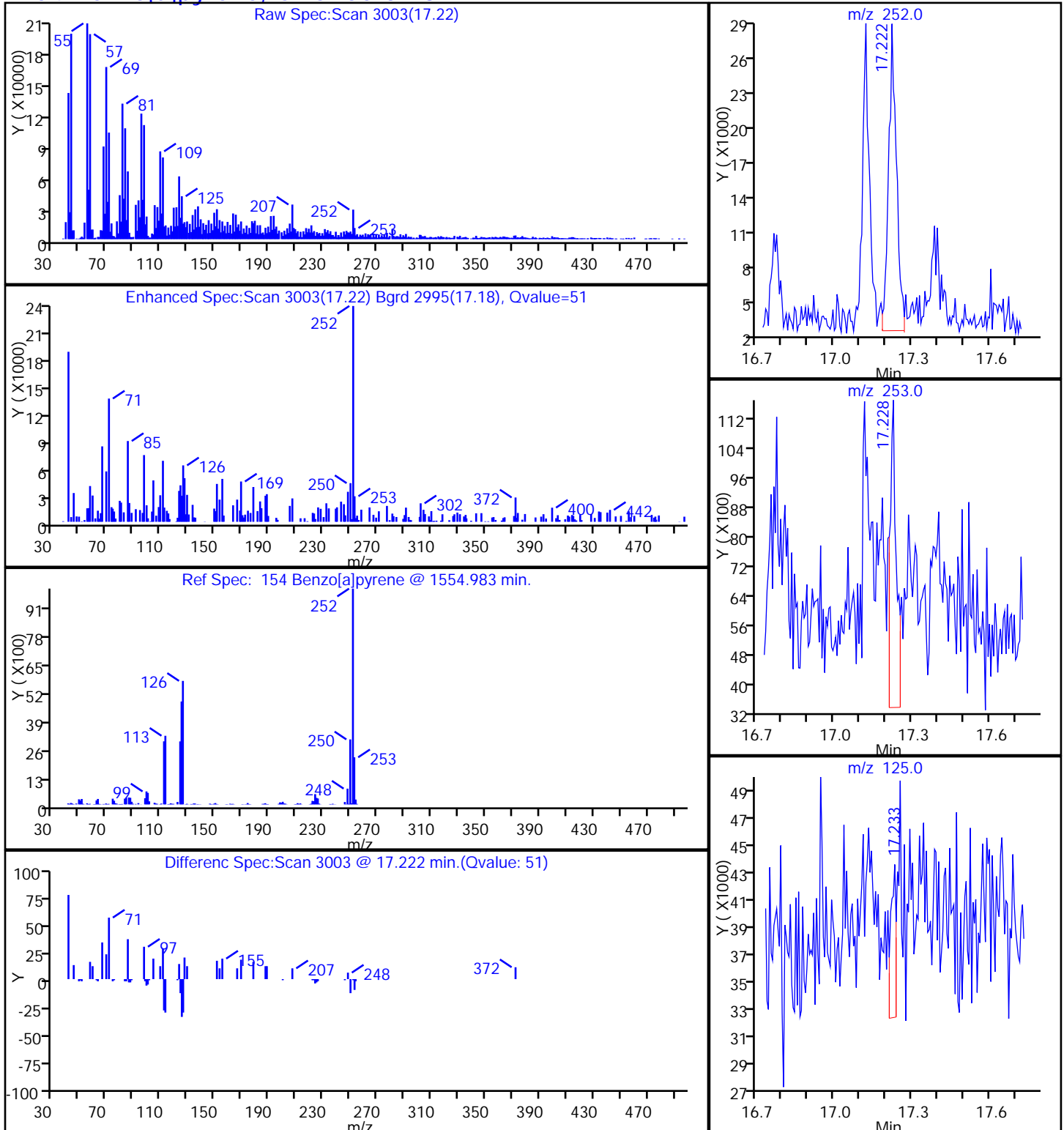
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**154 Benzo[a]pyrene, CAS: 50-32-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

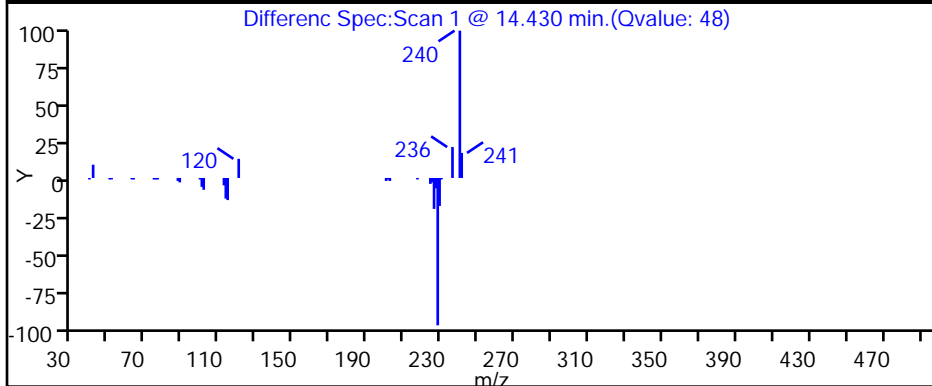
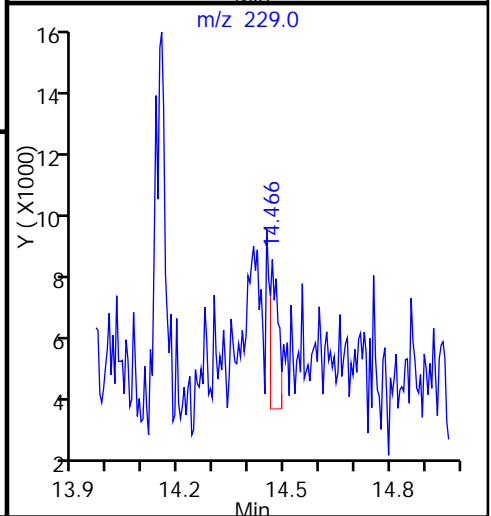
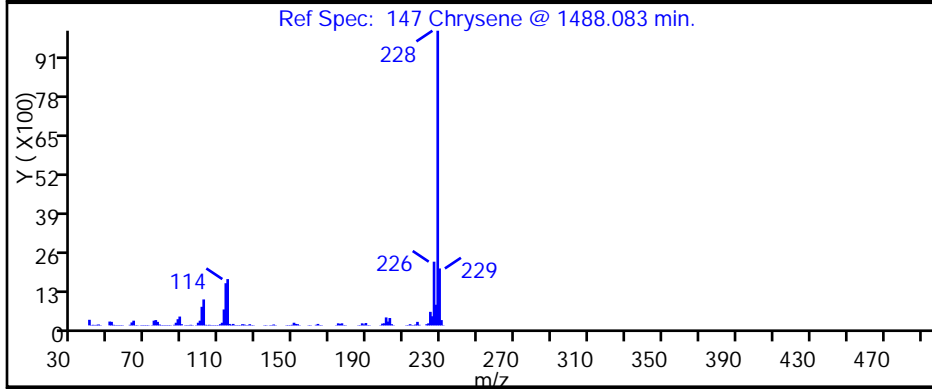
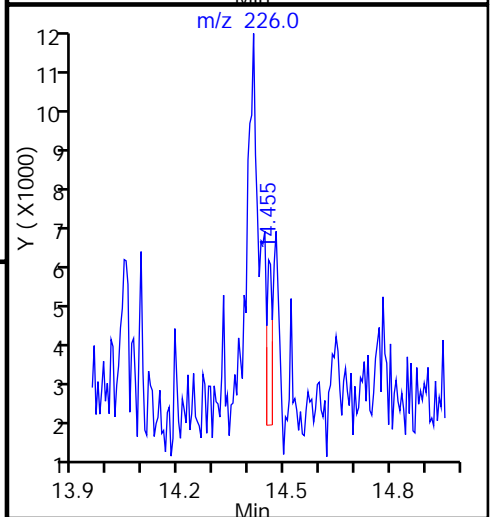
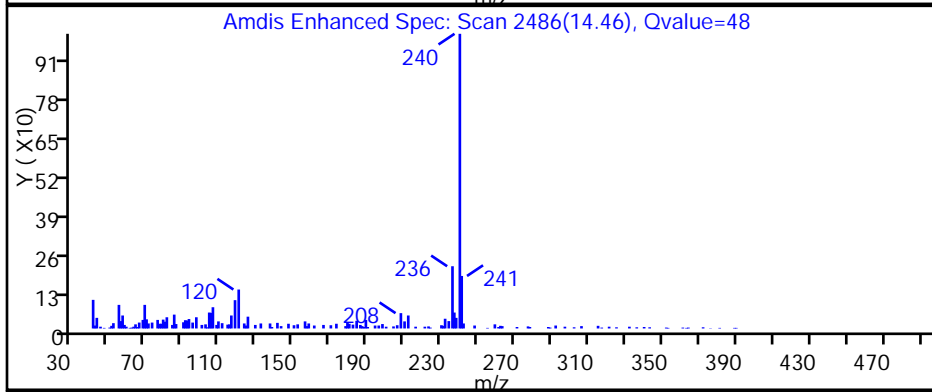
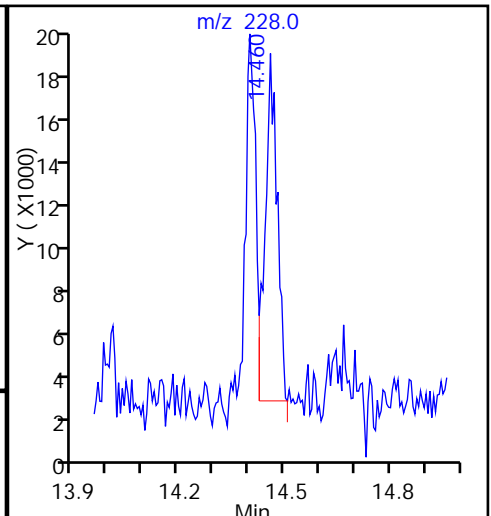
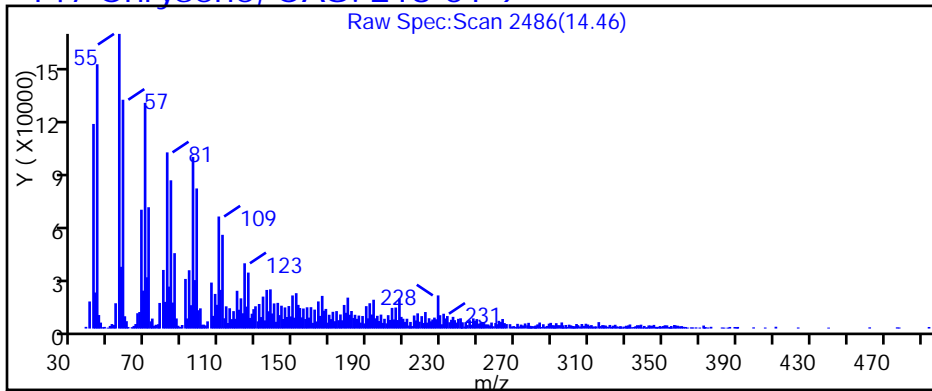
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**147 Chrysene, CAS: 218-01-9**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

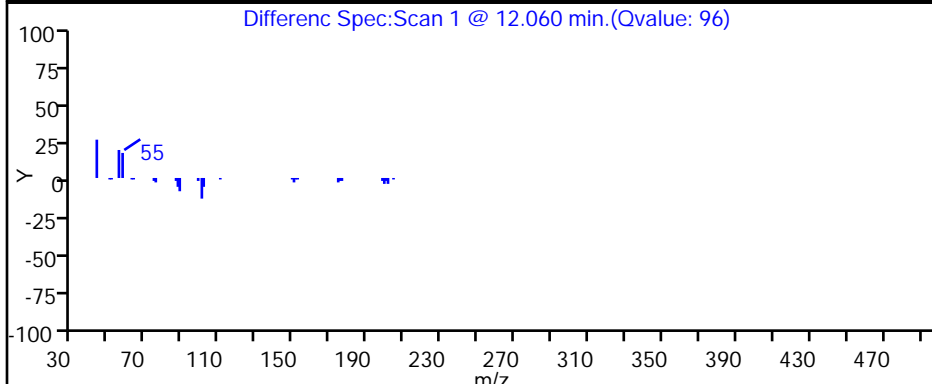
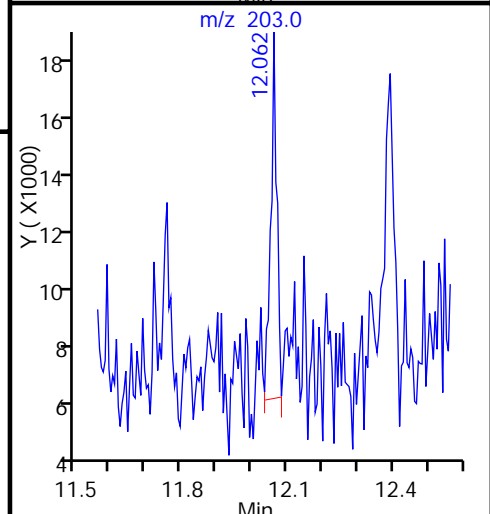
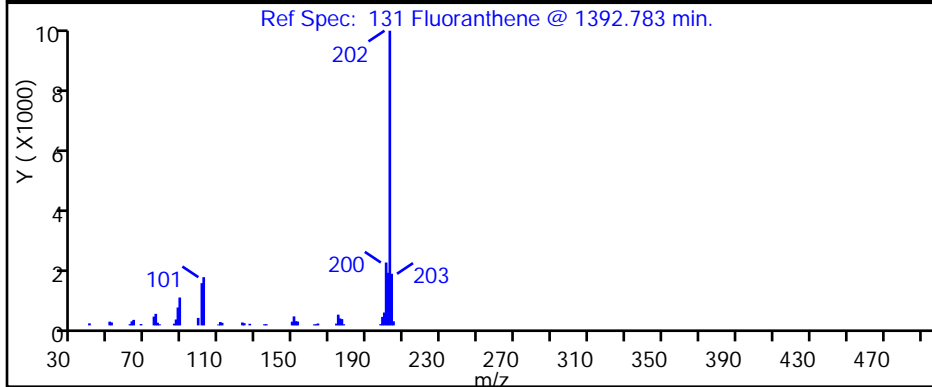
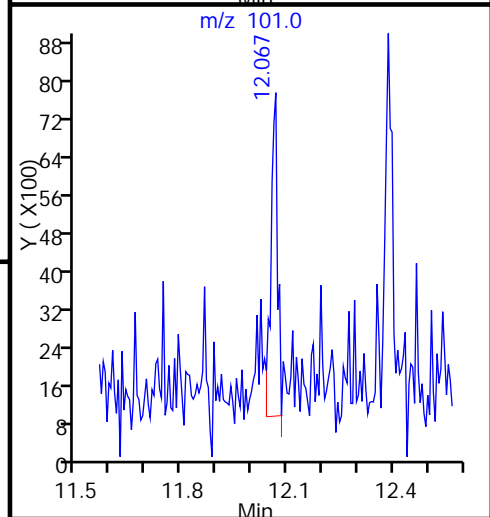
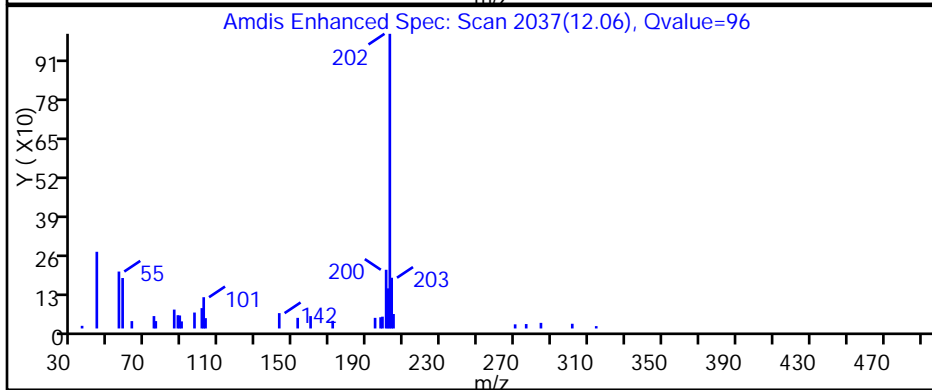
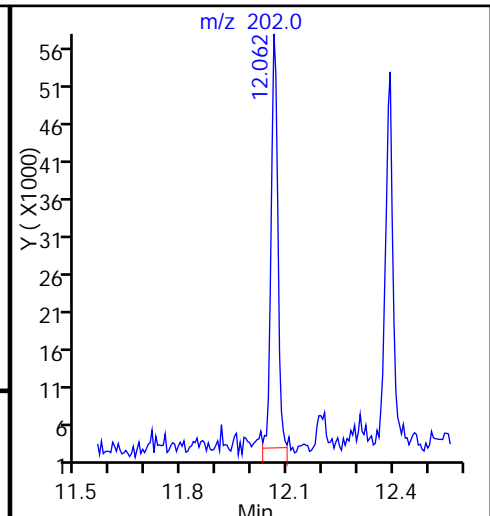
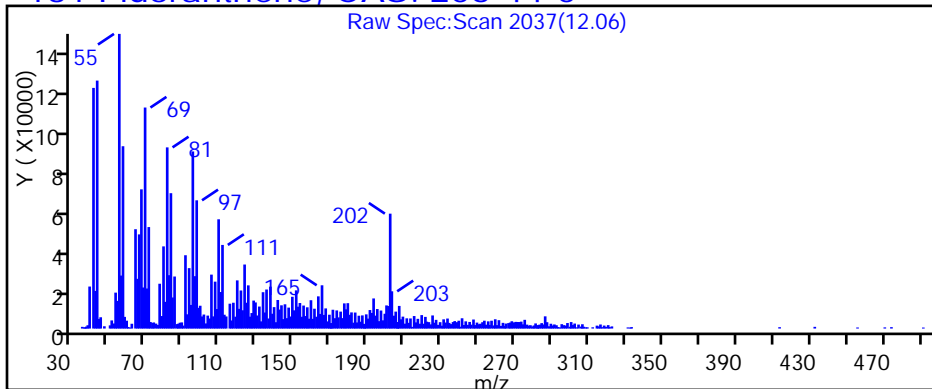
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**131 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

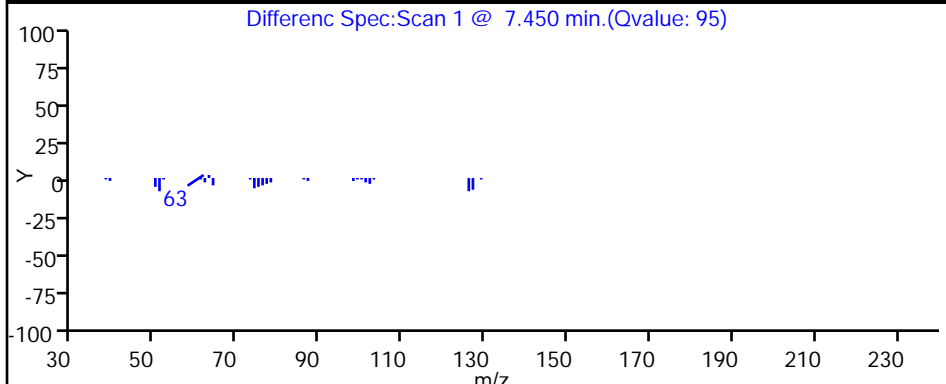
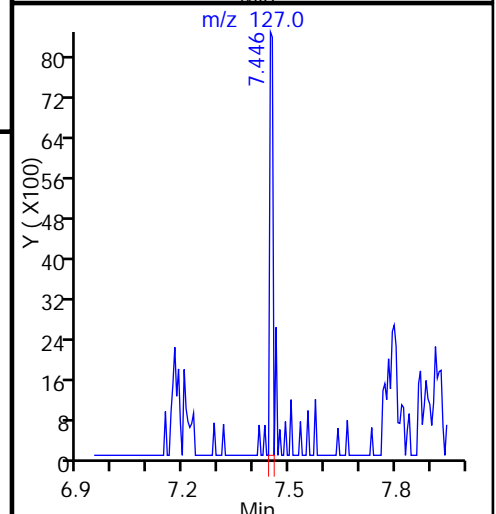
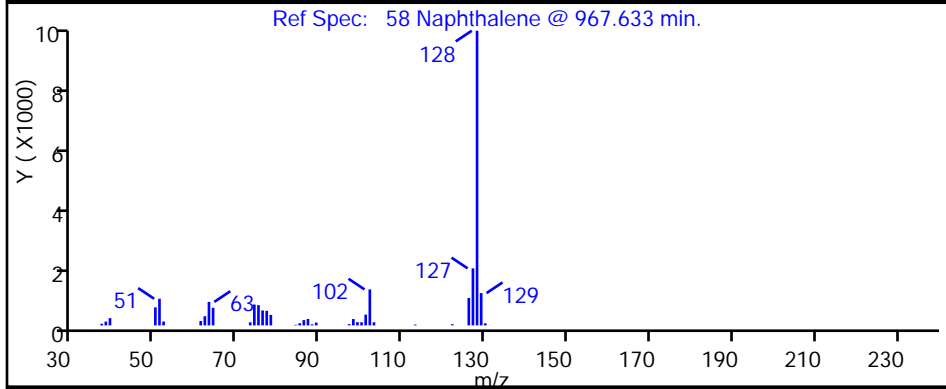
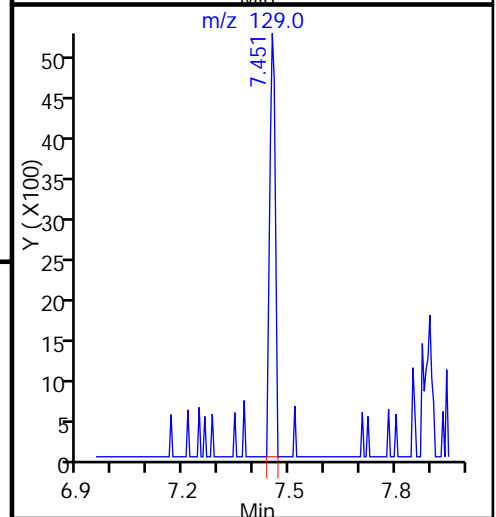
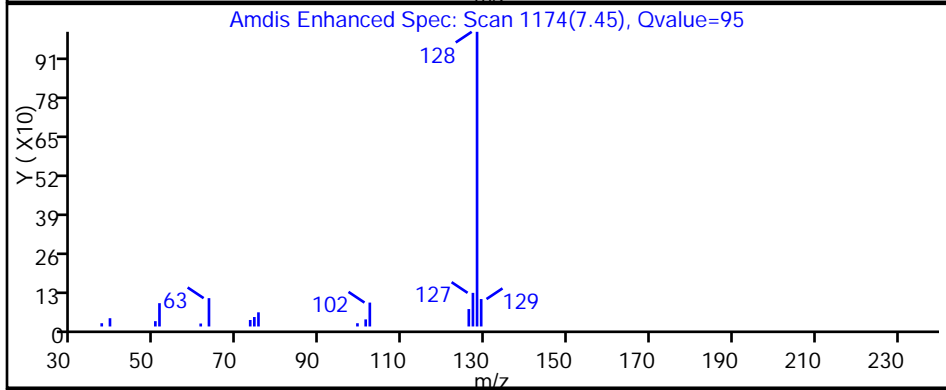
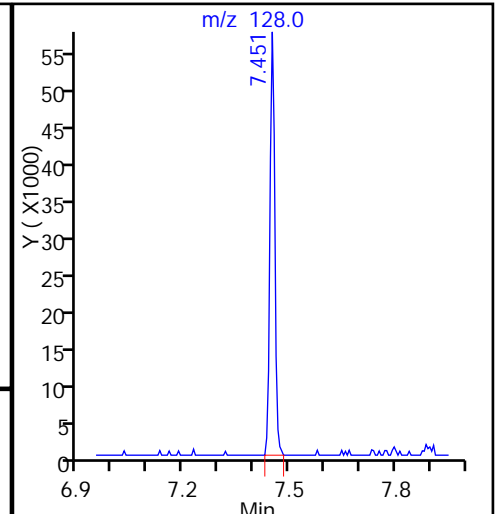
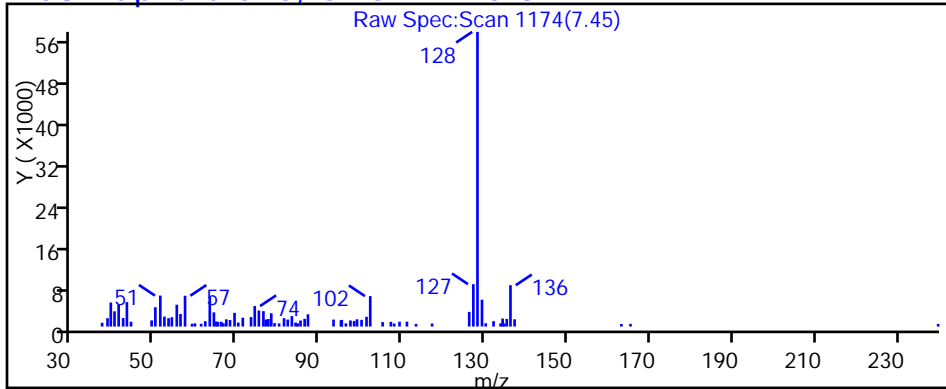
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**58 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031027.D

Injection Date: 31-Oct-2014 21:56:30

Instrument ID: CH732

Lims ID: 180-37750-A-6-A

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 003200

ALS Bottle#: 26

Worklist Smp#: 27

Injection Vol: 2.0 ul

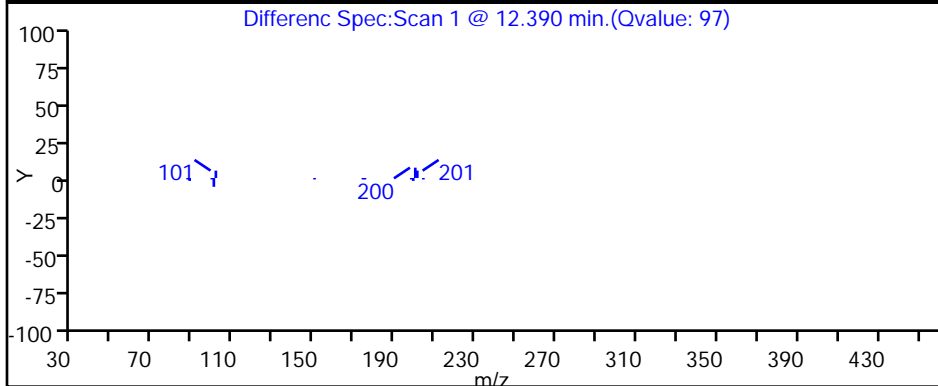
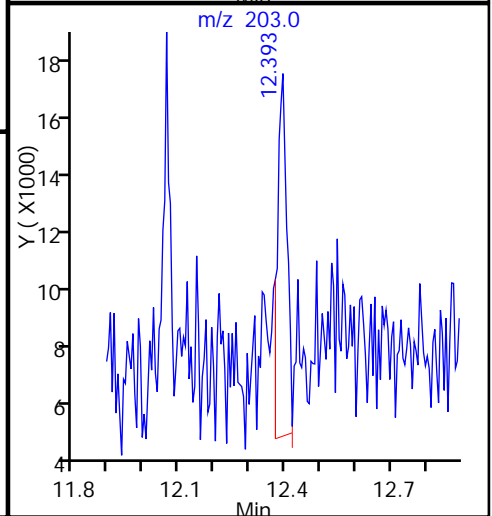
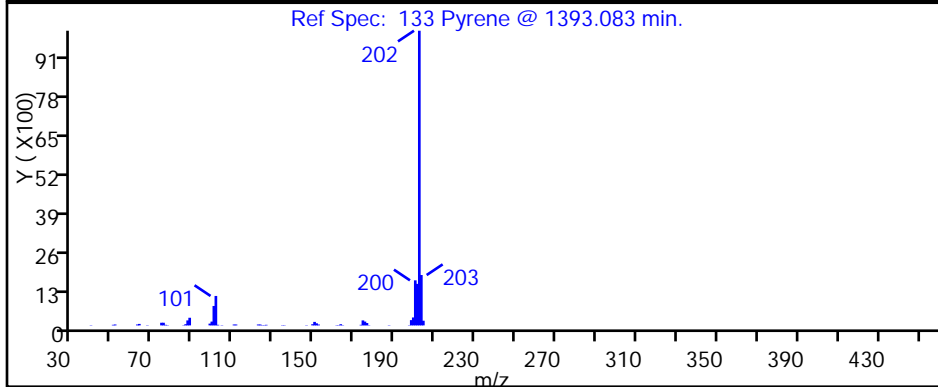
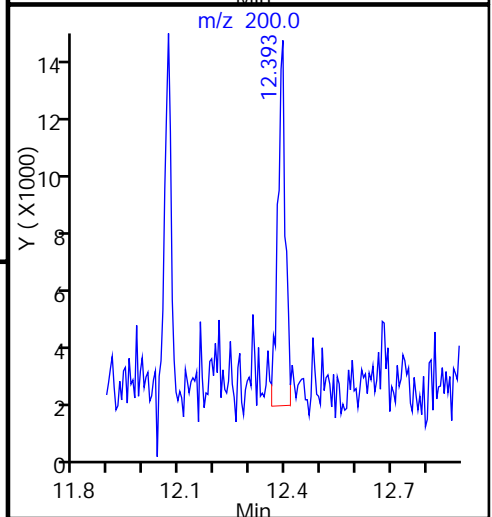
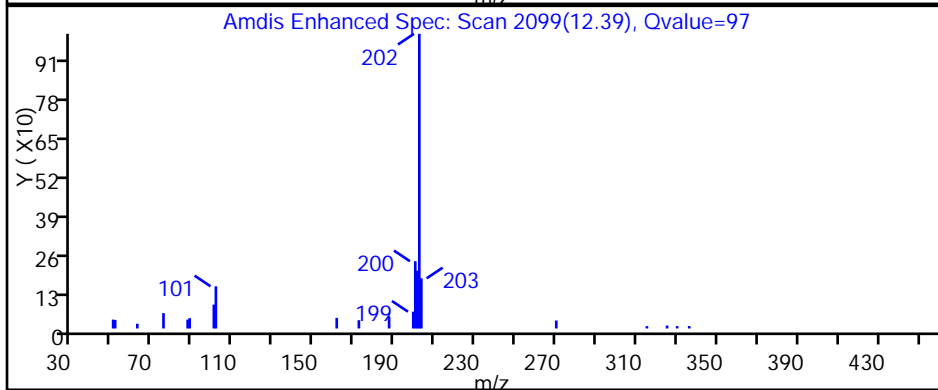
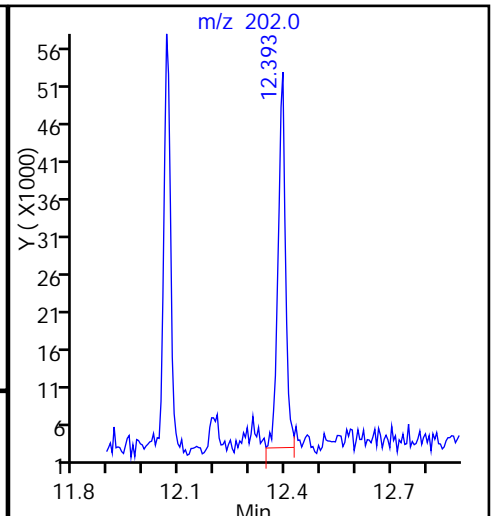
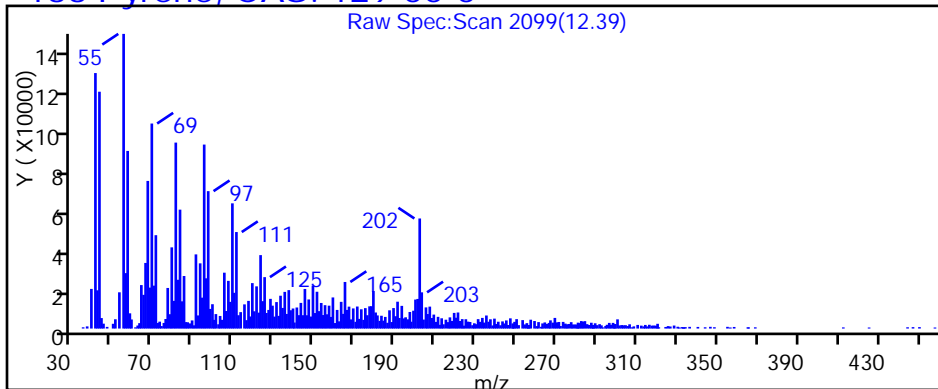
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**133 Pyrene, CAS: 129-00-0**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C01</u>	Lab Sample ID: <u>180-37750-7</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031028.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 15:30</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/31/2014 22:22</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>32.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		49	4.7
208-96-8	Acenaphthylene	ND		49	5.6
120-12-7	Anthracene	ND		49	4.8
92-87-5	Benzidine	ND		4900	1000
56-55-3	Benzo[a]anthracene	ND		49	6.1
205-99-2	Benzo[b]fluoranthene	ND		49	7.7
207-08-9	Benzo[k]fluoranthene	ND		49	9.9
65-85-0	Benzoic acid	ND	*	1200	100
191-24-2	Benzo[g,h,i]perylene	ND		49	4.9
50-32-8	Benzo[a]pyrene	ND		49	4.9
111-91-1	Bis(2-chloroethoxy)methane	ND		240	16
111-44-4	Bis(2-chloroethyl)ether	ND		49	6.6
117-81-7	Bis(2-ethylhexyl) phthalate	ND		490	39
108-60-1	2,2'-oxybis[1-chloropropane]	ND		49	5.3
101-55-3	4-Bromophenyl phenyl ether	ND		240	21
7005-72-3	4-Chlorophenyl phenyl ether	ND		240	27
91-58-7	2-Chloronaphthalene	ND		49	5.1
85-68-7	Butyl benzyl phthalate	ND		240	33
218-01-9	Chrysene	ND		49	5.8
53-70-3	Dibenz(a,h)anthracene	ND		49	5.4
84-74-2	Di-n-butyl phthalate	ND		240	31
117-84-0	Di-n-octyl phthalate	ND		240	26
84-66-2	Diethyl phthalate	ND		240	27
131-11-3	Dimethyl phthalate	ND		240	27
91-94-1	3,3'-Dichlorobenzidine	ND		240	26
121-14-2	2,4-Dinitrotoluene	ND		240	20
606-20-2	2,6-Dinitrotoluene	ND		240	25
95-57-8	2-Chlorophenol	ND		240	20
120-83-2	2,4-Dichlorophenol	ND		49	4.9
105-67-9	2,4-Dimethylphenol	ND		240	38
51-28-5	2,4-Dinitrophenol	ND		1200	290
88-75-5	2-Nitrophenol	ND		240	27
88-06-2	2,4,6-Trichlorophenol	ND		240	37
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		240	31

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C01</u>	Lab Sample ID: <u>180-37750-7</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031028.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 15:30</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/31/2014 22:22</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>32.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		240	14
59-50-7	4-Chloro-3-methylphenol	ND		240	22
100-02-7	4-Nitrophenol	ND		1200	89
534-52-1	4,6-Dinitro-2-methylphenol	ND		1200	98
206-44-0	Fluoranthene	ND		49	5.2
86-73-7	Fluorene	ND		49	6.4
118-74-1	Hexachlorobenzene	ND		49	5.2
87-68-3	Hexachlorobutadiene	ND		49	5.5
77-47-4	Hexachlorocyclopentadiene	ND		240	26
67-72-1	Hexachloroethane	ND		240	18
193-39-5	Indeno[1,2,3-cd]pyrene	ND		49	5.0
78-59-1	Isophorone	ND		240	18
91-20-3	Naphthalene	7.9	J	49	4.2
98-95-3	Nitrobenzene	ND		490	20
621-64-7	N-Nitrosodi-n-propylamine	ND		49	5.7
62-75-9	N-Nitrosodimethylamine	ND		240	21
86-30-6	N-Nitrosodiphenylamine	ND		240	23
85-01-8	Phenanthrene	ND		49	7.8
129-00-0	Pyrene	ND		49	4.9
87-86-5	Pentachlorophenol	ND		240	22
108-95-2	Phenol	ND		49	5.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	40		21-116
321-60-8	2-Fluorobiphenyl	64		28-108
367-12-4	2-Fluorophenol (Surr)	57		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	71		27-110
4165-62-2	Phenol-d5 (Surr)	61		30-112
1718-51-0	Terphenyl-d14 (Surr)	79		21-130



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031028.D  
 Lims ID: 180-37750-A-7-A Lab Sample ID: 180-37750-7  
 Client ID: SD-C01  
 Sample Type: Client  
 Inject. Date: 31-Oct-2014 22:22:30 ALS Bottle#: 27 Worklist Smp#: 28  
 Injection Vol: 2.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004118-028  
 Misc. Info.: 180-37750-A-7-A  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 01-Nov-2014 12:44:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.127	6.137	-0.010	97	267582	8.00	
* 2 Naphthalene-d8	136	7.430	7.435	-0.005	100	1059290	8.00	
* 3 Acenaphthene-d10	164	9.161	9.150	0.011	93	636165	8.00	
* 4 Phenanthrene-d10	188	10.619	10.603	0.016	99	1035472	8.00	
* 5 Chrysene-d12	240	14.428	14.380	0.048	97	858809	8.00	
* 6 Perylene-d12	264	17.351	17.281	0.070	98	735650	8.00	
\$ 7 2-Fluorophenol	112	4.668	4.684	-0.016	94	81152	2.30	
\$ 8 Phenol-d5	99	5.758	5.763	-0.005	93	127140	2.43	
\$ 9 Nitrobenzene-d5	82	6.698	6.703	-0.005	93	129301	2.82	
\$ 10 2-Fluorobiphenyl	172	8.488	8.477	0.011	100	279730	2.54	
\$ 11 2,4,6-Tribromophenol	330	9.925	9.914	0.011	80	17669	1.60	
\$ 12 Terphenyl-d14	244	12.575	12.537	0.038	99	311374	3.16	
14 N-Nitrosodimethylamine	74		2.082				ND	
26 Phenol	94		5.779				ND	
29 Bis(2-chloroethyl)ether	93		5.854				ND	
30 2-Chlorophenol	128		5.918				ND	
38 2,2'-oxybis[1-chloropropan	45		6.426				ND	
41 N-Nitrosodi-n-propylamine	70		6.549				ND	
45 Hexachloroethane	117		6.666				ND	
46 Nitrobenzene	77		6.725				ND	
48 Isophorone	82		6.960				ND	
49 2-Nitrophenol	139		7.051				ND	
50 2,4-Dimethylphenol	107		7.088				ND	
52 Benzoic acid	122		7.147				ND	
53 Bis(2-chloroethoxy)methane	93		7.174				ND	
54 2,4-Dichlorophenol	162		7.291				ND	
56 1,2,4-Trichlorobenzene	180		7.377				ND	
58 Naphthalene	128	7.451	7.457	-0.006	92	9177	0.0648	
62 Hexachlorobutadiene	225		7.580				ND	
67 4-Chloro-3-methylphenol	107		7.964				ND	
72 Hexachlorocyclopentadiene	237		8.290				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 2,4,6-Trichlorophenol	196		8.402				ND	
77 2-Chloronaphthalene	162		8.611				ND	
82 Dimethyl phthalate	163		8.856				ND	
84 2,6-Dinitrotoluene	165		8.921				ND	
85 Acenaphthylene	152		9.017				ND	
88 Acenaphthene	153		9.182				ND	
87 2,4-Dinitrophenol	184		9.188				ND	
89 4-Nitrophenol	109		9.236				ND	
91 2,4-Dinitrotoluene	165		9.310				ND	
98 Diethyl phthalate	149	9.535	9.524	0.011	58	7520	0.0784	
100 4-Chlorophenyl phenyl ethe	204		9.663				ND	
103 Fluorene	166		9.679				ND	
104 4,6-Dinitro-2-methylphenol	198		9.711				ND	
105 N-Nitrosodiphenylamine	169		9.770				ND	
90 1,2-Diphenylhydrazine	77		9.813				ND	
110 4-Bromophenyl phenyl ether	248		10.133				ND	
112 Hexachlorobenzene	284		10.224				ND	
116 Pentachlorophenol	266		10.400				ND	
121 Phenanthrene	178		10.630				ND	
122 Anthracene	178		10.683				ND	
126 Di-n-butyl phthalate	149		11.159				ND	
131 Fluoranthene	202		12.035				ND	
132 Benzidine	184		12.185				ND	
133 Pyrene	202		12.361				ND	
138 Butyl benzyl phthalate	149		13.290				ND	
144 3,3'-Dichlorobenzidine	252		14.289				ND	
145 Bis(2-ethylhexyl) phthalat	149		14.338				ND	
146 Benzo[a]anthracene	228		14.359				ND	
147 Chrysene	228		14.434				ND	
150 Di-n-octyl phthalate	149		15.641				ND	
152 Benzo[b]fluoranthene	252		16.506				ND	
153 Benzo[k]fluoranthene	252		16.565				ND	
154 Benzo[a]pyrene	252		17.169				ND	
157 Indeno[1,2,3-cd]pyrene	276		19.658				ND	
158 Dibenz(a,h)anthracene	278		19.696				ND	
159 Benzo[g,h,i]perylene	276		20.348				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031028.D

Injection Date: 31-Oct-2014 22:22:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: 180-37750-A-7-A

Lab Sample ID: 180-37750-7

Worklist Smp#: 28

Client ID: SD-C01

Injection Vol: 2.0 ul

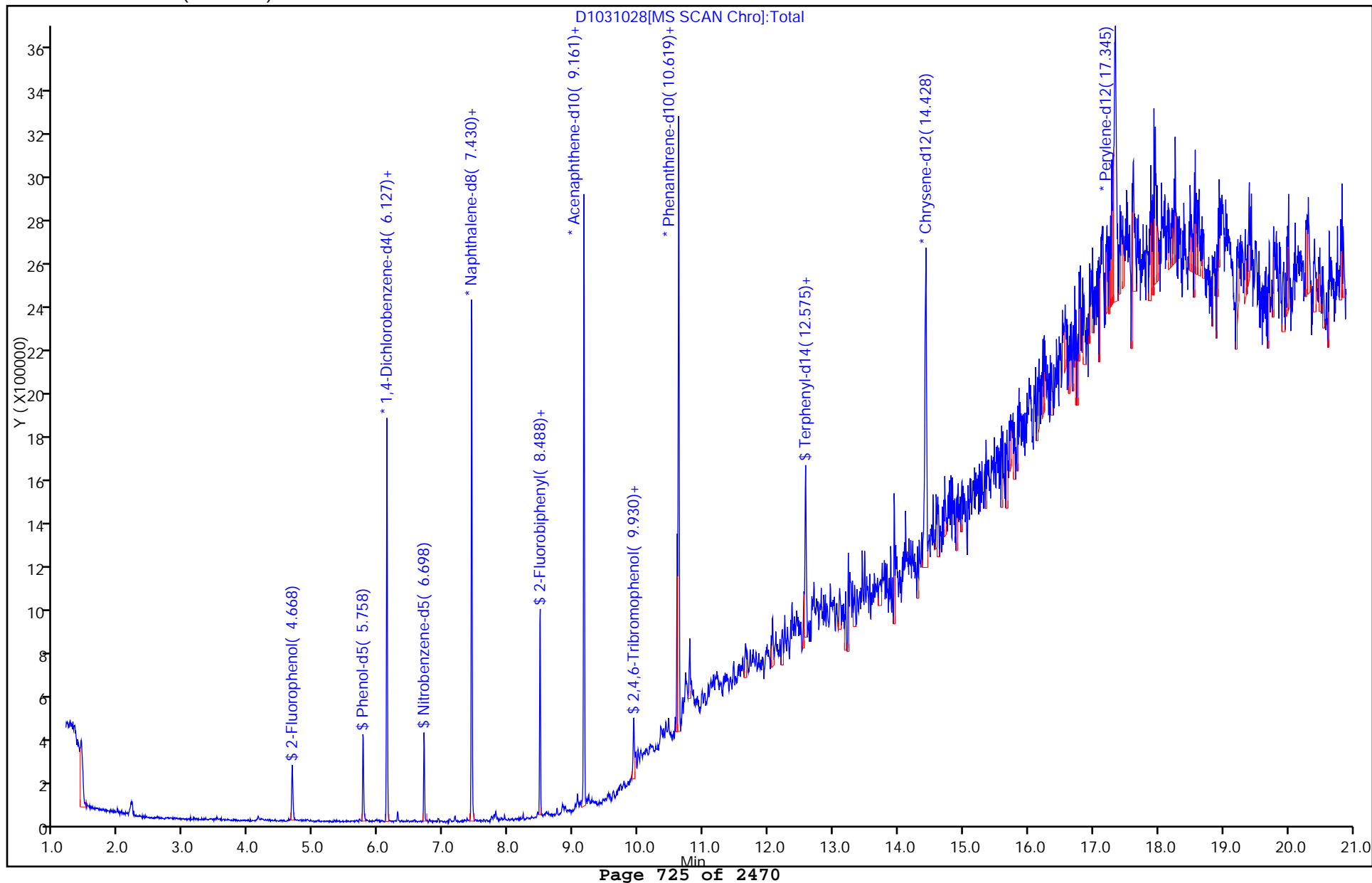
Dil. Factor: 10.0000

ALS Bottle#: 27

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031028.D

Injection Date: 31-Oct-2014 22:22:30

Instrument ID: CH732

Lims ID: 180-37750-A-7-A

Lab Sample ID: 180-37750-7

Client ID: SD-C01

Operator ID: 003200

ALS Bottle#: 27

Worklist Smp#: 28

Injection Vol: 2.0 ul

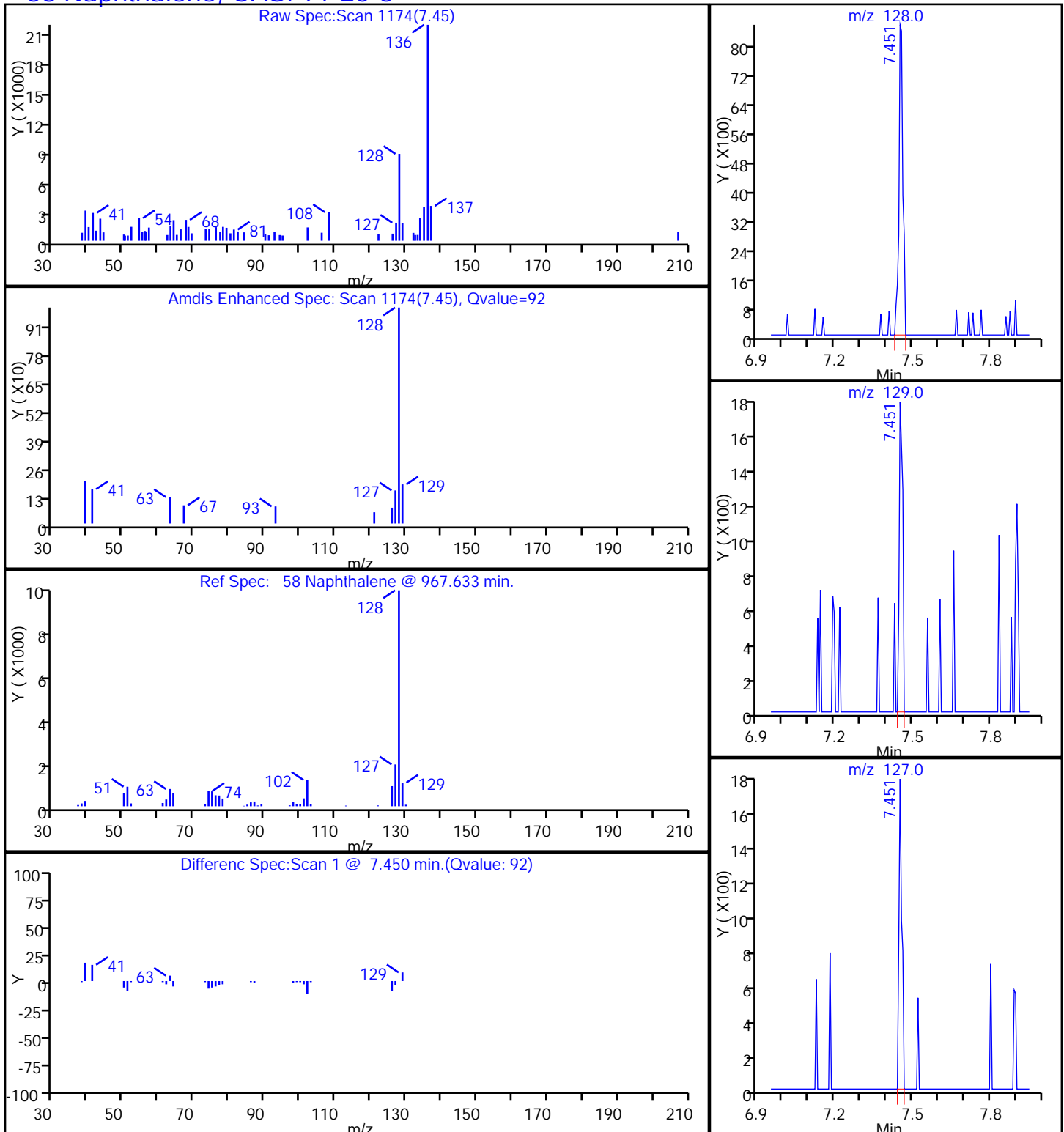
Dil. Factor: 10.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**58 Naphthalene, CAS: 91-20-3**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C02</u>	Lab Sample ID: <u>180-37750-8</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031029.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 14:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/31/2014 22:48</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>42.1</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		140	14
208-96-8	Acenaphthylene	ND		140	16
120-12-7	Anthracene	28	J	140	14
92-87-5	Benzidine	ND		14000	3000
56-55-3	Benzo[a]anthracene	ND		140	18
205-99-2	Benzo[b]fluoranthene	ND		140	23
207-08-9	Benzo[k]fluoranthene	ND		140	29
65-85-0	Benzoic acid	ND	*	3700	300
191-24-2	Benzo[g,h,i]perylene	ND		140	14
50-32-8	Benzo[a]pyrene	ND		140	14
111-91-1	Bis(2-chloroethoxy)methane	ND		710	47
111-44-4	Bis(2-chloroethyl)ether	ND		140	19
117-81-7	Bis(2-ethylhexyl) phthalate	ND		1400	120
108-60-1	2,2'-oxybis[1-chloropropane]	ND		140	16
101-55-3	4-Bromophenyl phenyl ether	ND		710	63
7005-72-3	4-Chlorophenyl phenyl ether	ND		710	80
91-58-7	2-Chloronaphthalene	ND		140	15
85-68-7	Butyl benzyl phthalate	ND		710	98
218-01-9	Chrysene	ND		140	17
53-70-3	Dibenz(a,h)anthracene	ND		140	16
84-74-2	Di-n-butyl phthalate	ND		710	90
117-84-0	Di-n-octyl phthalate	ND		710	76
84-66-2	Diethyl phthalate	ND		710	79
131-11-3	Dimethyl phthalate	ND		710	78
91-94-1	3,3'-Dichlorobenzidine	ND		710	76
121-14-2	2,4-Dinitrotoluene	ND		710	58
606-20-2	2,6-Dinitrotoluene	ND		710	74
95-57-8	2-Chlorophenol	ND		710	59
120-83-2	2,4-Dichlorophenol	ND		140	14
105-67-9	2,4-Dimethylphenol	ND		710	110
51-28-5	2,4-Dinitrophenol	ND		3700	860
88-75-5	2-Nitrophenol	ND		710	79
88-06-2	2,4,6-Trichlorophenol	ND		710	110
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		710	92

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C02</u>	Lab Sample ID: <u>180-37750-8</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031029.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 14:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/31/2014 22:48</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>42.1</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		710	40
59-50-7	4-Chloro-3-methylphenol	ND		710	66
100-02-7	4-Nitrophenol	ND		3700	260
534-52-1	4,6-Dinitro-2-methylphenol	ND		3700	290
206-44-0	Fluoranthene	110	J	140	15
86-73-7	Fluorene	ND		140	19
118-74-1	Hexachlorobenzene	ND		140	15
87-68-3	Hexachlorobutadiene	ND		140	16
77-47-4	Hexachlorocyclopentadiene	ND		710	78
67-72-1	Hexachloroethane	ND		710	52
193-39-5	Indeno[1,2,3-cd]pyrene	ND		140	15
78-59-1	Isophorone	ND		710	54
91-20-3	Naphthalene	74	J	140	12
98-95-3	Nitrobenzene	ND		1400	60
621-64-7	N-Nitrosodi-n-propylamine	ND		140	17
62-75-9	N-Nitrosodimethylamine	ND		710	62
86-30-6	N-Nitrosodiphenylamine	ND		710	67
85-01-8	Phenanthrene	54	J	140	23
129-00-0	Pyrene	90	J	140	15
87-86-5	Pentachlorophenol	ND		710	64
108-95-2	Phenol	ND		140	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	0	X D	21-116
321-60-8	2-Fluorobiphenyl	0	X D	28-108
367-12-4	2-Fluorophenol (Surr)	0	X D	28-107
4165-60-0	Nitrobenzene-d5 (Surr)	0	X D	27-110
4165-62-2	Phenol-d5 (Surr)	0	X D	30-112
1718-51-0	Terphenyl-d14 (Surr)	0	X D	21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D  
 Lims ID: 180-37750-A-8-A Lab Sample ID: 180-37750-8  
 Client ID: SD-C02  
 Sample Type: Client  
 Inject. Date: 31-Oct-2014 22:48:30 ALS Bottle#: 28 Worklist Smp#: 29  
 Injection Vol: 2.0 ul Dil. Factor: 25.0000  
 Sample Info: 180-0004118-029  
 Misc. Info.: 180-37750-A-8-A  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 01-Nov-2014 12:45:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.132	6.137	-0.005	97	266819	8.00	
* 2 Naphthalene-d8	136	7.435	7.435	0.000	100	1031424	8.00	
* 3 Acenaphthene-d10	164	9.161	9.150	0.011	92	598733	8.00	
* 4 Phenanthrene-d10	188	10.619	10.603	0.016	98	909766	8.00	
* 5 Chrysene-d12	240	14.423	14.380	0.043	97	796984	8.00	
* 6 Perylene-d12	264	17.340	17.281	0.059	97	726115	8.00	
\$ 7 2-Fluorophenol	112		4.684				ND	
\$ 8 Phenol-d5	99		5.763				ND	
\$ 9 Nitrobenzene-d5	82		6.703				ND	
\$ 10 2-Fluorobiphenyl	172		8.477				ND	
\$ 11 2,4,6-Tribromophenol	330		9.914				ND	
\$ 12 Terphenyl-d14	244		12.537				ND	
14 N-Nitrosodimethylamine	74		2.082				ND	
26 Phenol	94		5.779				ND	
29 Bis(2-chloroethyl)ether	93		5.854				ND	
30 2-Chlorophenol	128		5.918				ND	
38 2,2'-oxybis[1-chloropropan	45		6.426				ND	
41 N-Nitrosodi-n-propylamine	70		6.549				ND	
45 Hexachloroethane	117		6.666				ND	
46 Nitrobenzene	77		6.725				ND	
48 Isophorone	82		6.960				ND	
49 2-Nitrophenol	139		7.051				ND	
50 2,4-Dimethylphenol	107		7.088				ND	
52 Benzoic acid	122		7.147				ND	
53 Bis(2-chloroethoxy)methane	93		7.174				ND	
54 2,4-Dichlorophenol	162		7.291				ND	
56 1,2,4-Trichlorobenzene	180		7.377				ND	
58 Naphthalene	128	7.457	7.457	0.000	97	28331	0.2055	
62 Hexachlorobutadiene	225		7.580				ND	
67 4-Chloro-3-methylphenol	107		7.964				ND	
72 Hexachlorocyclopentadiene	237		8.290				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 2,4,6-Trichlorophenol	196		8.402				ND	
77 2-Chloronaphthalene	162		8.611				ND	
82 Dimethyl phthalate	163		8.856				ND	
84 2,6-Dinitrotoluene	165		8.921				ND	
85 Acenaphthylene	152		9.017				ND	
88 Acenaphthene	153		9.182				ND	
87 2,4-Dinitrophenol	184		9.188				ND	
89 4-Nitrophenol	109		9.236				ND	
91 2,4-Dinitrotoluene	165		9.310				ND	
98 Diethyl phthalate	149		9.524				ND	
100 4-Chlorophenyl phenyl ethe	204		9.663				ND	
103 Fluorene	166		9.679				ND	
104 4,6-Dinitro-2-methylphenol	198		9.711				ND	
105 N-Nitrosodiphenylamine	169		9.770				ND	
90 1,2-Diphenylhydrazine	77		9.813				ND	
110 4-Bromophenyl phenyl ether	248		10.133				ND	
112 Hexachlorobenzene	284		10.224				ND	
116 Pentachlorophenol	266		10.400				ND	
121 Phenanthrene	178	10.646	10.630	0.016	94	19642	0.1489	
122 Anthracene	178	10.700	10.683	0.017	88	10305	0.0777	
126 Di-n-butyl phthalate	149		11.159				ND	
131 Fluoranthene	202	12.072	12.035	0.037	96	40489	0.2932	
132 Benzidine	184		12.185				ND	
133 Pyrene	202	12.398	12.361	0.037	97	32117	0.2498	
138 Butyl benzyl phthalate	149		13.290				ND	
144 3,3'-Dichlorobenzidine	252		14.289				ND	
145 Bis(2-ethylhexyl) phthalat	149		14.338				ND	
146 Benzo[a]anthracene	228		14.359				ND	
147 Chrysene	228		14.434				ND	
150 Di-n-octyl phthalate	149		15.641				ND	
152 Benzo[b]fluoranthene	252		16.506				ND	
153 Benzo[k]fluoranthene	252		16.565				ND	
154 Benzo[a]pyrene	252		17.169				ND	
157 Indeno[1,2,3-cd]pyrene	276		19.658				ND	
158 Dibenz(a,h)anthracene	278		19.696				ND	
159 Benzo[g,h,i]perylene	276		20.348				ND	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Worklist Smp#: 29

Client ID: SD-C02

Injection Vol: 2.0 ul

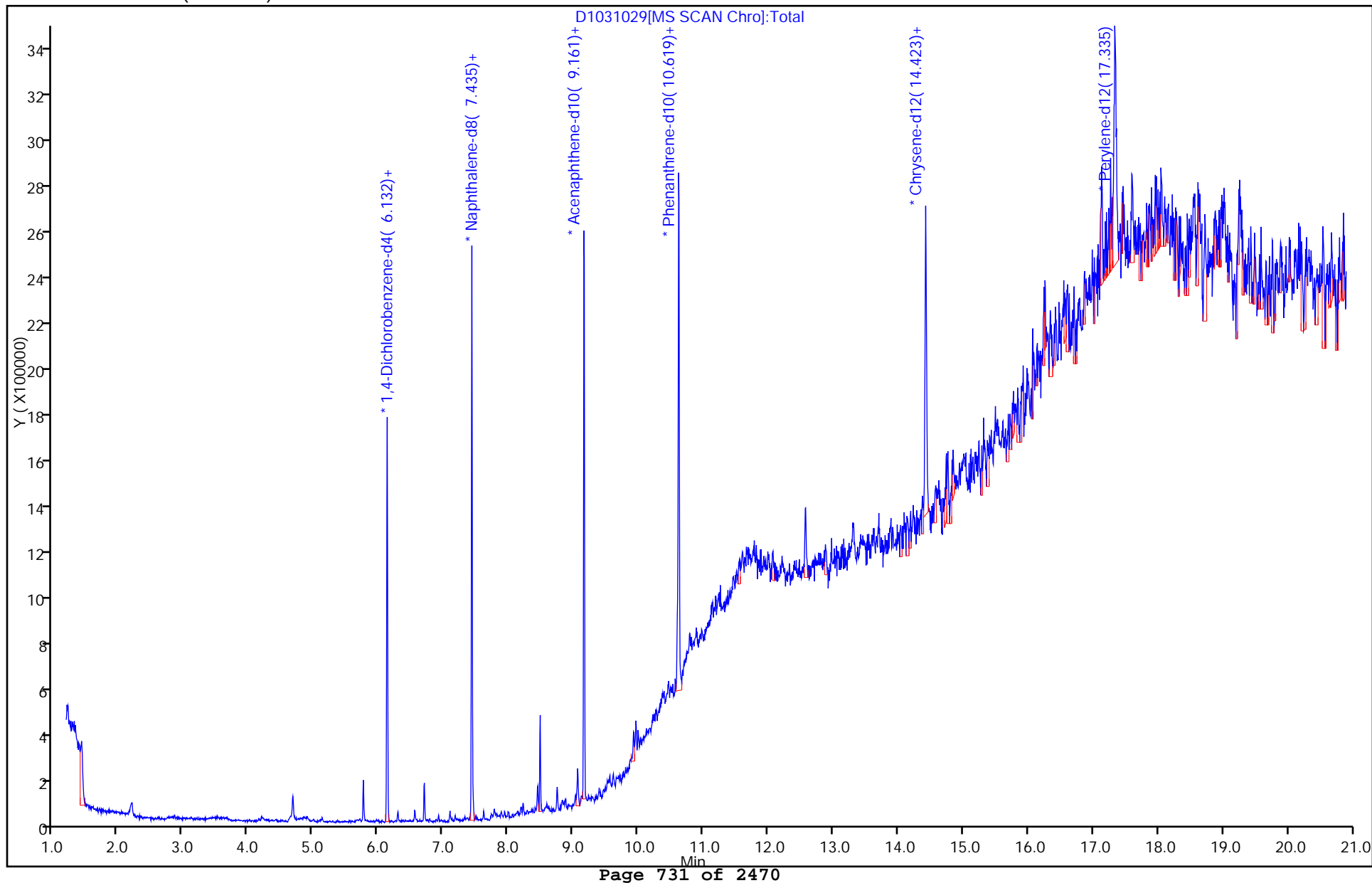
Dil. Factor: 25.0000

ALS Bottle#: 28

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 003200

ALS Bottle#: 28

Worklist Smp#: 29

Injection Vol: 2.0 ul

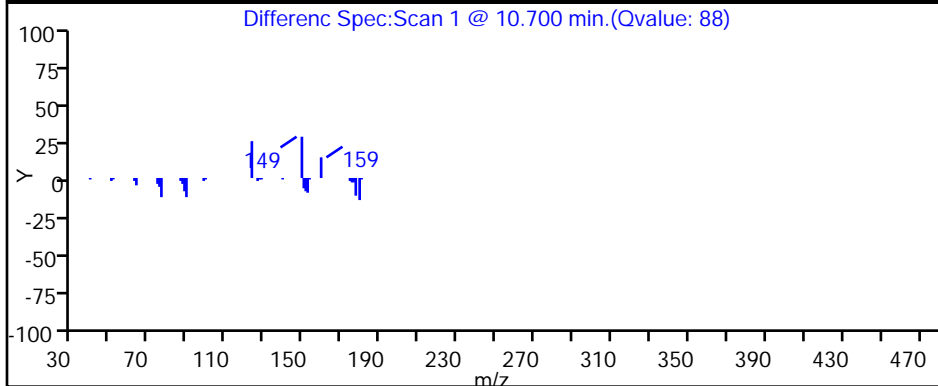
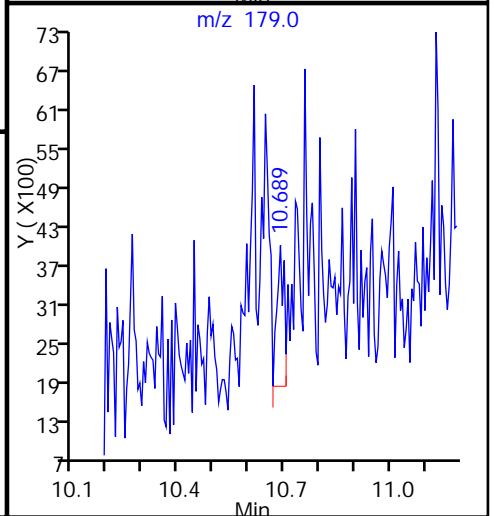
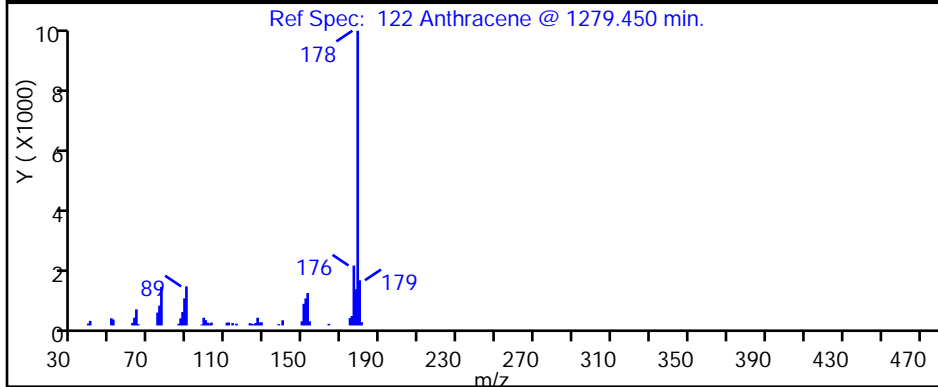
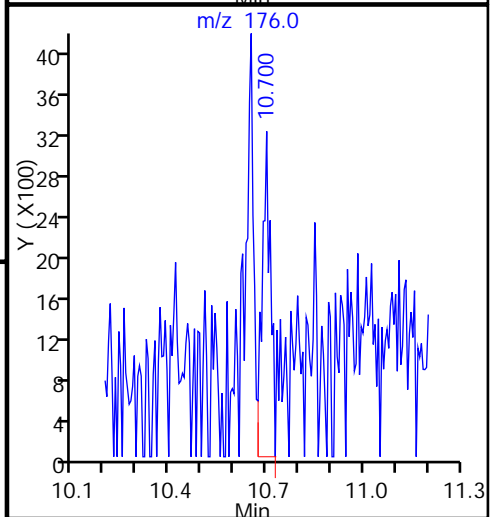
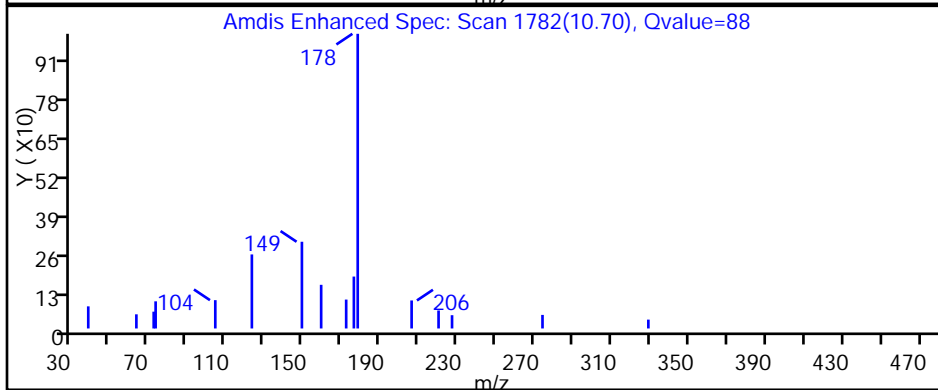
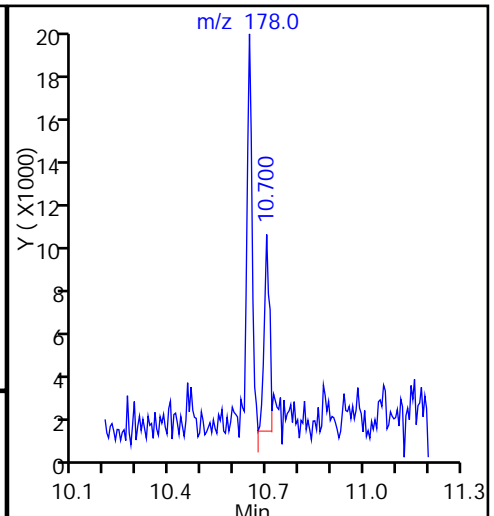
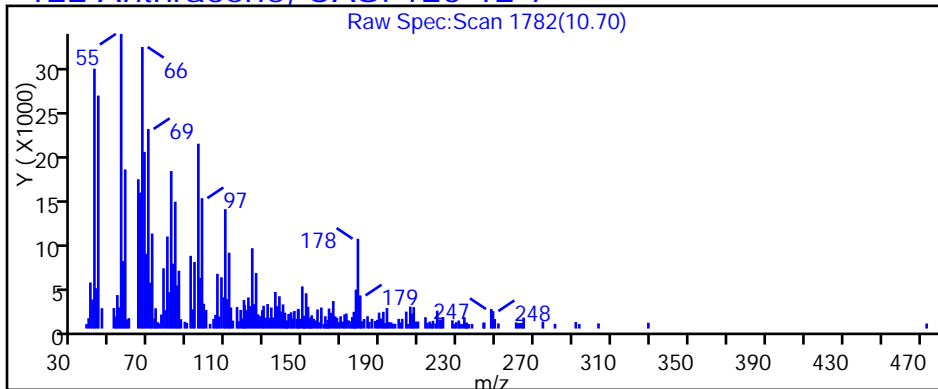
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**122 Anthracene, CAS: 120-12-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 003200

ALS Bottle#: 28

Worklist Smp#: 29

Injection Vol: 2.0 ul

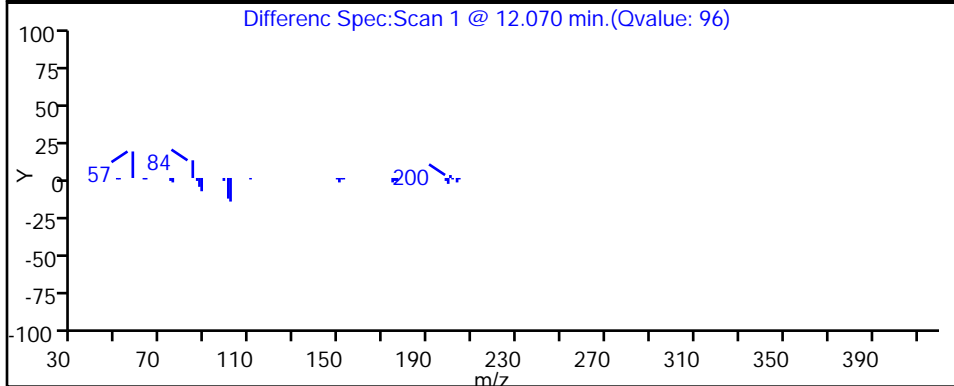
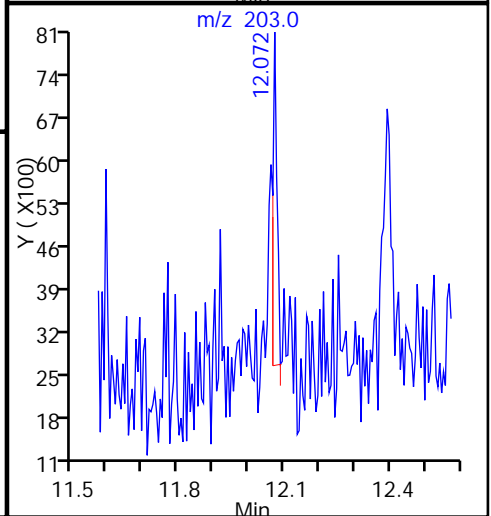
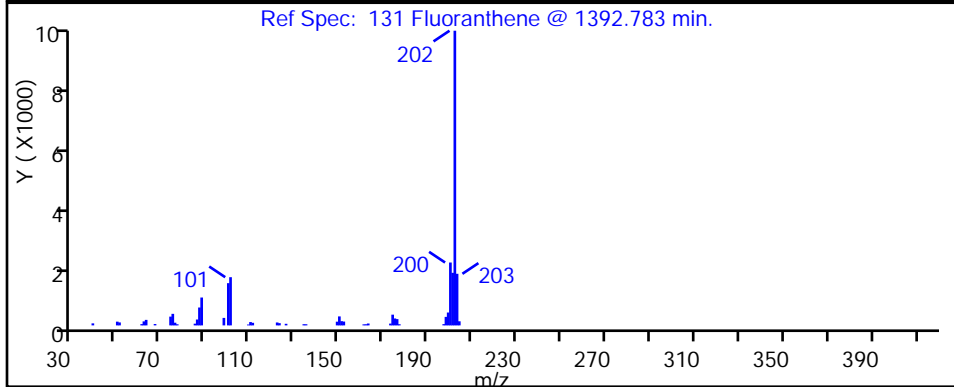
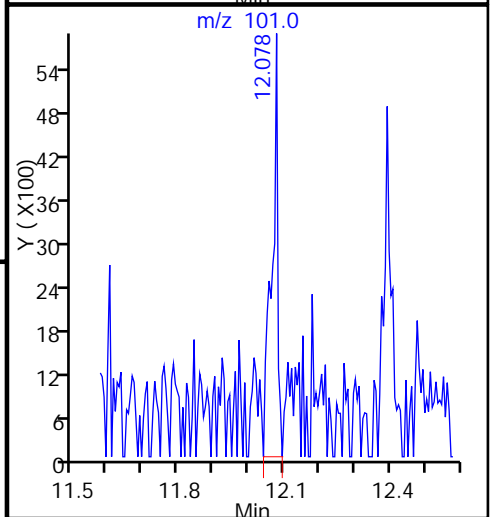
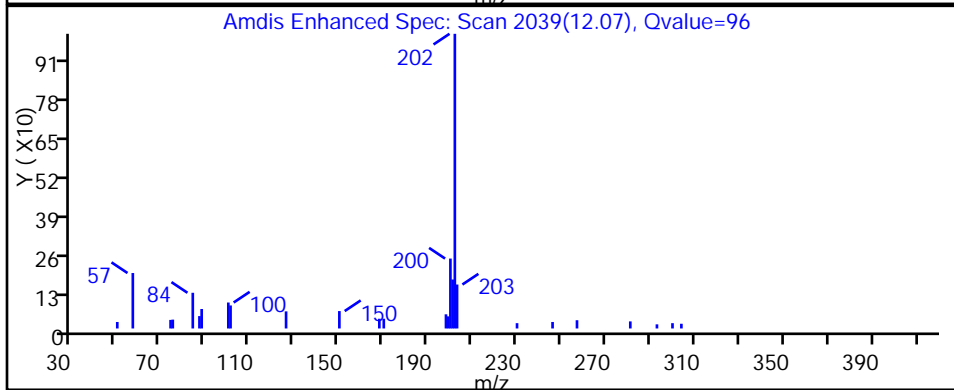
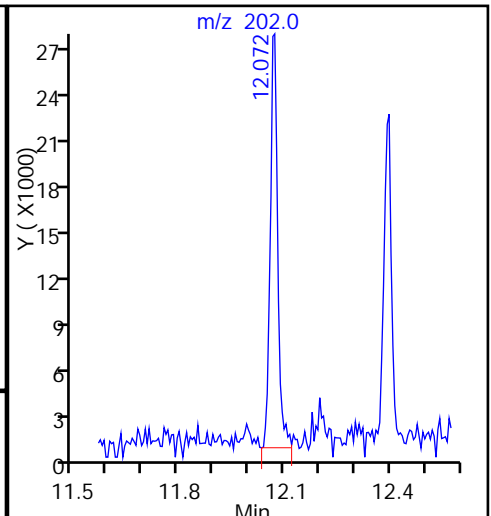
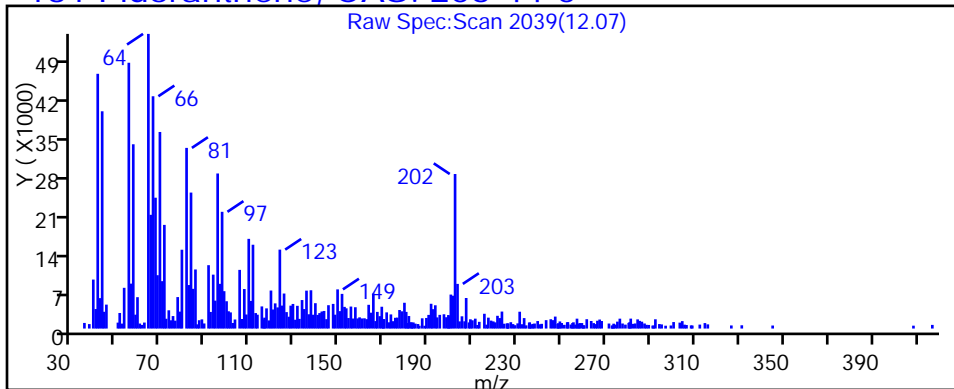
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**131 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 003200

ALS Bottle#: 28

Worklist Smp#: 29

Injection Vol: 2.0 ul

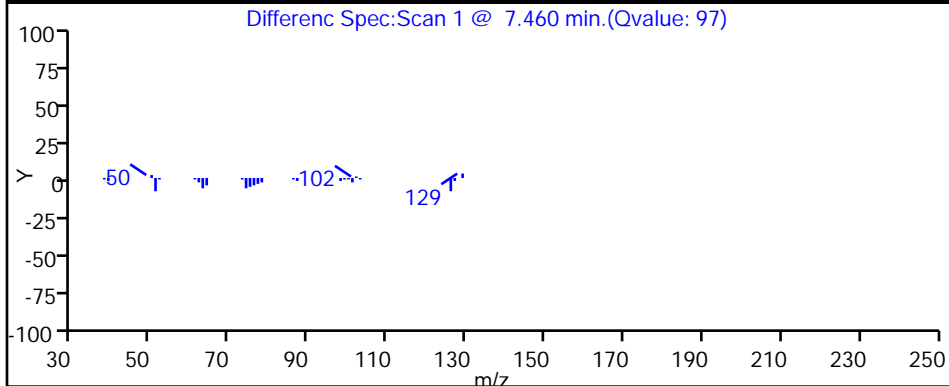
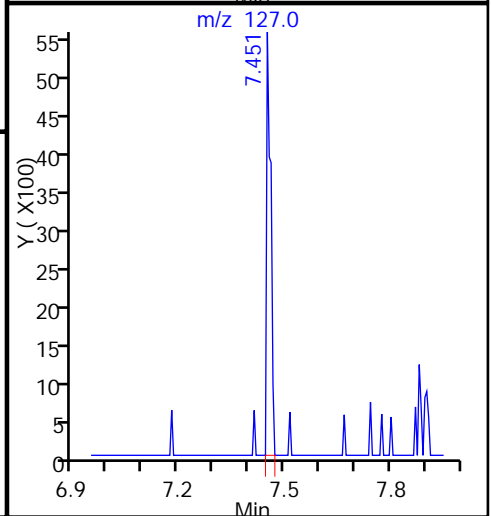
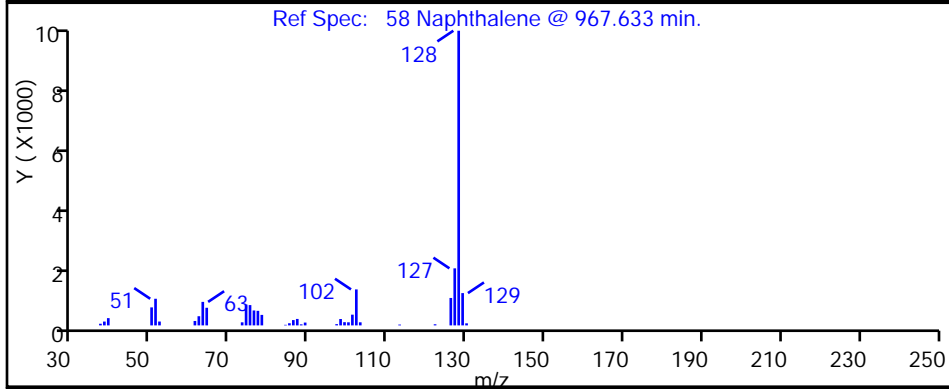
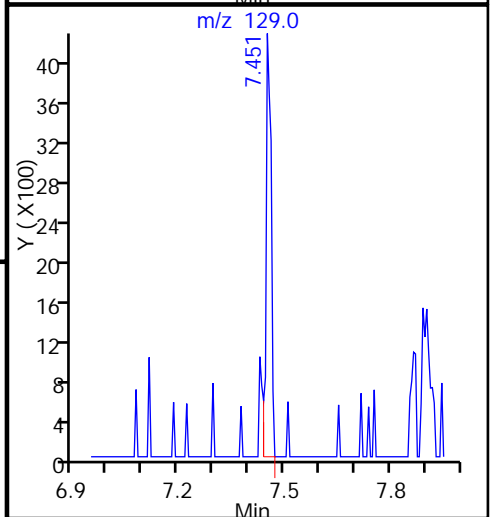
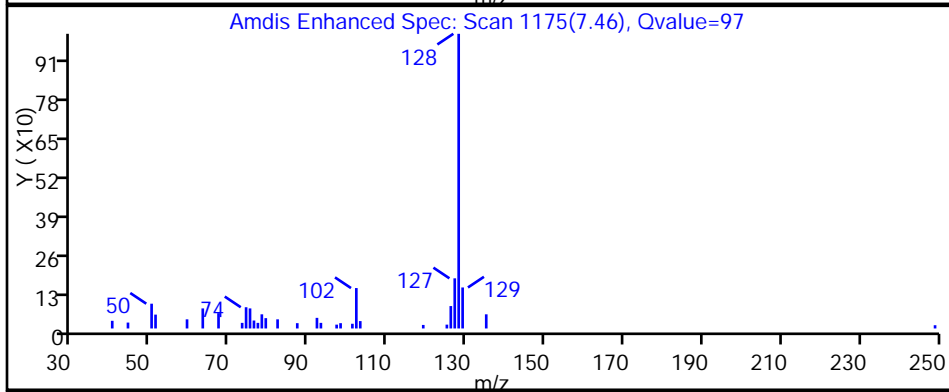
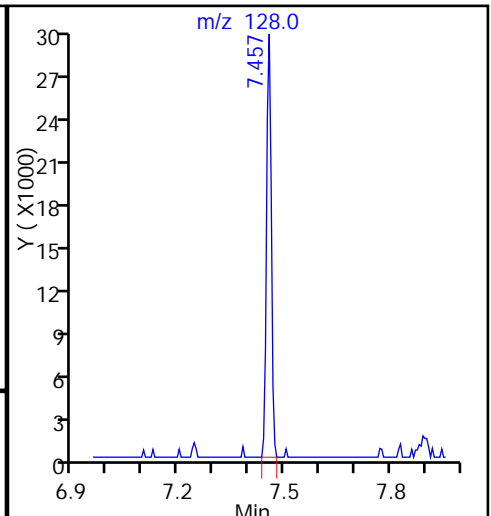
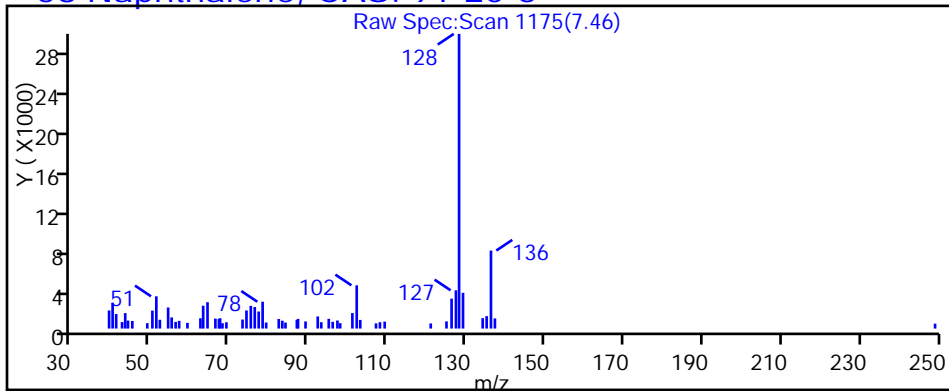
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**58 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 003200

ALS Bottle#: 28

Worklist Smp#: 29

Injection Vol: 2.0 ul

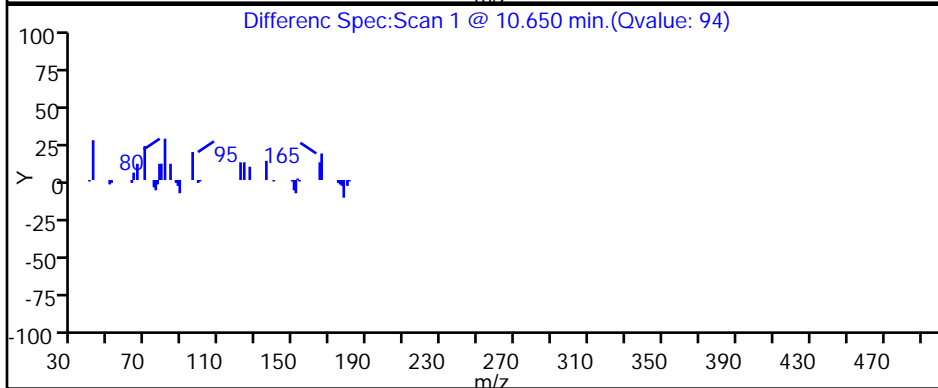
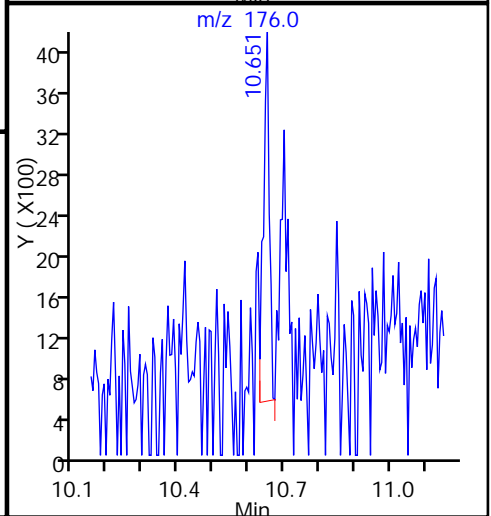
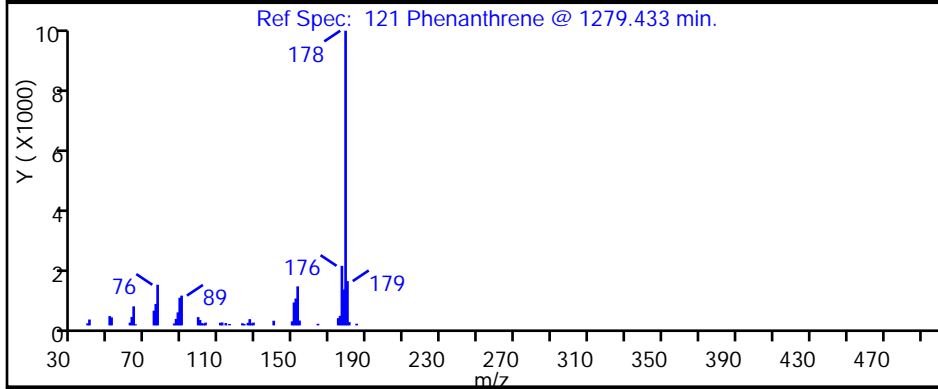
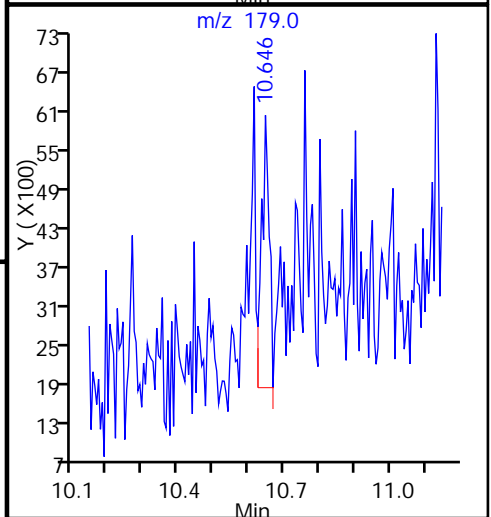
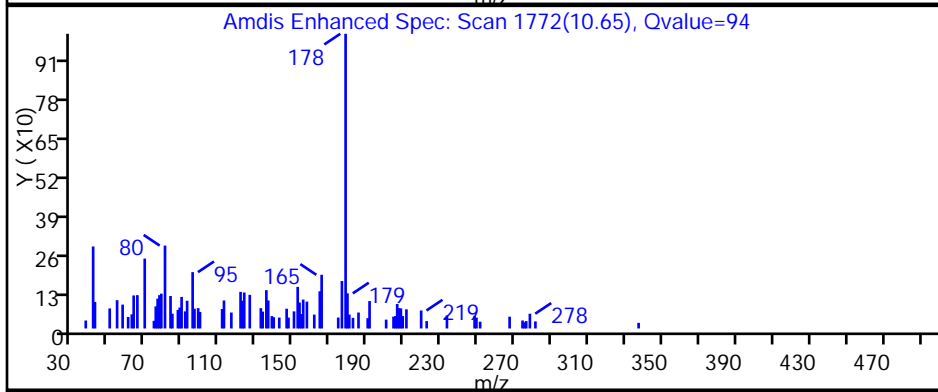
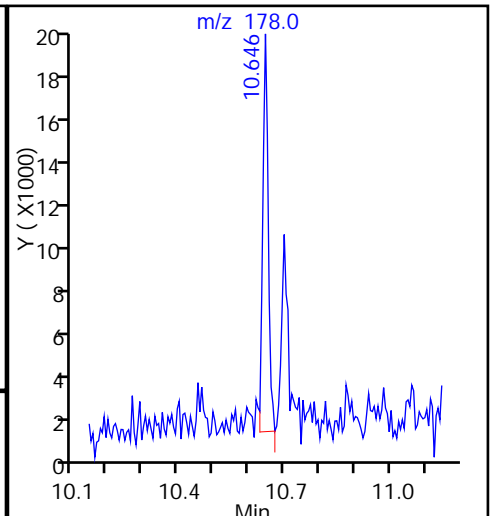
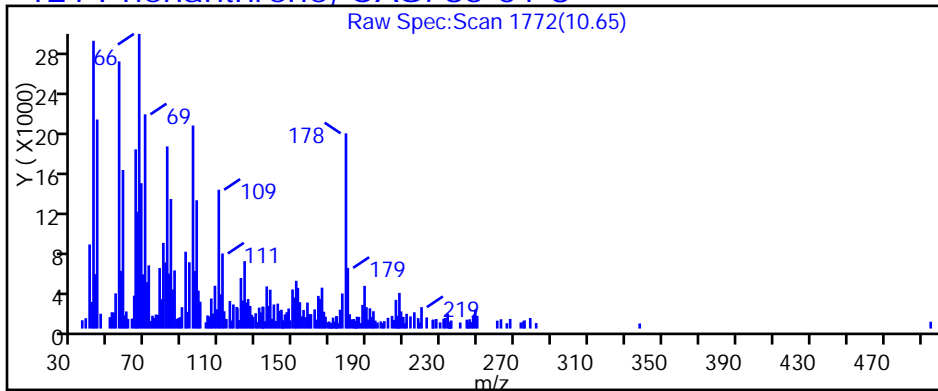
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**121 Phenanthrene, CAS: 85-01-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031029.D

Injection Date: 31-Oct-2014 22:48:30

Instrument ID: CH732

Lims ID: 180-37750-A-8-A

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 003200

ALS Bottle#: 28

Worklist Smp#: 29

Injection Vol: 2.0 ul

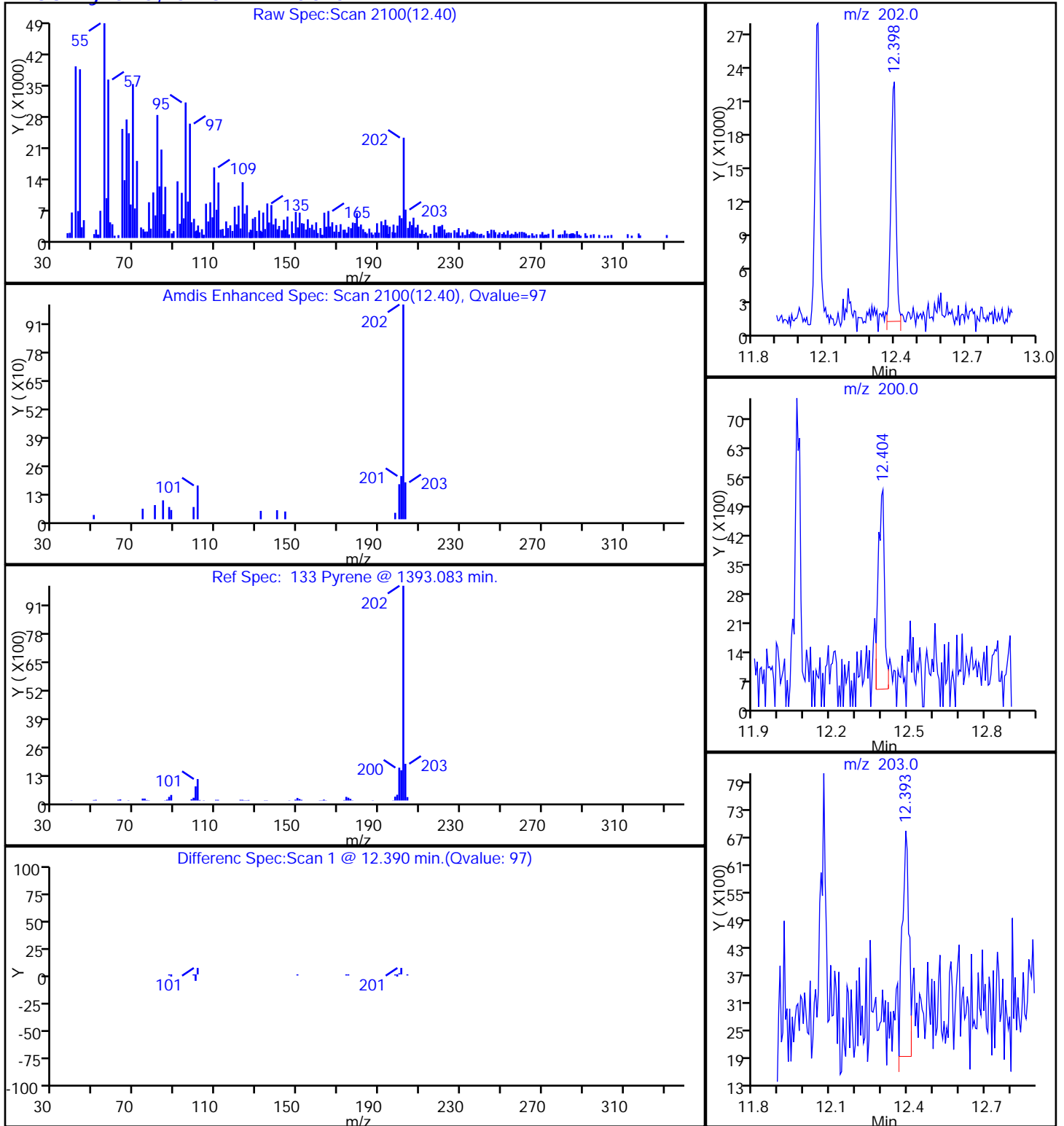
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**133 Pyrene, CAS: 129-00-0**

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C03</u>	Lab Sample ID: <u>180-37750-9</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031030.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 14:30</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/31/2014 23:14</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>76.6</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		360	34
208-96-8	Acenaphthylene	120	J	360	41
120-12-7	Anthracene	140	J	360	35
92-87-5	Benzidine	ND		36000	7400
56-55-3	Benzo[a]anthracene	270	J	360	44
205-99-2	Benzo[b]fluoranthene	690		360	56
207-08-9	Benzo[k]fluoranthene	280	J	360	72
65-85-0	Benzoic acid	ND	*	9000	740
191-24-2	Benzo[g,h,i]perylene	670		360	35
50-32-8	Benzo[a]pyrene	500		360	35
111-91-1	Bis(2-chloroethoxy)methane	ND		1800	120
111-44-4	Bis(2-chloroethyl)ether	ND		360	48
117-81-7	Bis(2-ethylhexyl) phthalate	ND		3500	290
108-60-1	2,2'-oxybis[1-chloropropane]	ND		360	38
101-55-3	4-Bromophenyl phenyl ether	ND		1800	150
7005-72-3	4-Chlorophenyl phenyl ether	ND		1800	200
91-58-7	2-Chloronaphthalene	ND		360	37
85-68-7	Butyl benzyl phthalate	ND		1800	240
218-01-9	Chrysene	360		360	42
53-70-3	Dibenz(a,h)anthracene	ND		360	39
84-74-2	Di-n-butyl phthalate	ND		1800	220
117-84-0	Di-n-octyl phthalate	ND		1800	190
84-66-2	Diethyl phthalate	ND		1800	190
131-11-3	Dimethyl phthalate	ND		1800	190
91-94-1	3,3'-Dichlorobenzidine	ND		1800	190
121-14-2	2,4-Dinitrotoluene	ND		1800	140
606-20-2	2,6-Dinitrotoluene	ND		1800	180
95-57-8	2-Chlorophenol	ND		1800	150
120-83-2	2,4-Dichlorophenol	ND		360	36
105-67-9	2,4-Dimethylphenol	ND		1800	280
51-28-5	2,4-Dinitrophenol	ND		9000	2100
88-75-5	2-Nitrophenol	ND		1800	200
88-06-2	2,4,6-Trichlorophenol	ND		1800	270
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		1800	230

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-C03</u>	Lab Sample ID: <u>180-37750-9</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>D1031030.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 14:30</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.2(g)</u>	Date Analyzed: <u>10/31/2014 23:14</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>25</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>76.6</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123453</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		1800	98
59-50-7	4-Chloro-3-methylphenol	ND		1800	160
100-02-7	4-Nitrophenol	ND		9000	650
534-52-1	4,6-Dinitro-2-methylphenol	ND		9000	710
206-44-0	Fluoranthene	680		360	38
86-73-7	Fluorene	ND		360	47
118-74-1	Hexachlorobenzene	ND		360	38
87-68-3	Hexachlorobutadiene	ND		360	40
77-47-4	Hexachlorocyclopentadiene	ND		1800	190
67-72-1	Hexachloroethane	ND		1800	130
193-39-5	Indeno[1,2,3-cd]pyrene	470		360	37
78-59-1	Isophorone	ND		1800	130
91-20-3	Naphthalene	560		360	31
98-95-3	Nitrobenzene	ND		3500	150
621-64-7	N-Nitrosodi-n-propylamine	ND		360	42
62-75-9	N-Nitrosodimethylamine	ND		1800	150
86-30-6	N-Nitrosodiphenylamine	ND		1800	160
85-01-8	Phenanthrene	200	J	360	56
129-00-0	Pyrene	690		360	36
87-86-5	Pentachlorophenol	ND		1800	160
108-95-2	Phenol	ND		360	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	0	X D	21-116
321-60-8	2-Fluorobiphenyl	0	X D	28-108
367-12-4	2-Fluorophenol (Surr)	0	X D	28-107
4165-60-0	Nitrobenzene-d5 (Surr)	0	X D	27-110
4165-62-2	Phenol-d5 (Surr)	0	X D	30-112
1718-51-0	Terphenyl-d14 (Surr)	0	X D	21-130



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D  
 Lims ID: 180-37750-A-9-A Lab Sample ID: 180-37750-9  
 Client ID: SD-C03  
 Sample Type: Client  
 Inject. Date: 31-Oct-2014 23:14:30 ALS Bottle#: 29 Worklist Smp#: 30  
 Injection Vol: 2.0 ul Dil. Factor: 25.0000  
 Sample Info: 180-0004118-030  
 Misc. Info.: 180-37750-A-9-A  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 01-Nov-2014 12:47:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.127	6.137	-0.010	98	239975	8.00	
* 2 Naphthalene-d8	136	7.430	7.435	-0.005	100	922574	8.00	
* 3 Acenaphthene-d10	164	9.161	9.150	0.011	93	514011	8.00	
* 4 Phenanthrene-d10	188	10.620	10.603	0.017	98	813981	8.00	
* 5 Chrysene-d12	240	14.429	14.380	0.049	96	760629	8.00	
* 6 Perylene-d12	264	17.345	17.281	0.064	97	773279	8.00	
\$ 7 2-Fluorophenol	112		4.684				ND	
\$ 8 Phenol-d5	99		5.763				ND	
\$ 9 Nitrobenzene-d5	82		6.703				ND	
\$ 10 2-Fluorobiphenyl	172		8.477				ND	
\$ 11 2,4,6-Tribromophenol	330		9.914				ND	
\$ 12 Terphenyl-d14	244		12.537				ND	
14 N-Nitrosodimethylamine	74		2.082				ND	
26 Phenol	94		5.779				ND	
29 Bis(2-chloroethyl)ether	93		5.854				ND	
30 2-Chlorophenol	128		5.918				ND	
38 2,2'-oxybis[1-chloropropan	45		6.426				ND	
41 N-Nitrosodi-n-propylamine	70		6.549				ND	
45 Hexachloroethane	117		6.666				ND	
46 Nitrobenzene	77		6.725				ND	
48 Isophorone	82		6.960				ND	
49 2-Nitrophenol	139		7.051				ND	
50 2,4-Dimethylphenol	107		7.088				ND	
52 Benzoic acid	122		7.147				ND	
53 Bis(2-chloroethoxy)methane	93		7.174				ND	
54 2,4-Dichlorophenol	162		7.291				ND	
56 1,2,4-Trichlorobenzene	180		7.377				ND	
58 Naphthalene	128	7.452	7.457	-0.005	97	77620	0.6294	
62 Hexachlorobutadiene	225		7.580				ND	
67 4-Chloro-3-methylphenol	107		7.964				ND	
72 Hexachlorocyclopentadiene	237		8.290				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
74 2,4,6-Trichlorophenol	196		8.402				ND	
77 2-Chloronaphthalene	162		8.611				ND	
82 Dimethyl phthalate	163		8.856				ND	
84 2,6-Dinitrotoluene	165		8.921				ND	
85 Acenaphthylene	152	9.028	9.017	0.011	94	16474	0.1409	
88 Acenaphthene	153		9.182				ND	
87 2,4-Dinitrophenol	184		9.188				ND	
89 4-Nitrophenol	109		9.236				ND	
91 2,4-Dinitrotoluene	165		9.310				ND	
98 Diethyl phthalate	149		9.524				ND	
100 4-Chlorophenyl phenyl ethe	204		9.663				ND	
103 Fluorene	166		9.679				ND	
104 4,6-Dinitro-2-methylphenol	198		9.711				ND	
105 N-Nitrosodiphenylamine	169		9.770				ND	
90 1,2-Diphenylhydrazine	77		9.813				ND	
110 4-Bromophenyl phenyl ether	248		10.133				ND	
112 Hexachlorobenzene	284		10.224				ND	
116 Pentachlorophenol	266		10.400				ND	
121 Phenanthrene	178	10.646	10.630	0.016	89	26067	0.2209	
122 Anthracene	178	10.700	10.683	0.017	35	18754	0.1580	
126 Di-n-butyl phthalate	149		11.159				ND	
131 Fluoranthene	202	12.073	12.035	0.038	97	94566	0.7655	
132 Benzidine	184		12.185				ND	
133 Pyrene	202	12.393	12.361	0.032	98	95100	0.7749	
138 Butyl benzyl phthalate	149		13.290				ND	
144 3,3'-Dichlorobenzidine	252		14.289				ND	
145 Bis(2-ethylhexyl) phthalat	149		14.338				ND	
146 Benzo[a]anthracene	228	14.407	14.359	0.048	57	34200	0.3046	
147 Chrysene	228	14.471	14.434	0.037	91	43452	0.4037	
150 Di-n-octyl phthalate	149		15.641				ND	
152 Benzo[b]fluoranthene	252	16.565	16.506	0.059	91	99423	0.7840	
153 Benzo[k]fluoranthene	252	16.608	16.565	0.043	44	39670	0.3119	M
154 Benzo[a]pyrene	252	17.228	17.169	0.059	71	64407	0.5620	
157 Indeno[1,2,3-cd]pyrene	276	19.744	19.658	0.086	38	64275	0.5324	M
158 Dibenz(a,h)anthracene	278		19.696				ND	
159 Benzo[g,h,i]perylene	276	20.449	20.348	0.101	93	76930	0.7515	M

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Worklist Smp#: 30

Client ID: SD-C03

Injection Vol: 2.0 ul

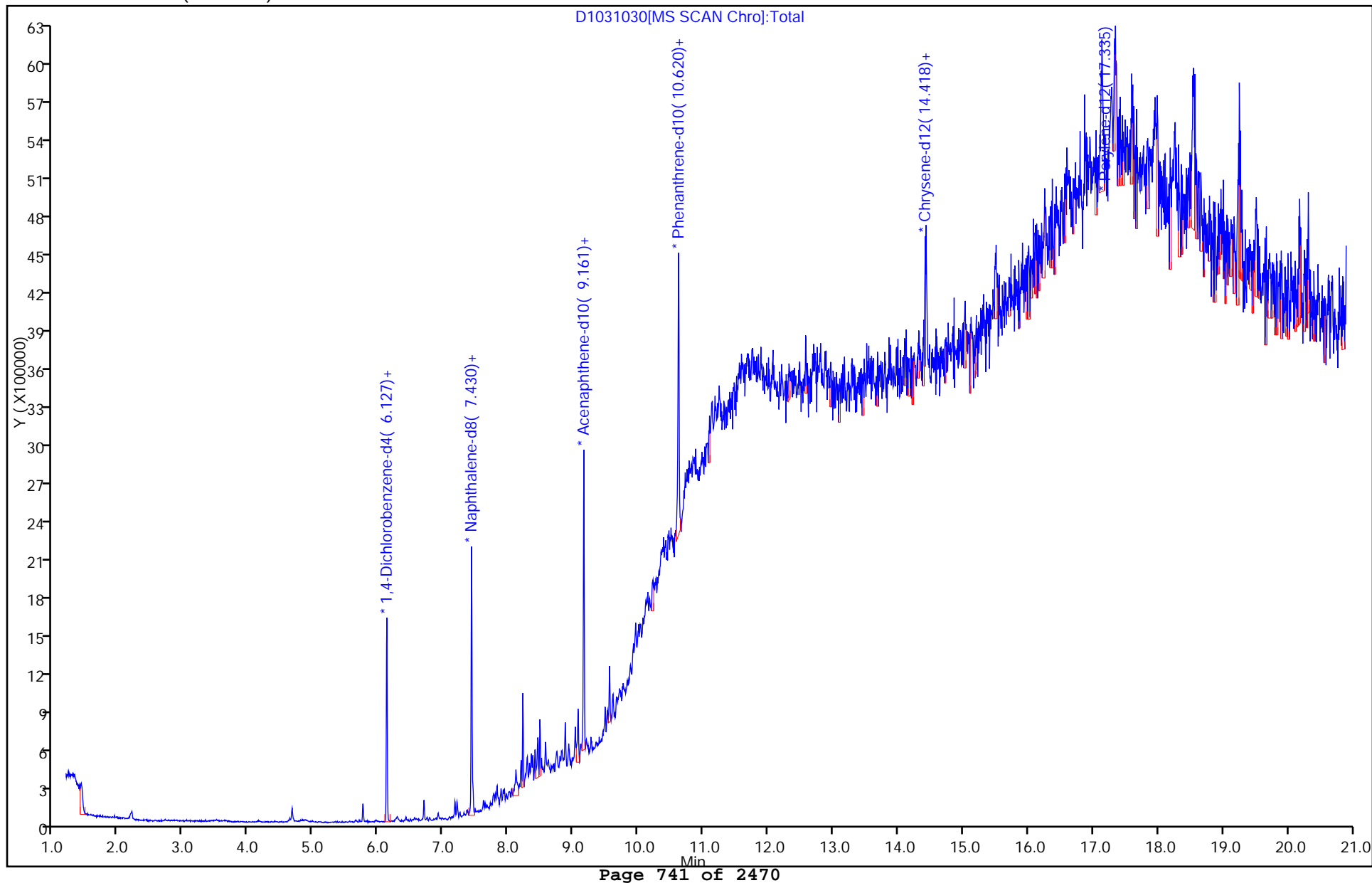
Dil. Factor: 25.0000

ALS Bottle#: 29

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

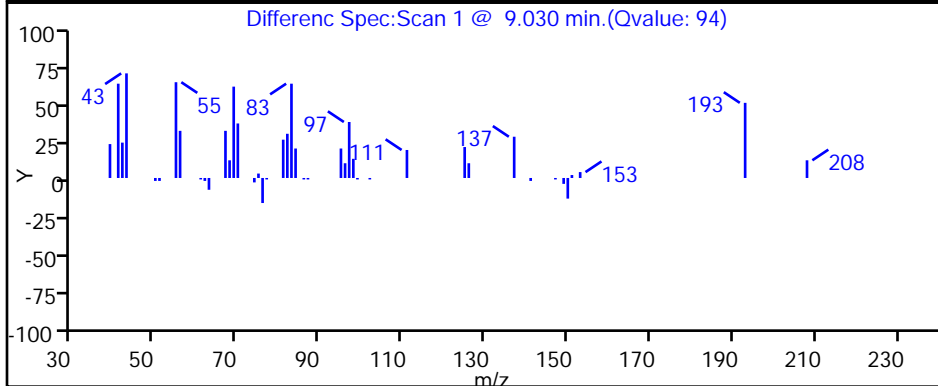
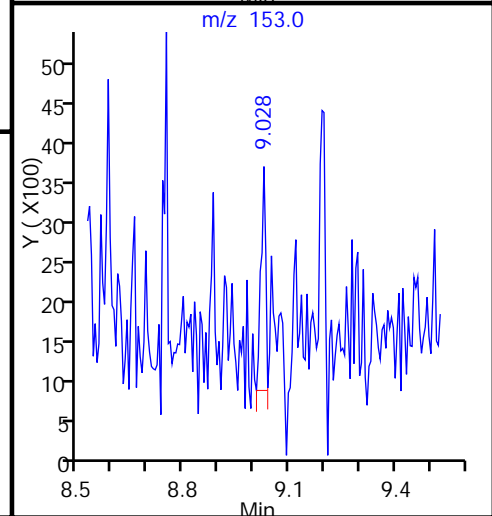
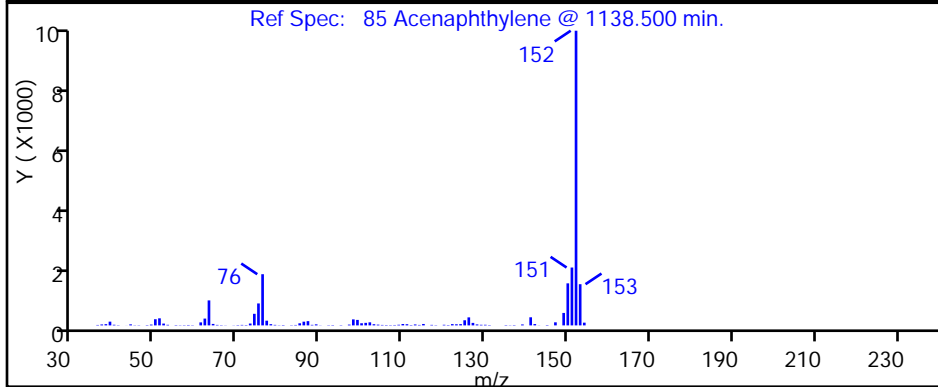
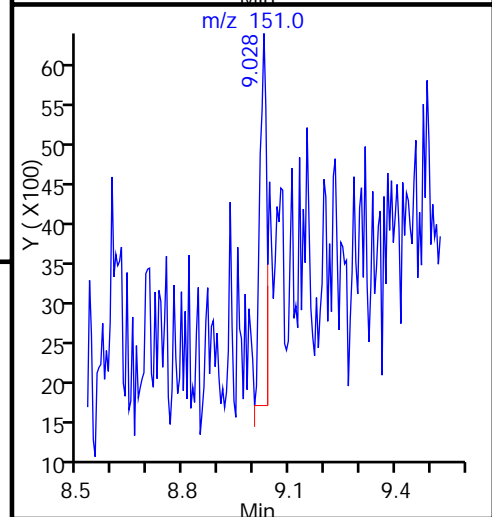
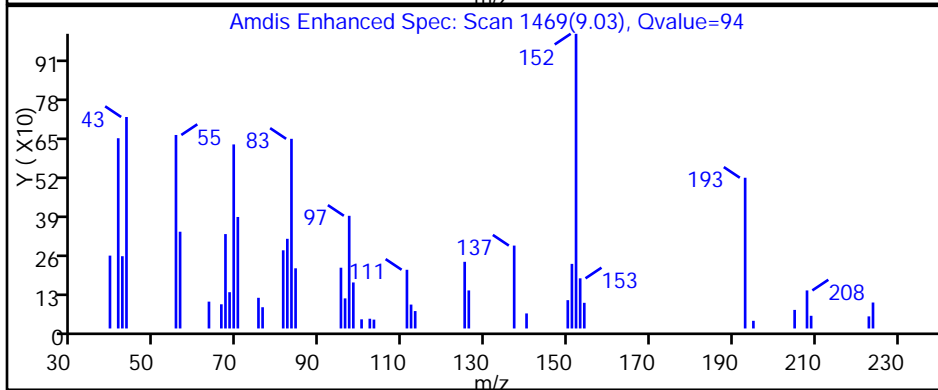
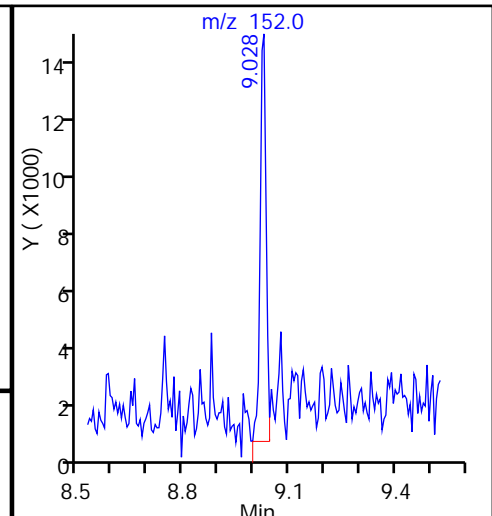
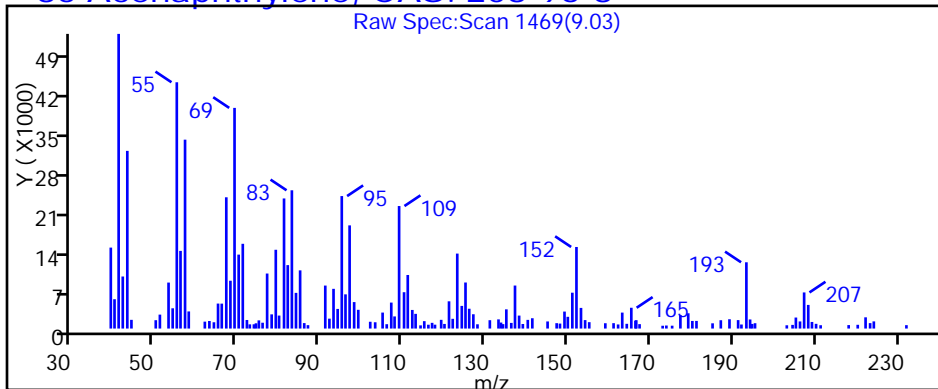
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**85 Acenaphthylene, CAS: 208-96-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

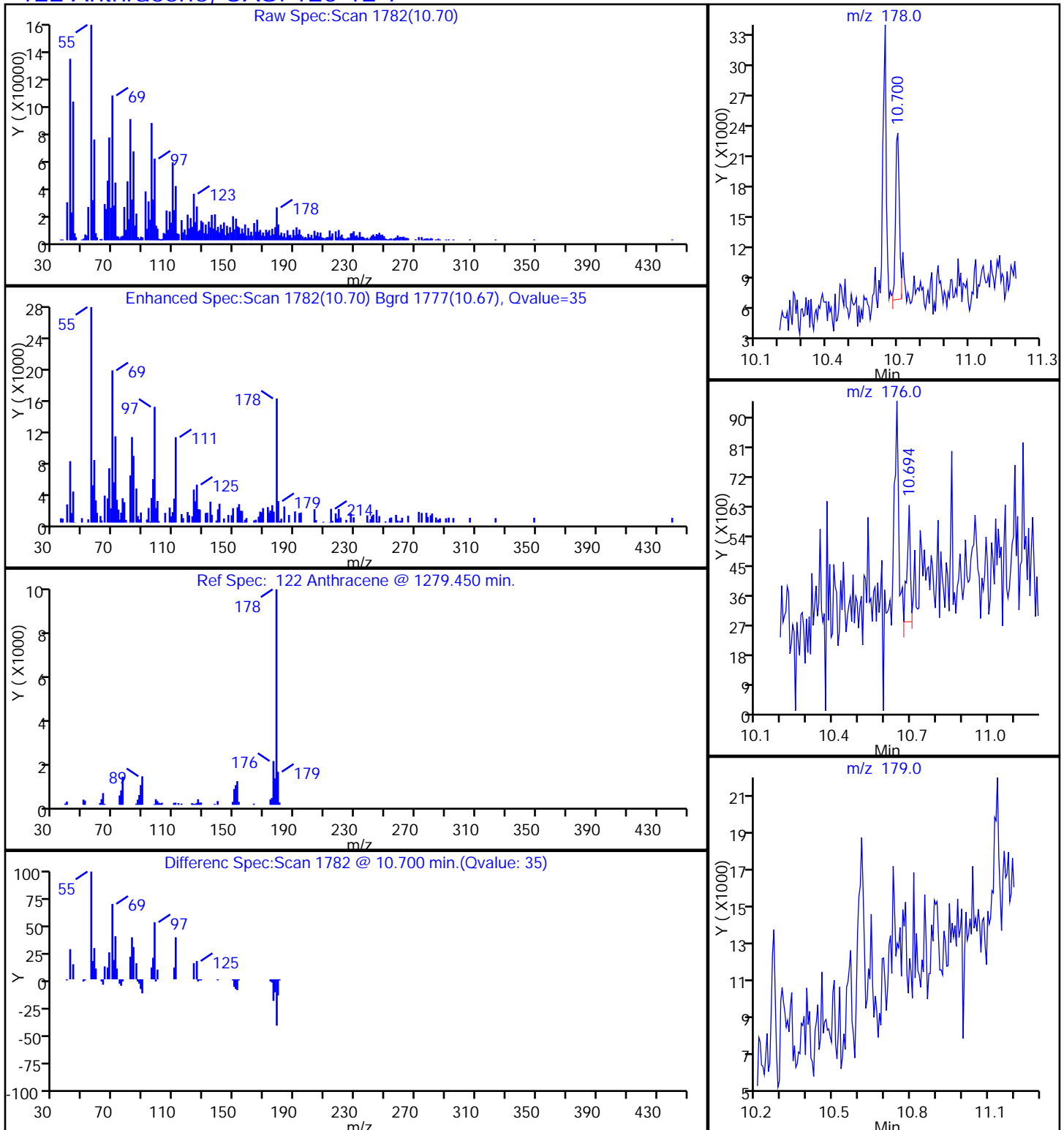
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**122 Anthracene, CAS: 120-12-7**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

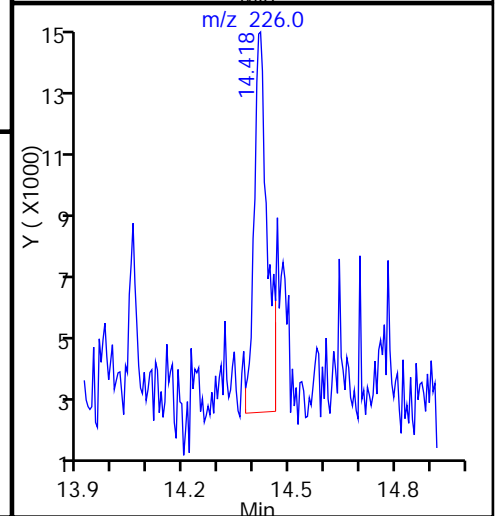
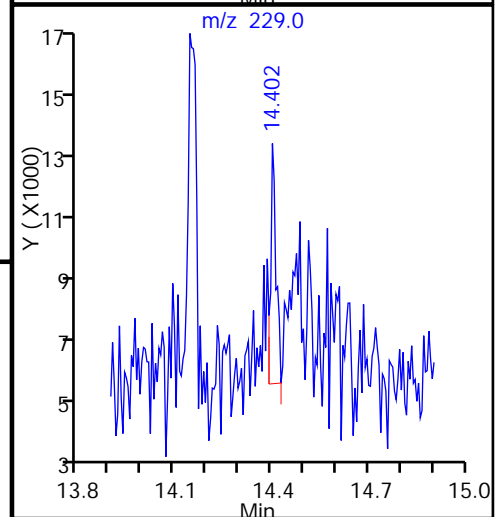
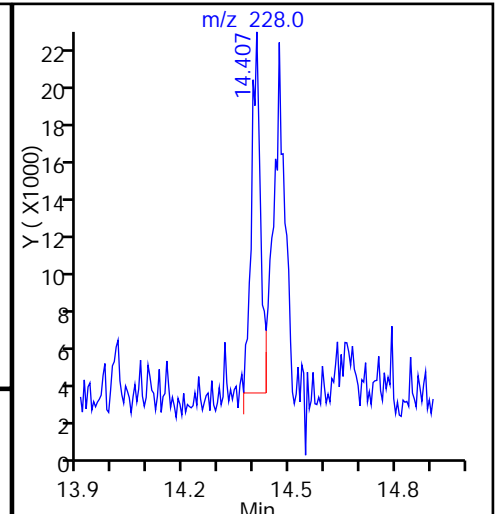
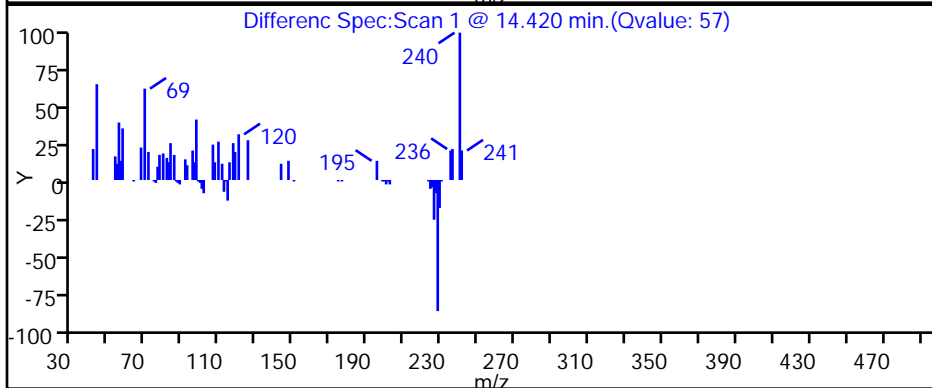
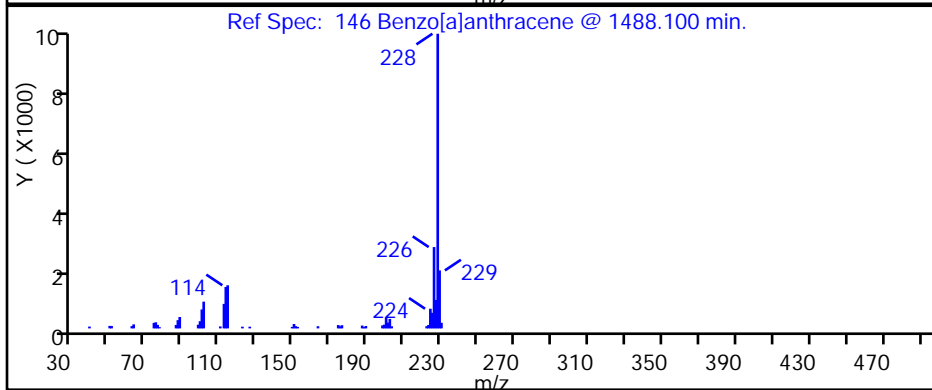
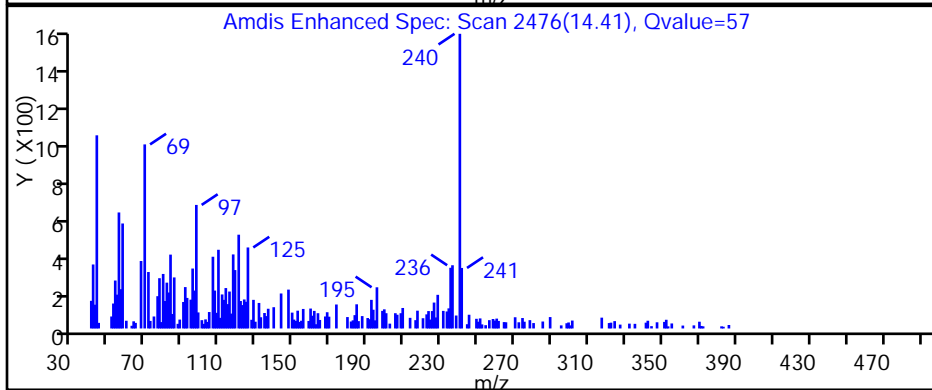
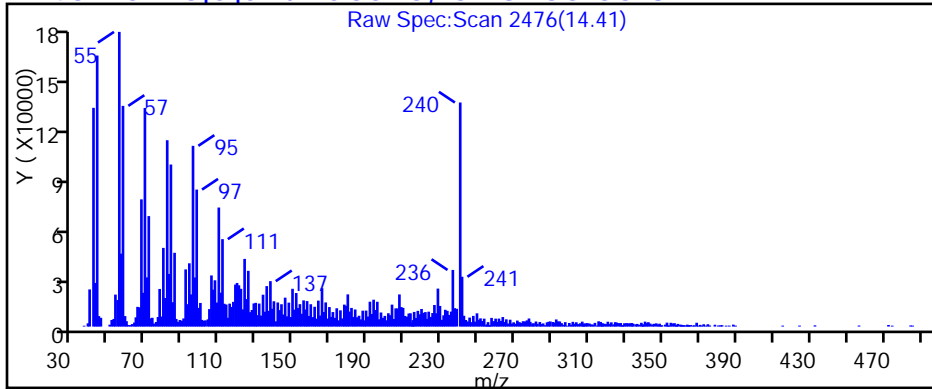
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**146 Benzo[a]anthracene, CAS: 56-55-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

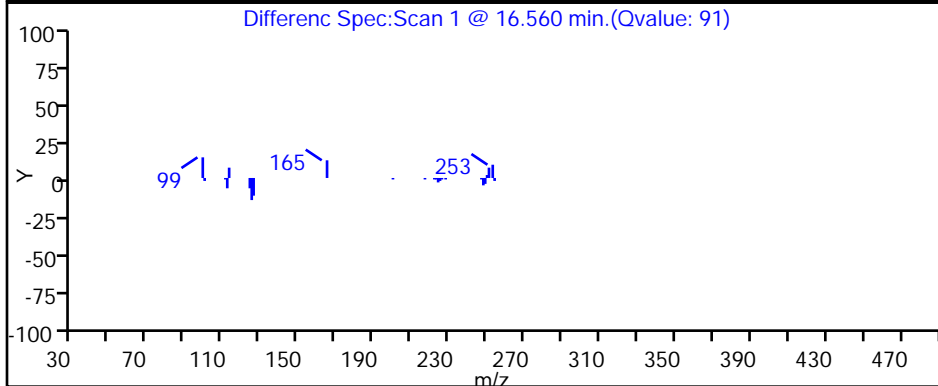
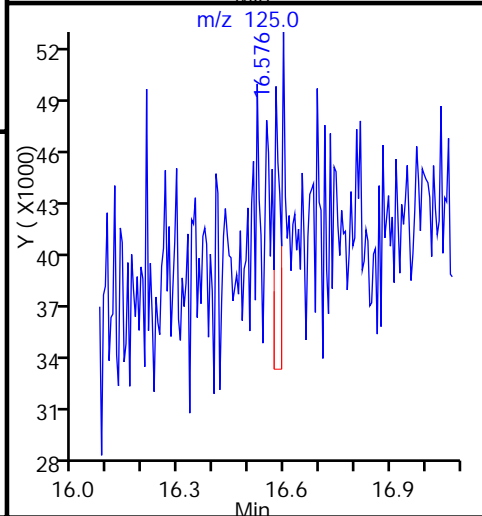
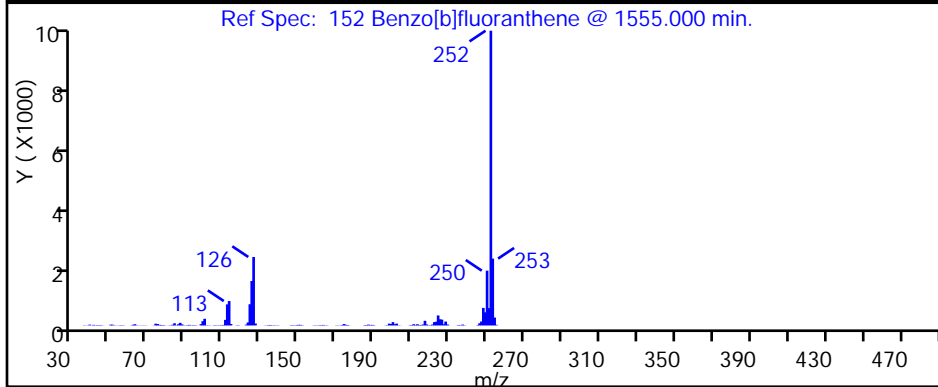
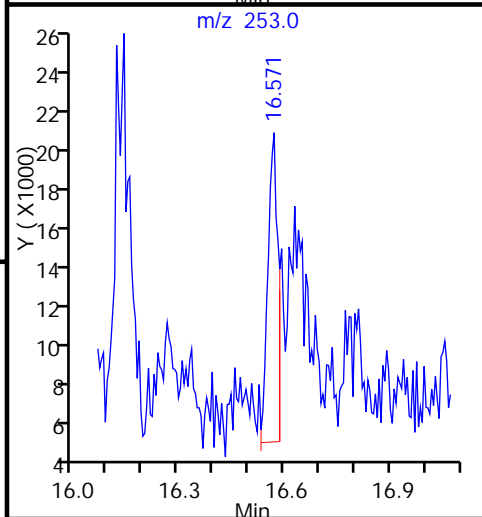
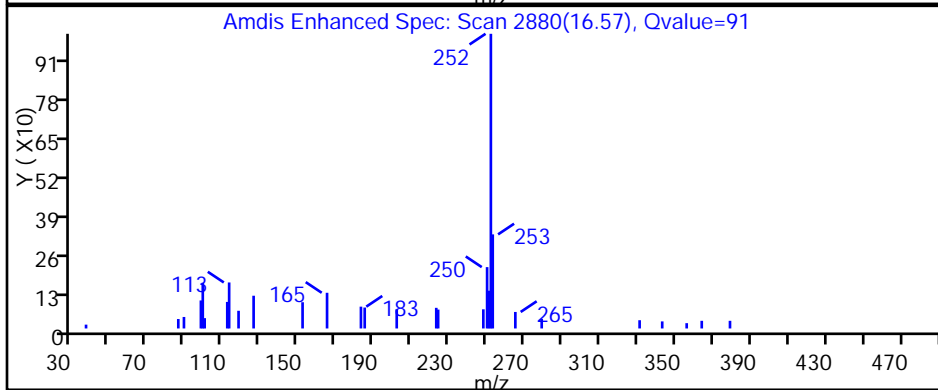
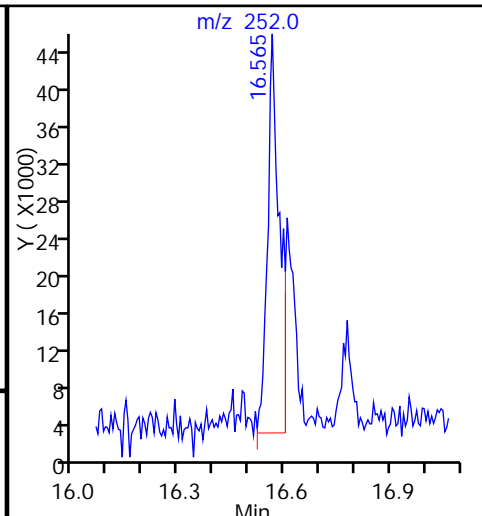
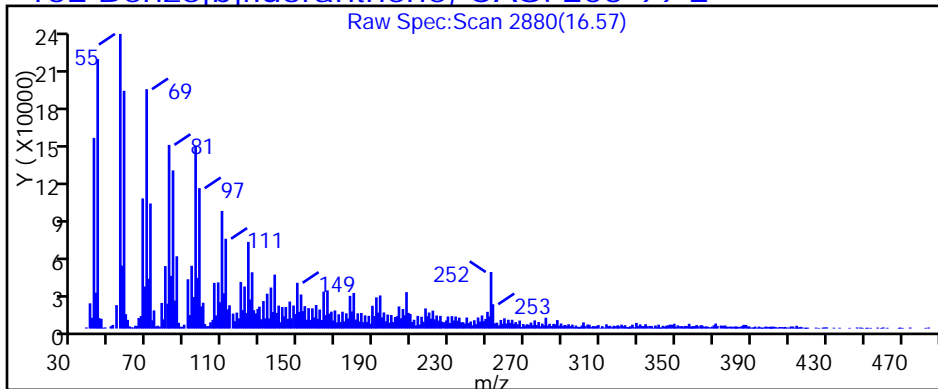
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**152 Benzo[b]fluoranthene, CAS: 205-99-2**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

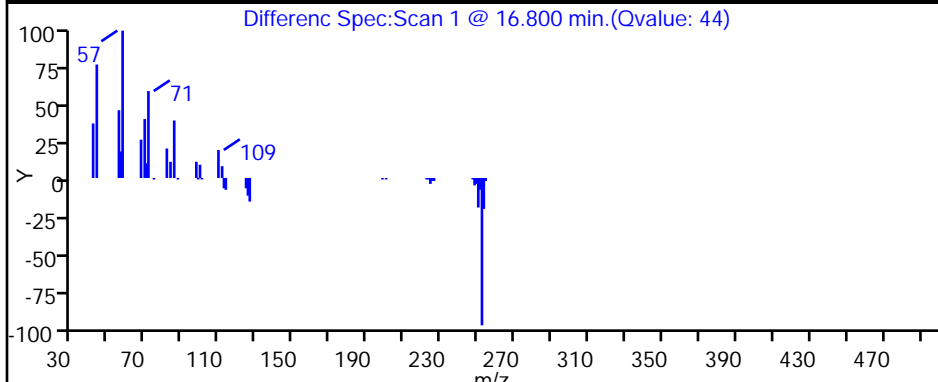
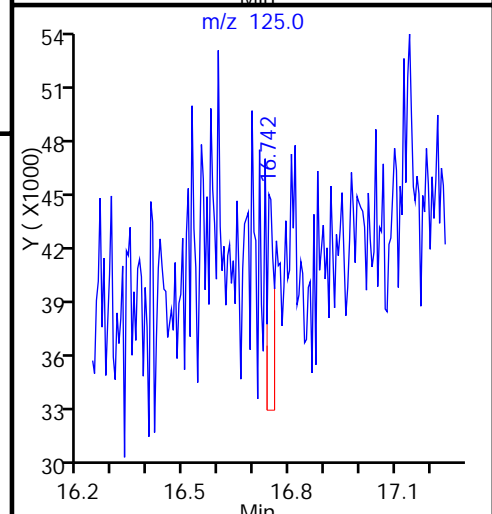
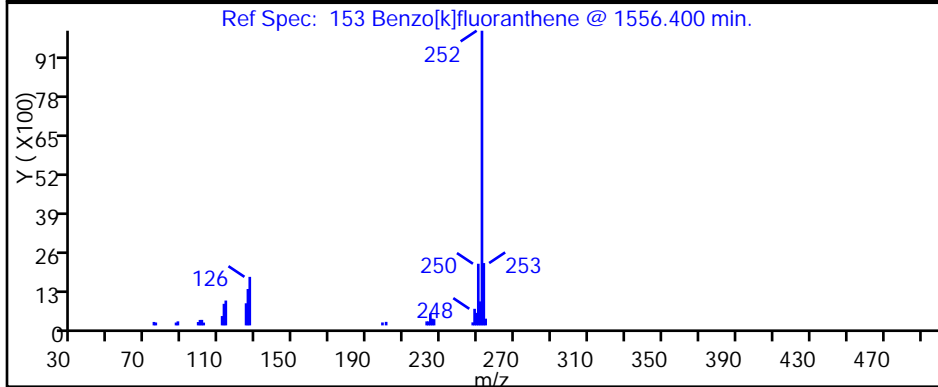
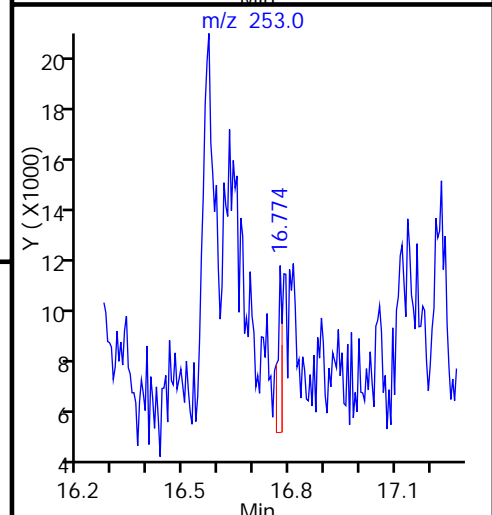
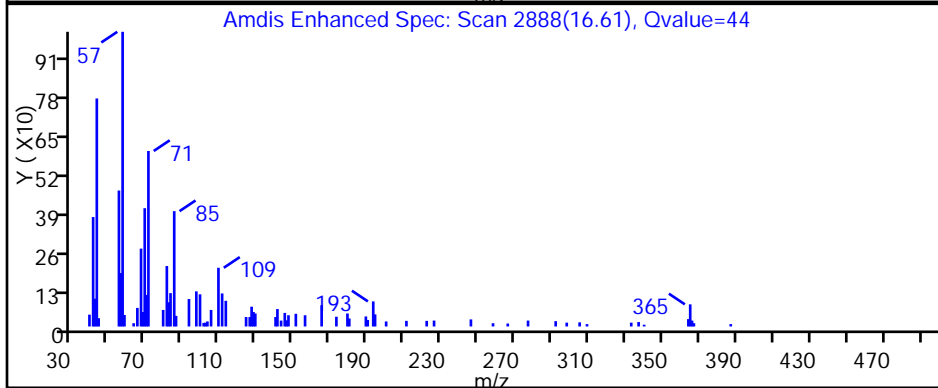
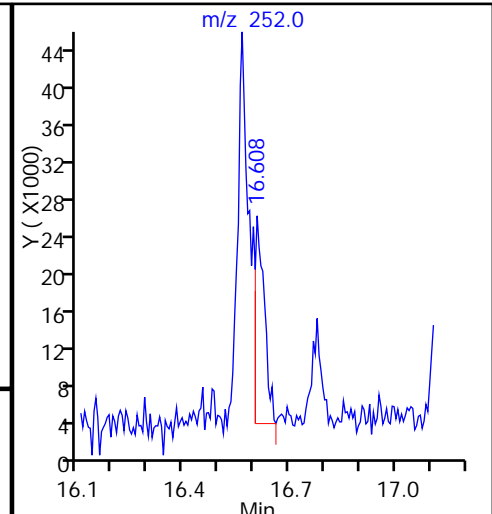
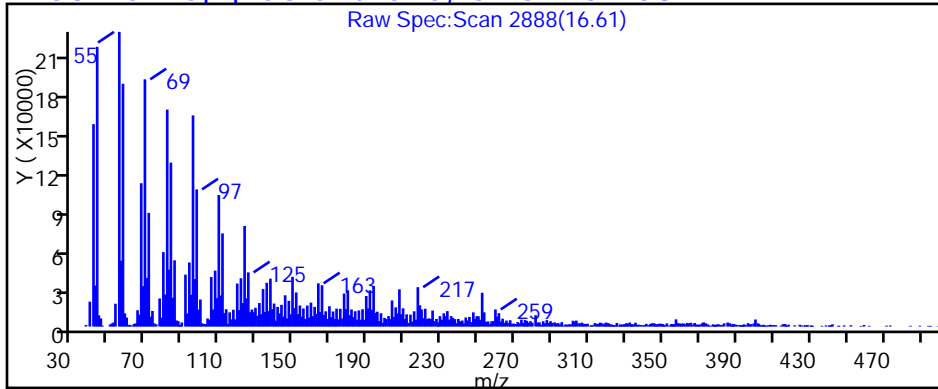
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**153 Benzo[k]fluoranthene, CAS: 207-08-9**



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

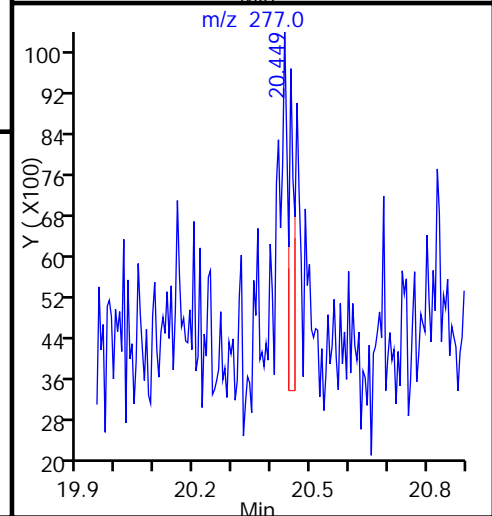
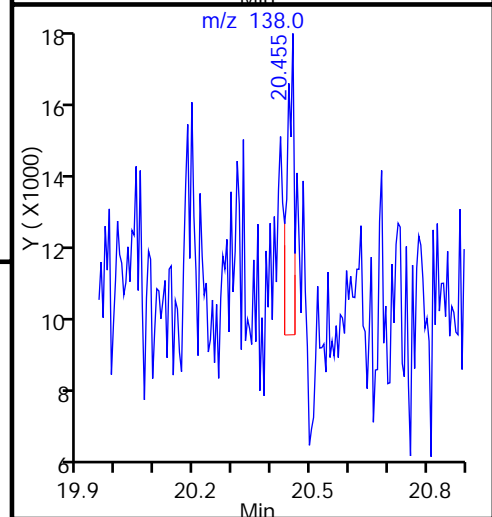
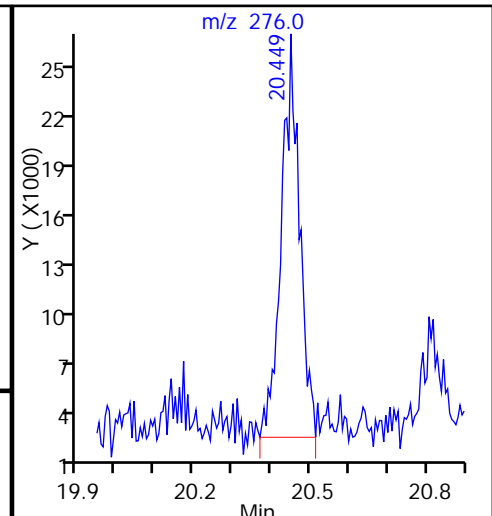
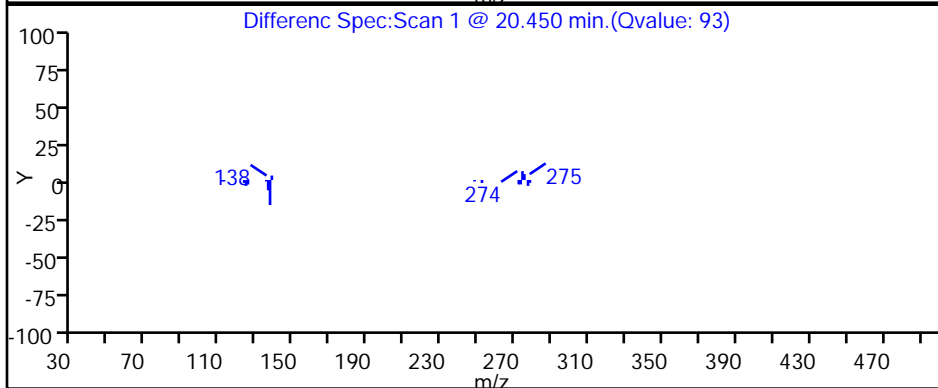
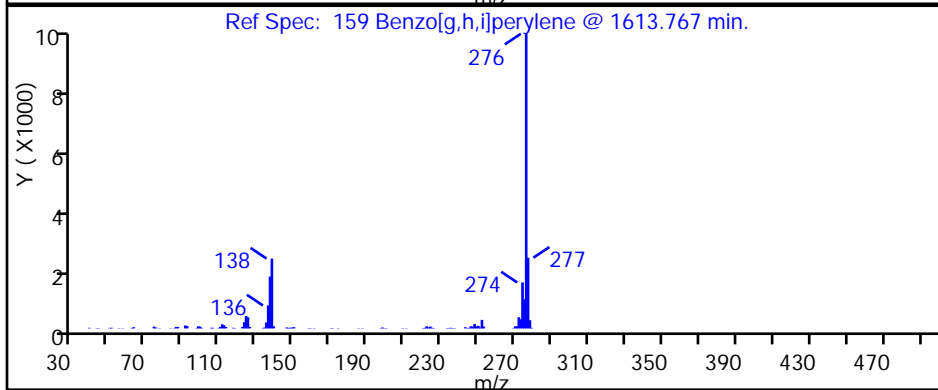
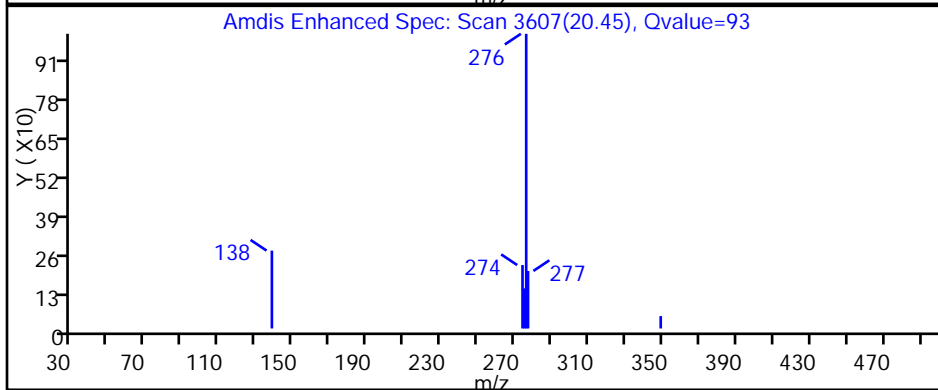
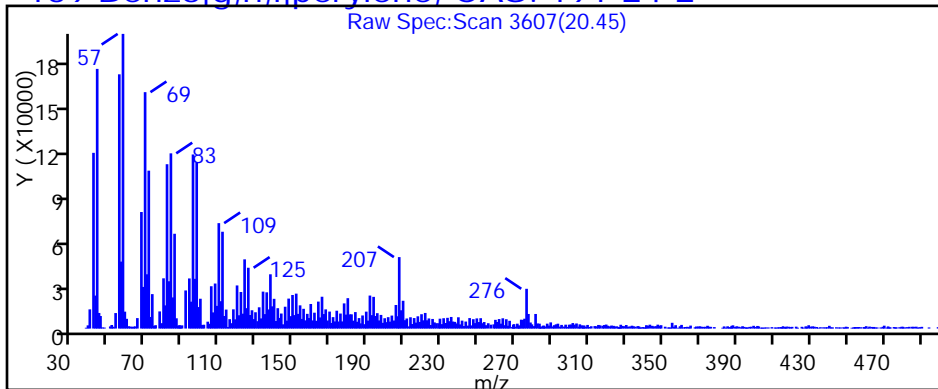
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**159 Benzo[g,h,i]perylene, CAS: 191-24-2**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

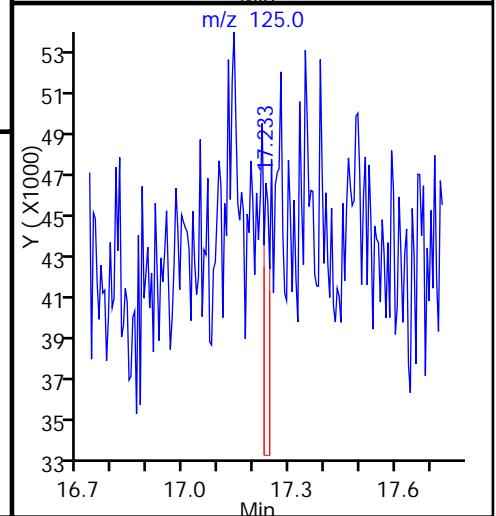
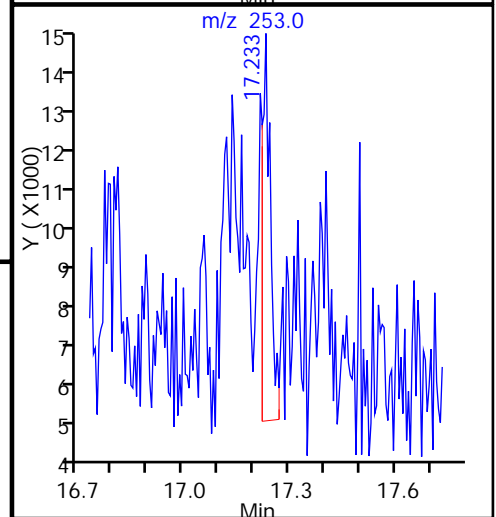
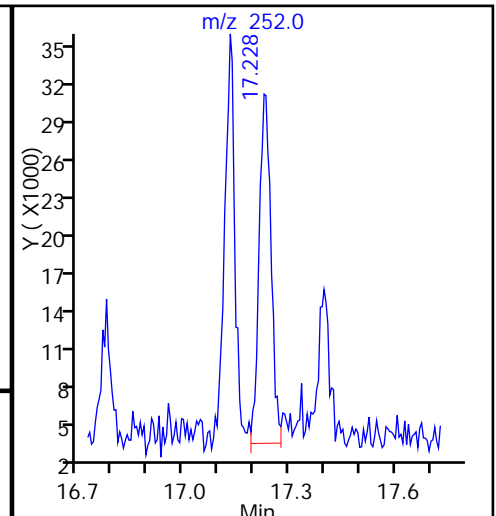
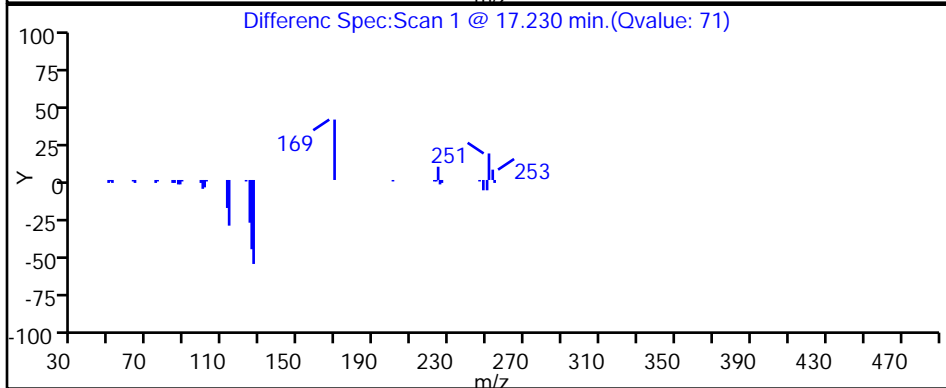
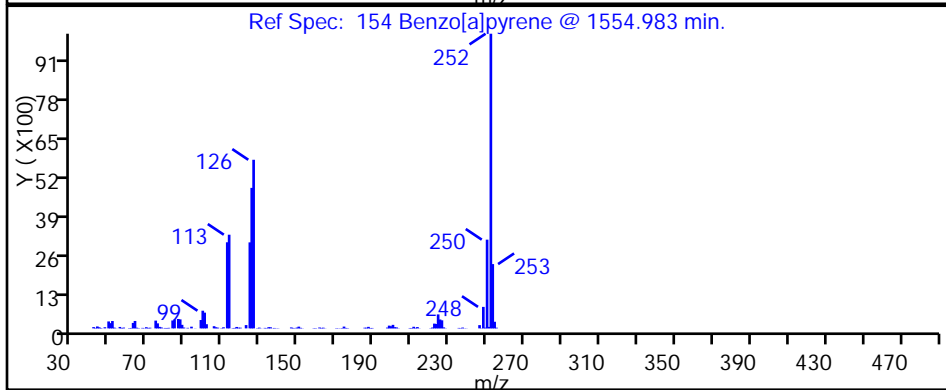
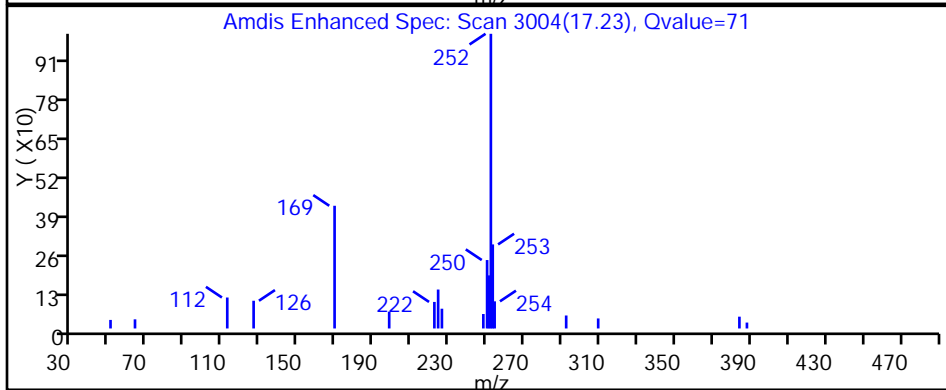
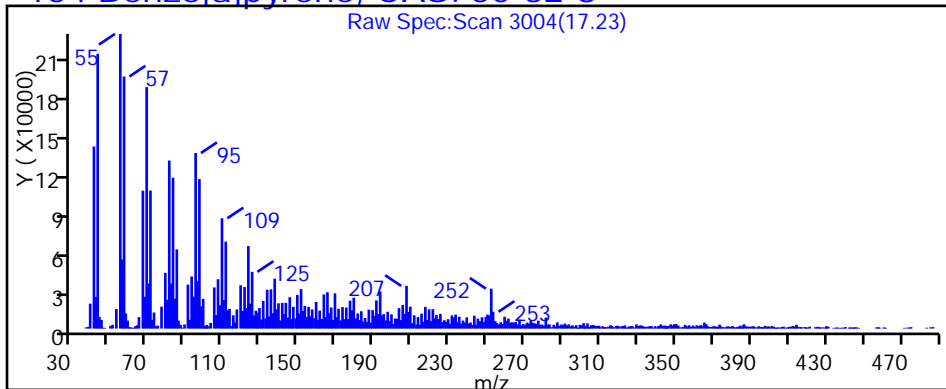
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**154 Benzo[a]pyrene, CAS: 50-32-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

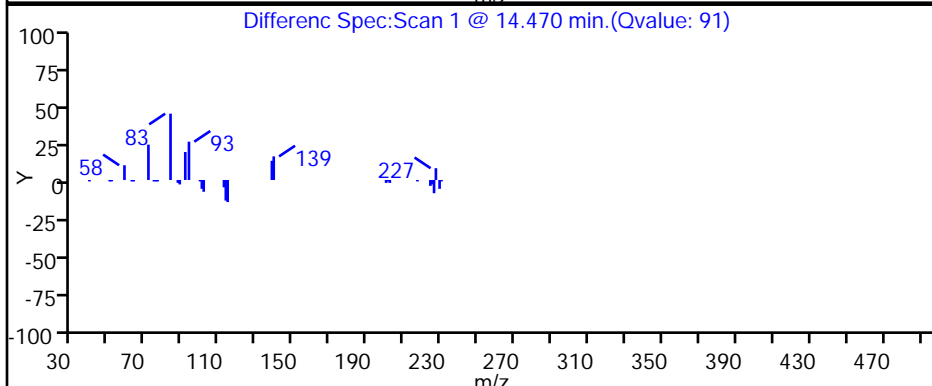
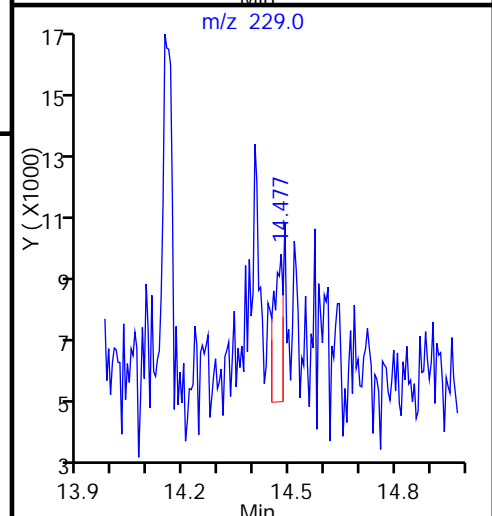
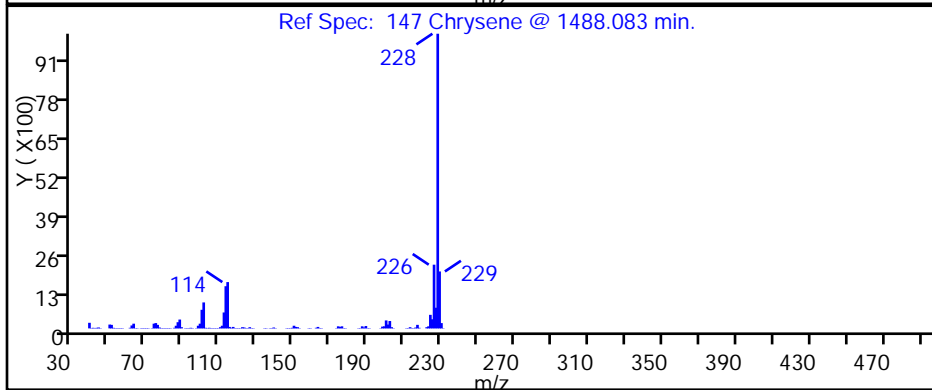
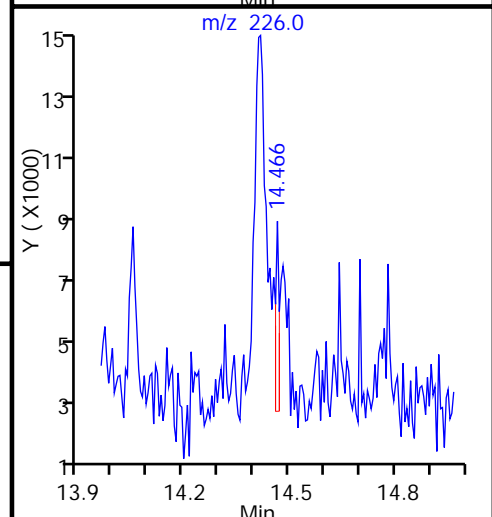
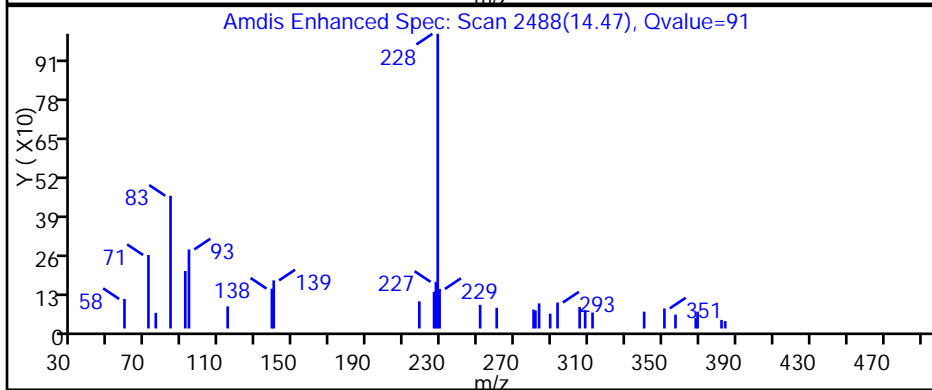
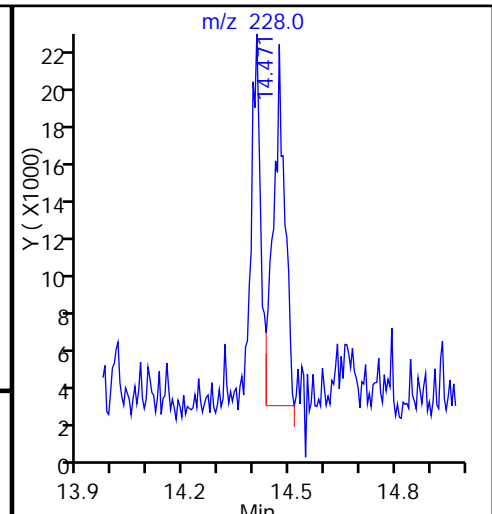
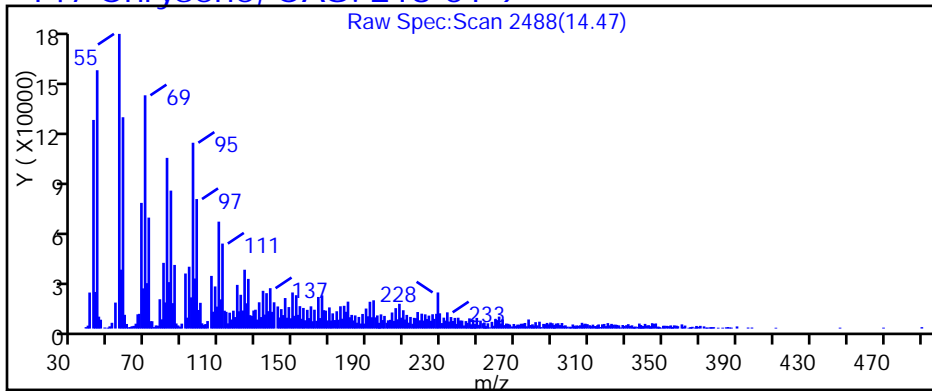
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**147 Chrysene, CAS: 218-01-9**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

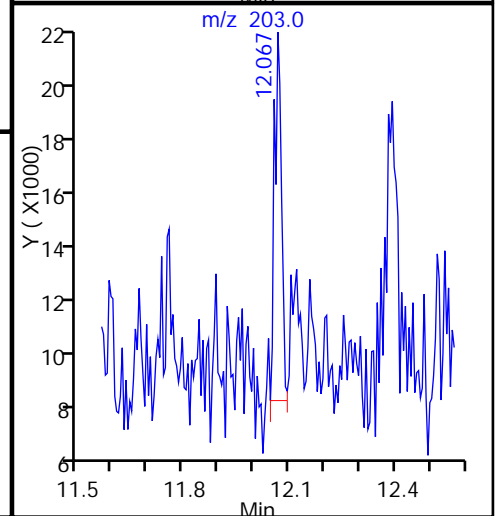
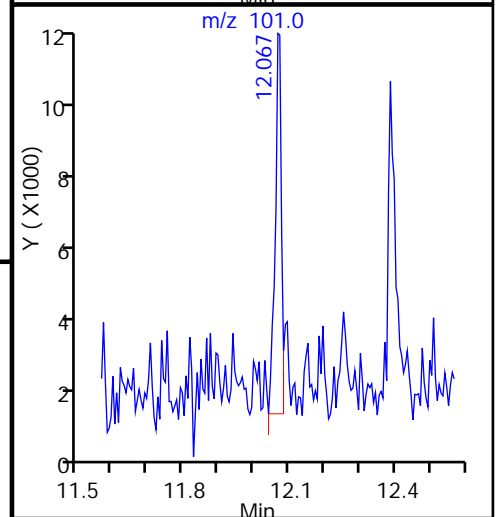
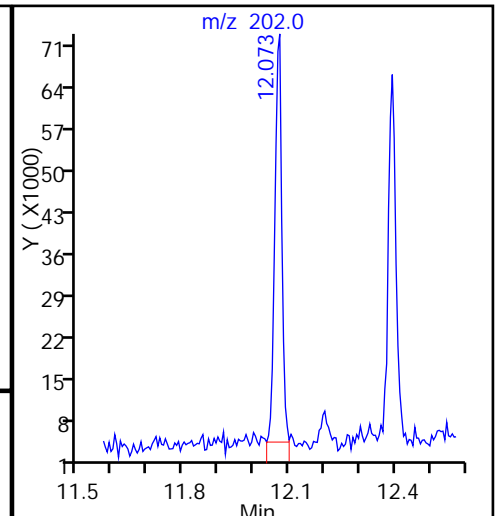
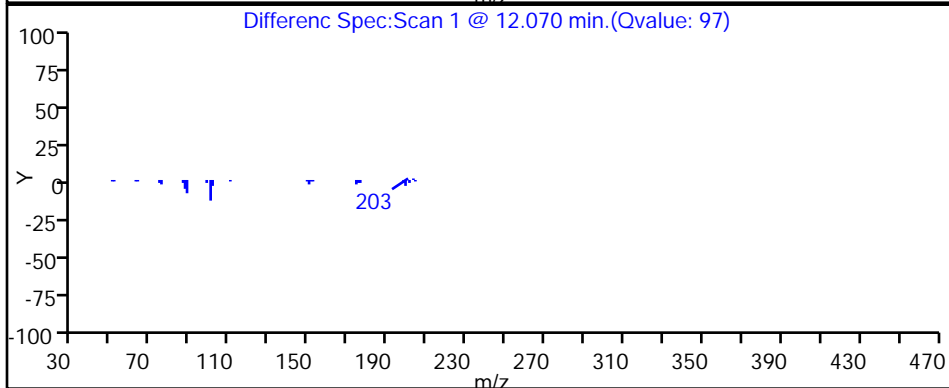
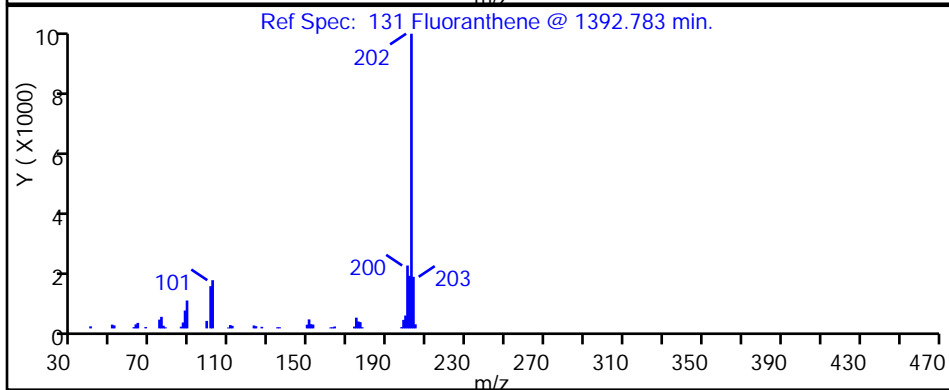
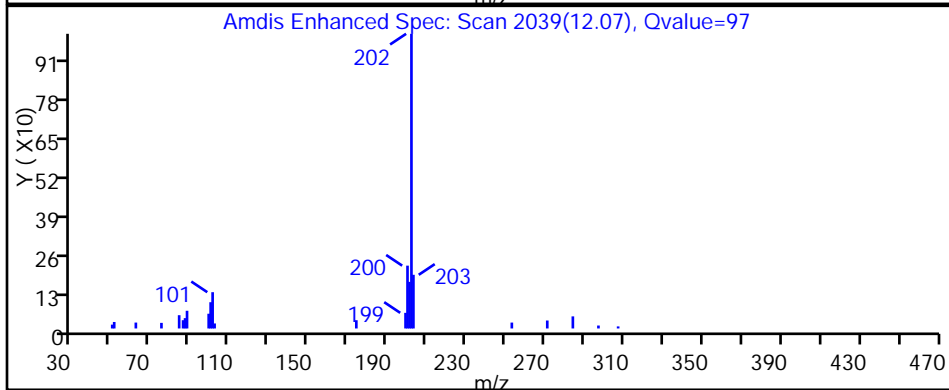
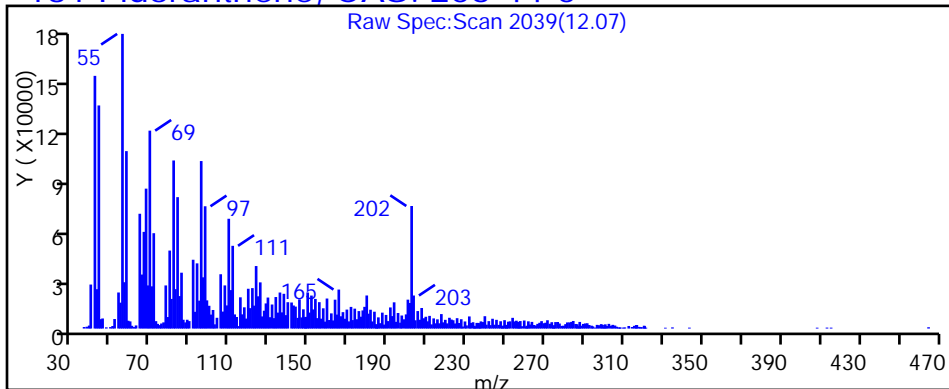
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**131 Fluoranthene, CAS: 206-44-0**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

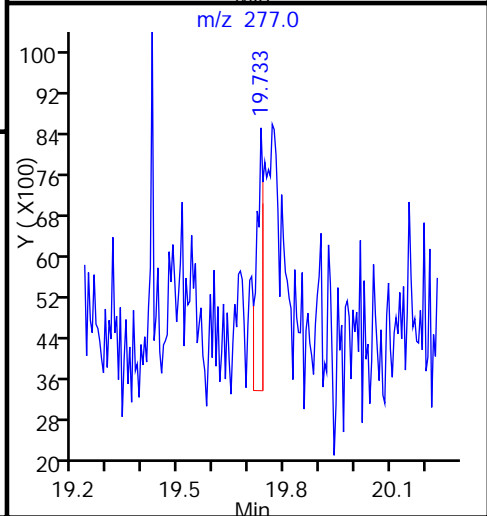
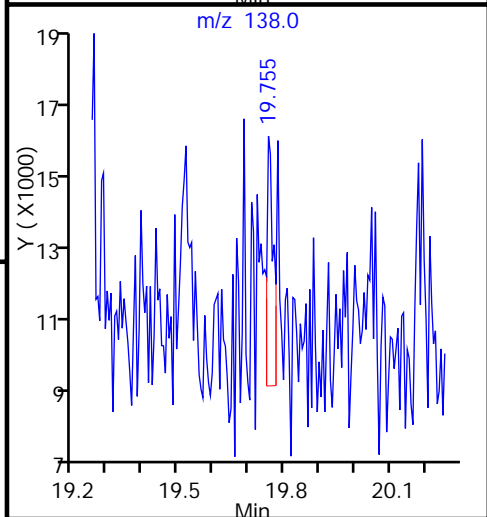
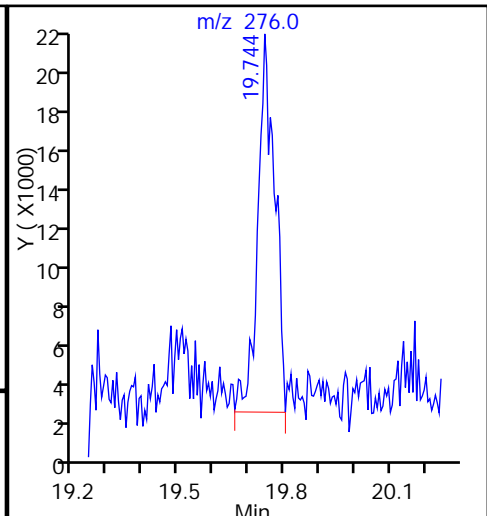
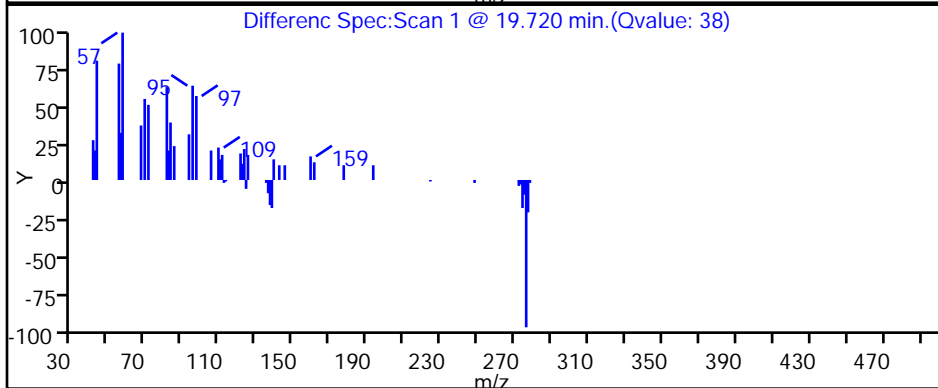
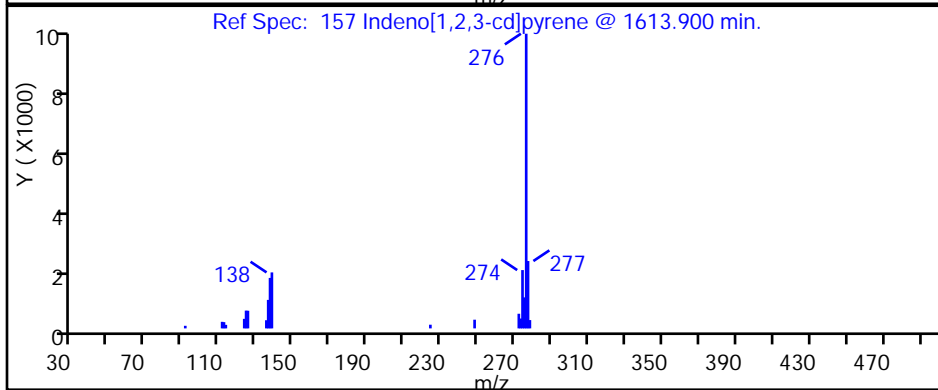
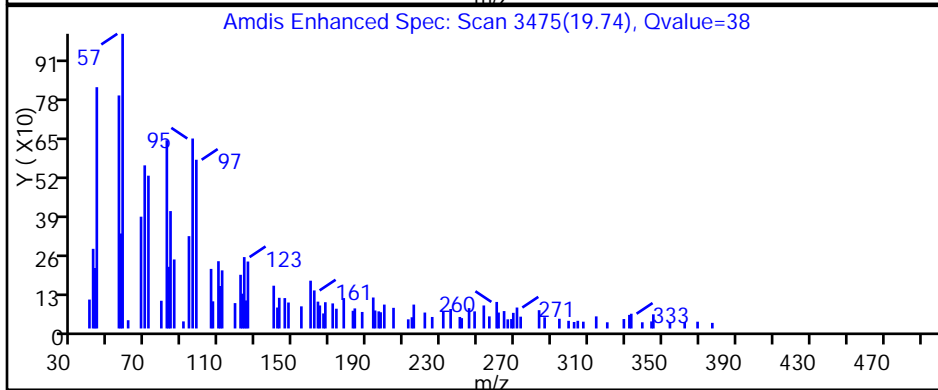
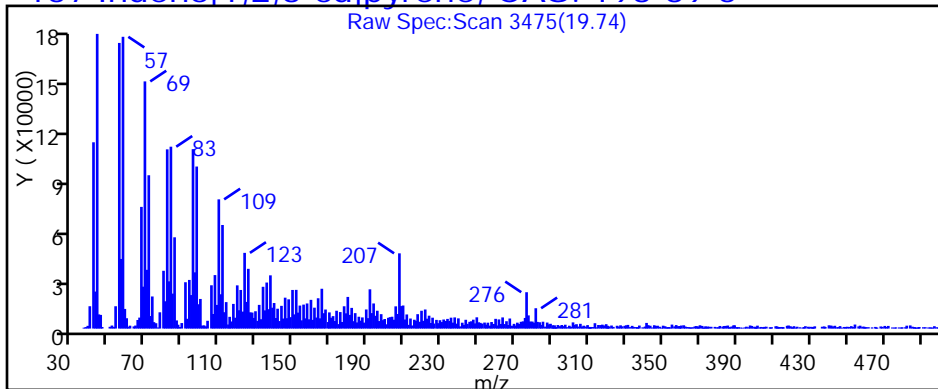
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

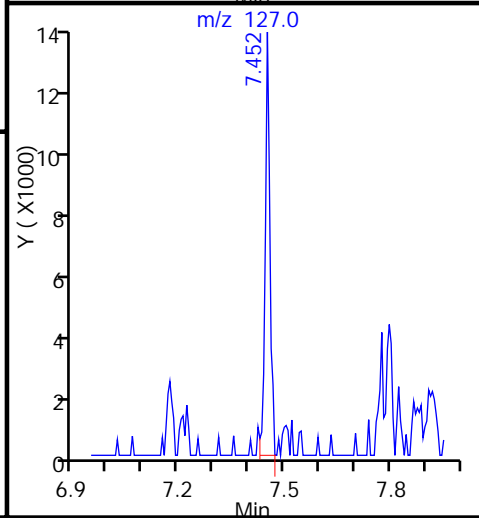
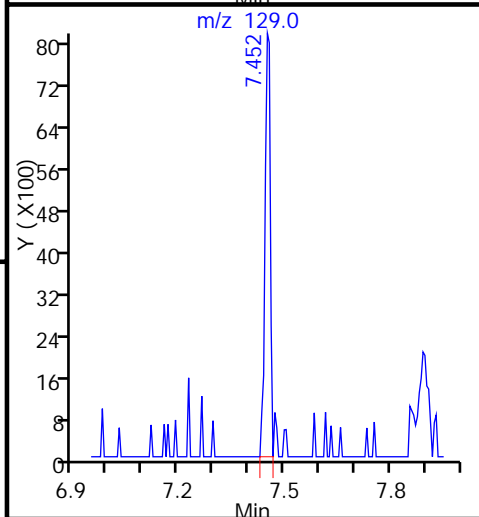
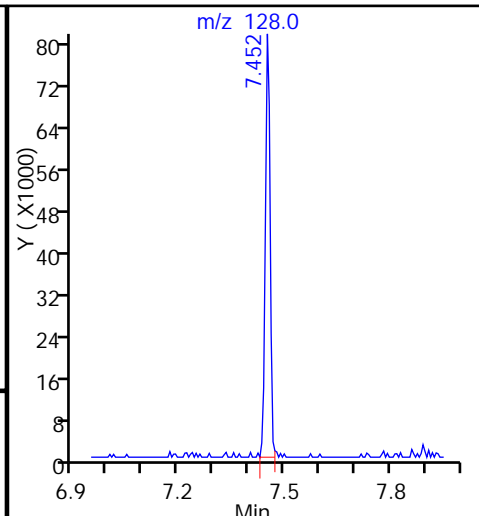
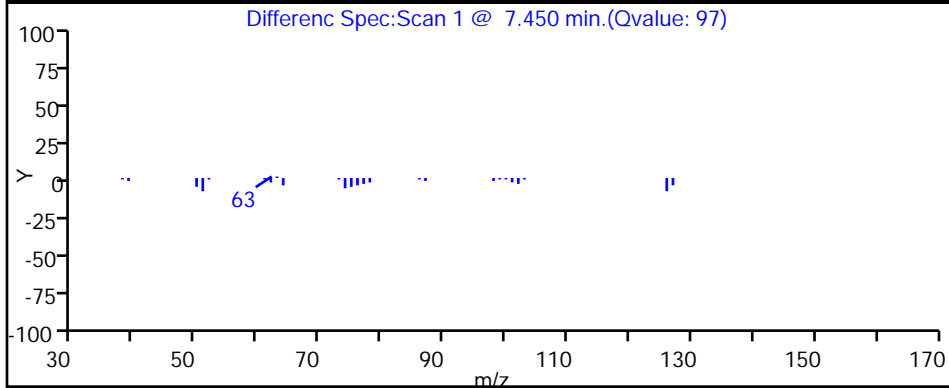
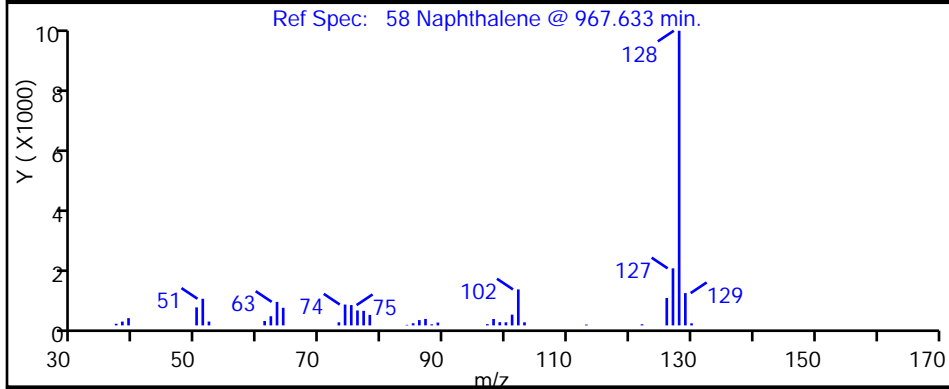
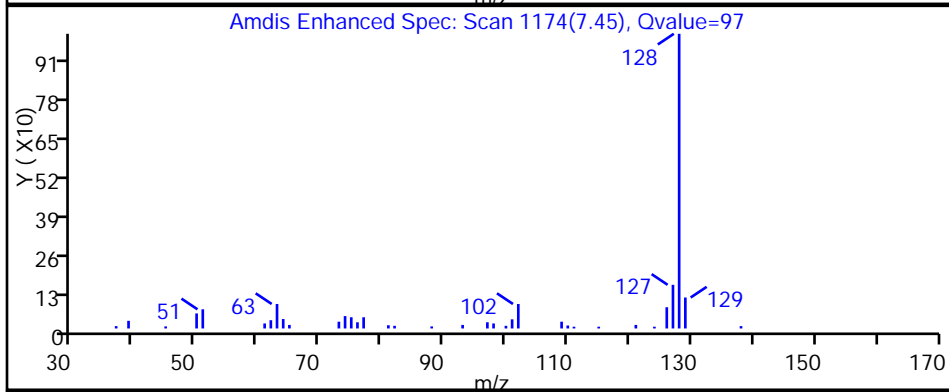
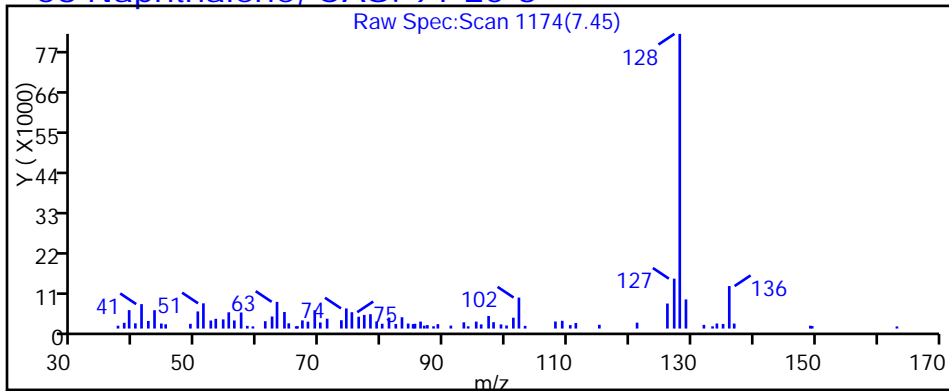
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**58 Naphthalene, CAS: 91-20-3**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

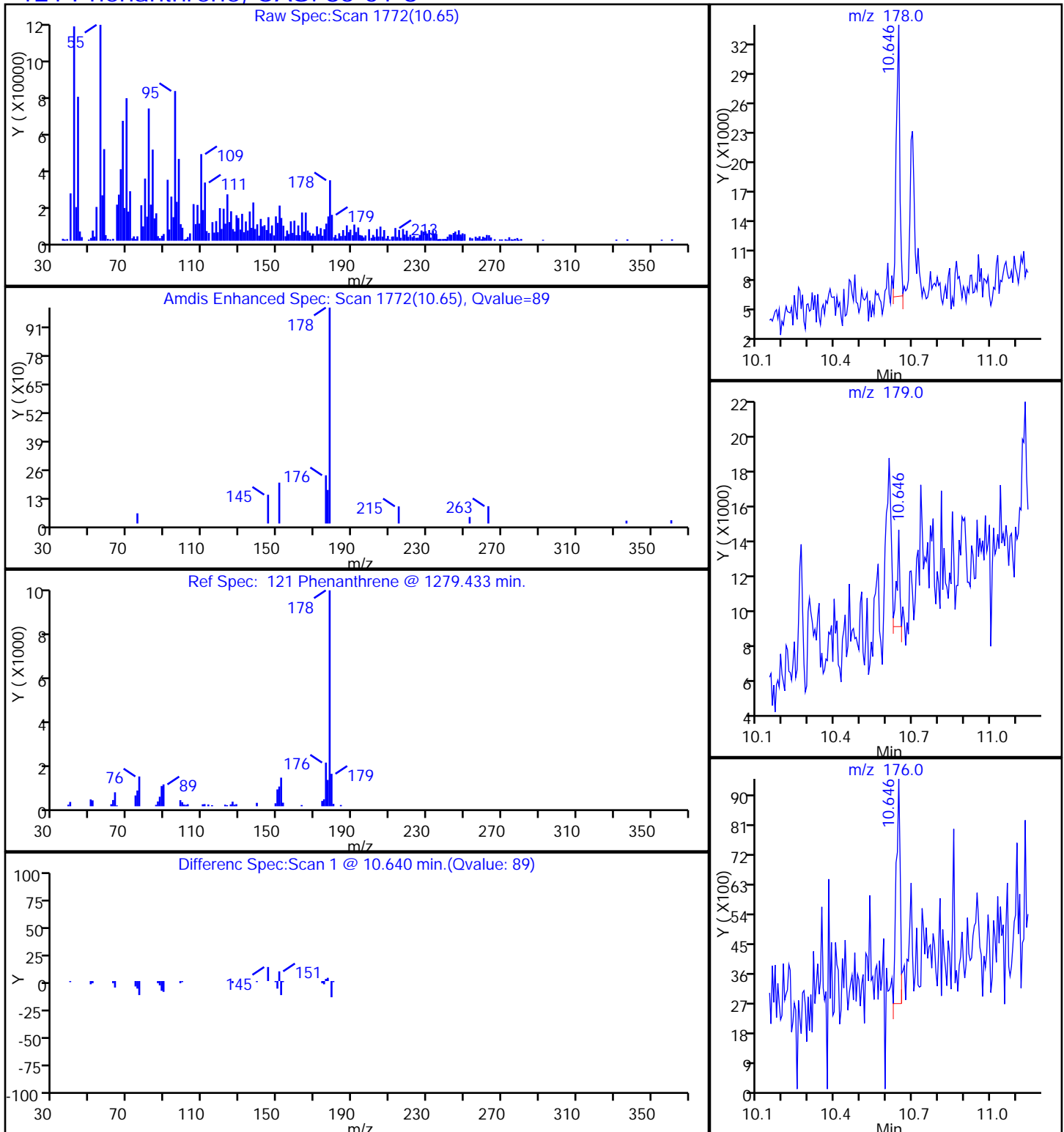
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**121 Phenanthrene, CAS: 85-01-8**

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D

Injection Date: 31-Oct-2014 23:14:30

Instrument ID: CH732

Lims ID: 180-37750-A-9-A

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 003200

ALS Bottle#: 29

Worklist Smp#: 30

Injection Vol: 2.0 ul

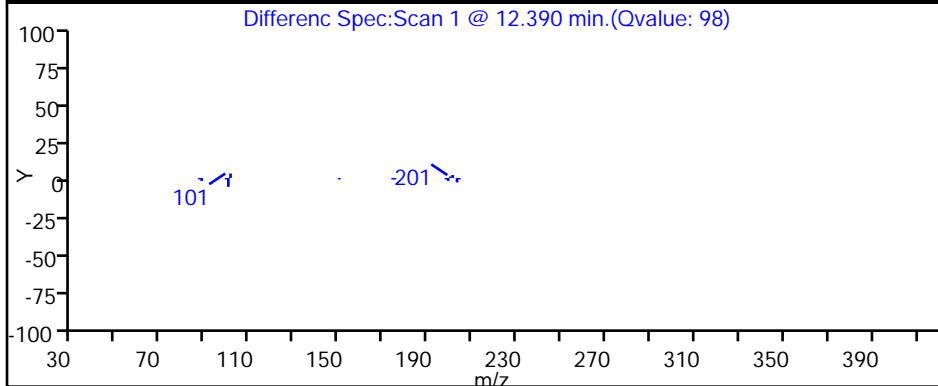
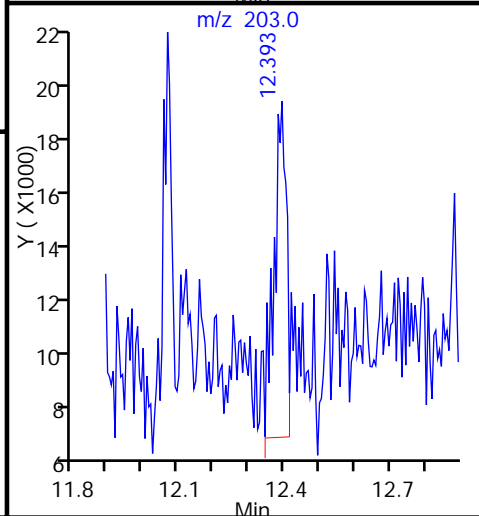
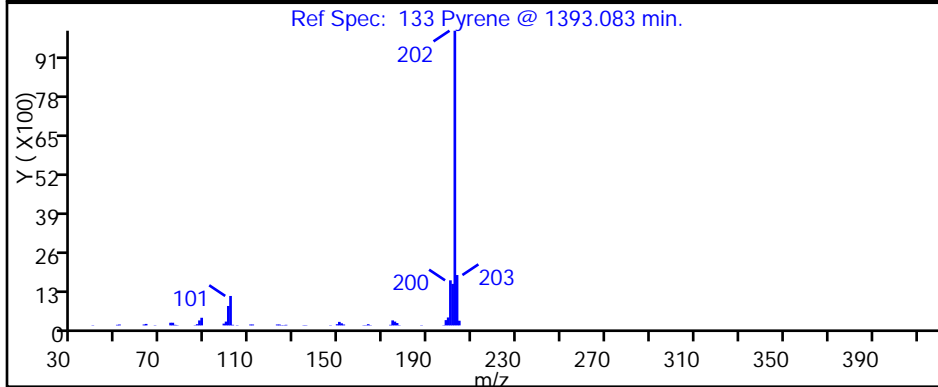
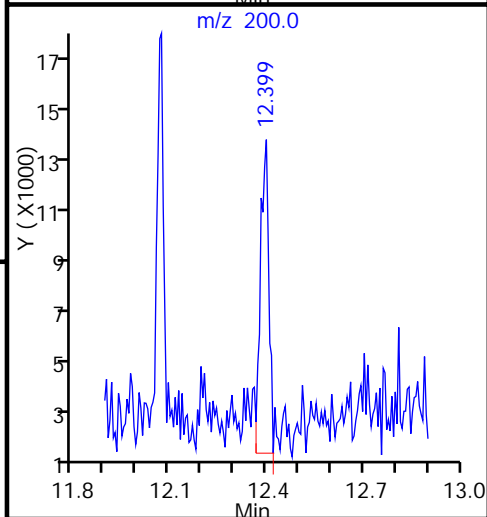
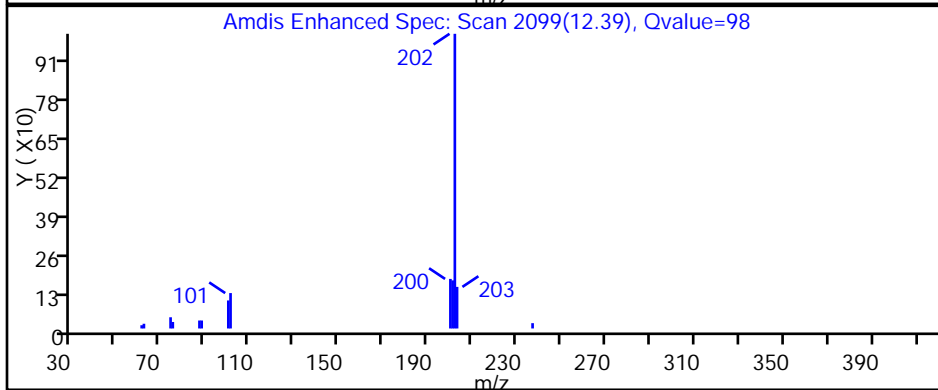
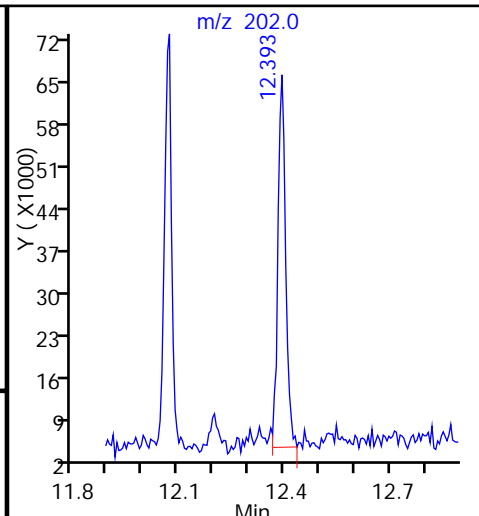
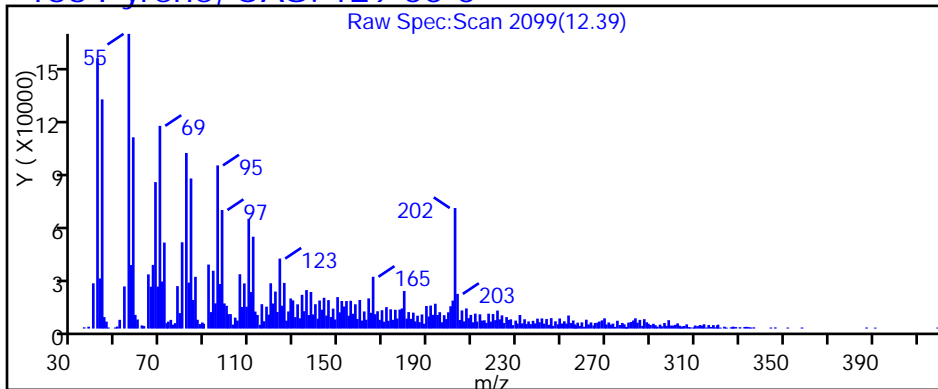
Dil. Factor: 25.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

**133 Pyrene, CAS: 129-00-0**



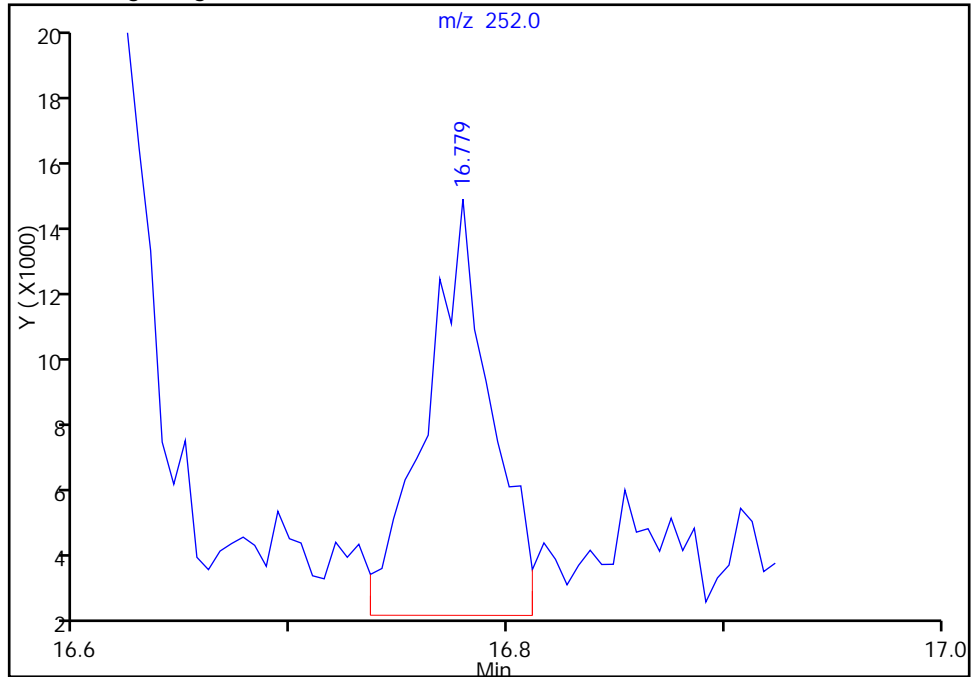
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D		
Injection Date:	31-Oct-2014 23:14:30	Instrument ID:	CH732
Lims ID:	180-37750-A-9-A	Lab Sample ID:	180-37750-9
Client ID:	SD-C03		
Operator ID:	003200	ALS Bottle#:	29
Injection Vol:	2.0 ul	Dil. Factor:	25.0000
Method:	BNA_CH732	Limit Group:	BNA 8270D ICAL
Column:	Rxi-5SilMS (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	30

## 153 Benzo[k]fluoranthene, CAS: 207-08-9

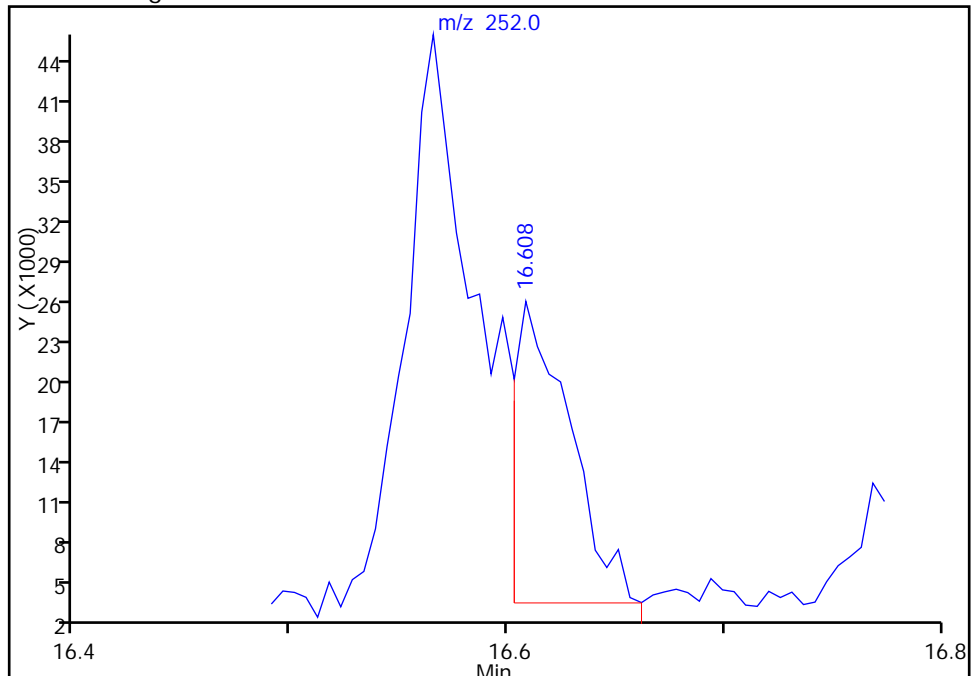
RT: 16.78  
Response: 26126  
Amount: 0.205407

## Processing Integration Results



RT: 16.61  
Response: 39670  
Amount: 0.311893

## Manual Integration Results



Reviewer: piccolinov, 01-Nov-2014 12:47:30  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

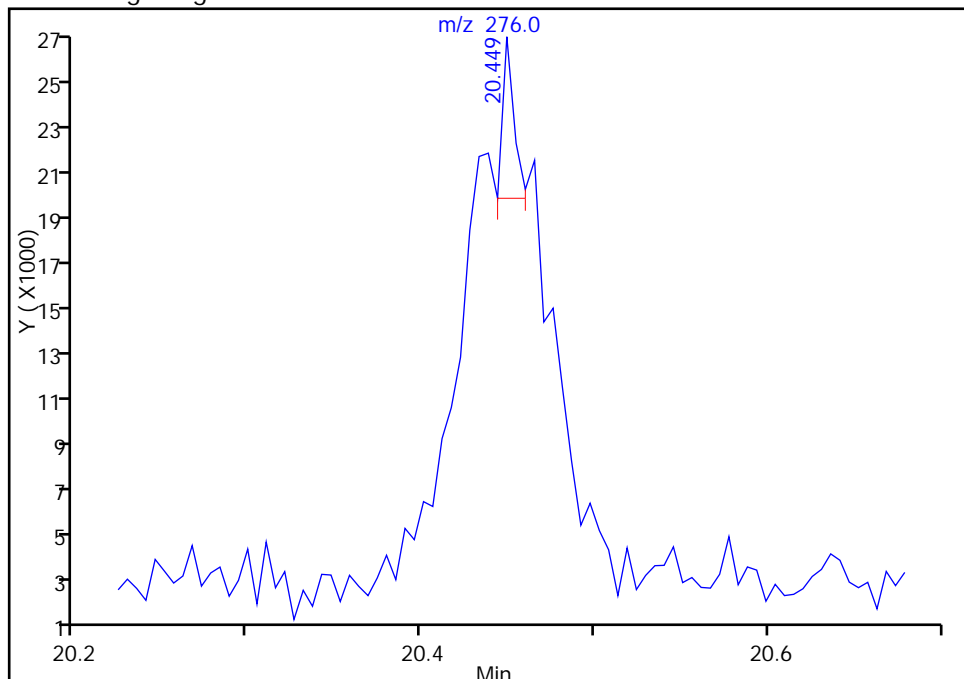
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D		
Injection Date:	31-Oct-2014 23:14:30	Instrument ID:	CH732
Lims ID:	180-37750-A-9-A	Lab Sample ID:	180-37750-9
Client ID:	SD-C03		
Operator ID:	003200	ALS Bottle#:	29
Injection Vol:	2.0 ul	Dil. Factor:	25.0000
Method:	BNA_CH732	Limit Group:	BNA 8270D ICAL
Column:	Rxi-5SilMS (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	30

## 159 Benzo[g,h,i]perylene, CAS: 191-24-2

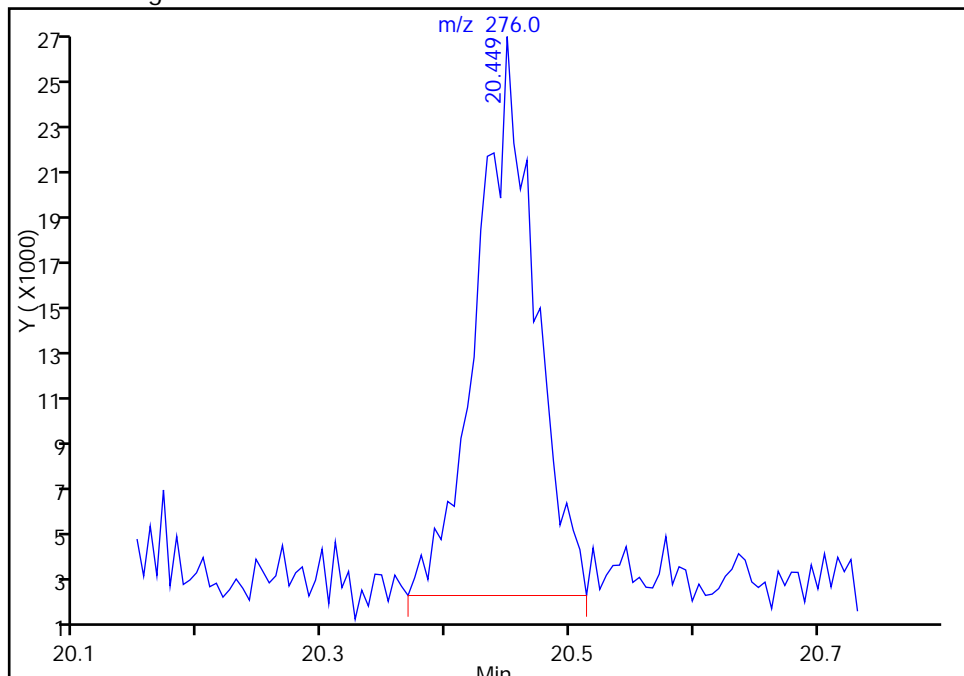
RT: 20.45  
Response: 3073  
Amount: 0.030018

## Processing Integration Results



RT: 20.45  
Response: 76930  
Amount: 0.751477

## Manual Integration Results



Reviewer: piccolinov, 01-Nov-2014 12:47:30  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

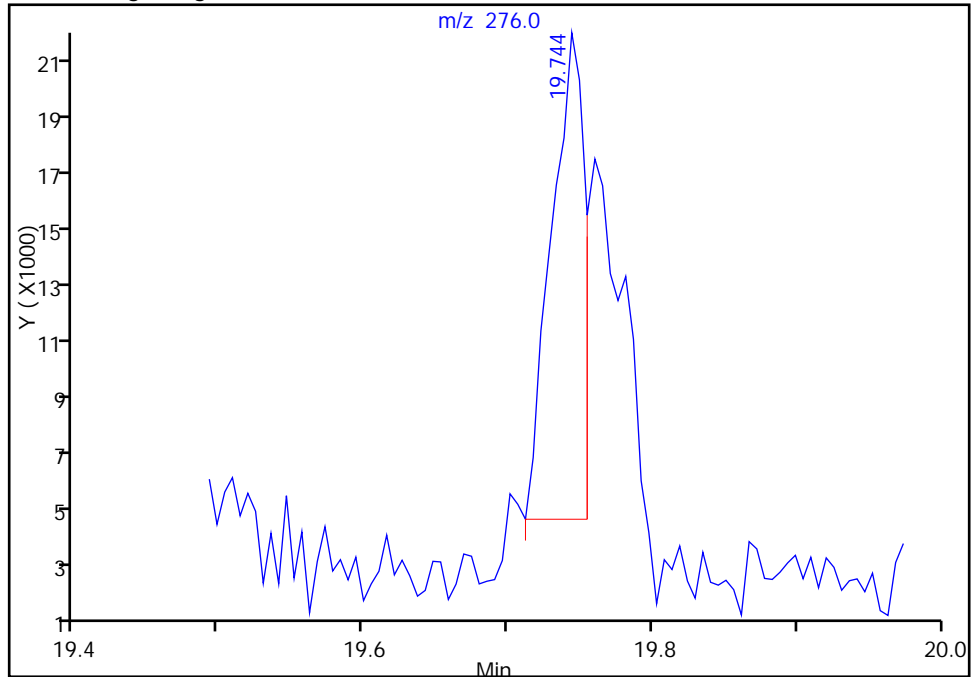
## TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CH732\20141031-4118.b\D1031030.D		
Injection Date:	31-Oct-2014 23:14:30	Instrument ID:	CH732
Lims ID:	180-37750-A-9-A	Lab Sample ID:	180-37750-9
Client ID:	SD-C03		
Operator ID:	003200	ALS Bottle#:	29
Injection Vol:	2.0 ul	Dil. Factor:	25.0000
Method:	BNA_CH732	Limit Group:	BNA 8270D ICAL
Column:	Rxi-5SilMS (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	30

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

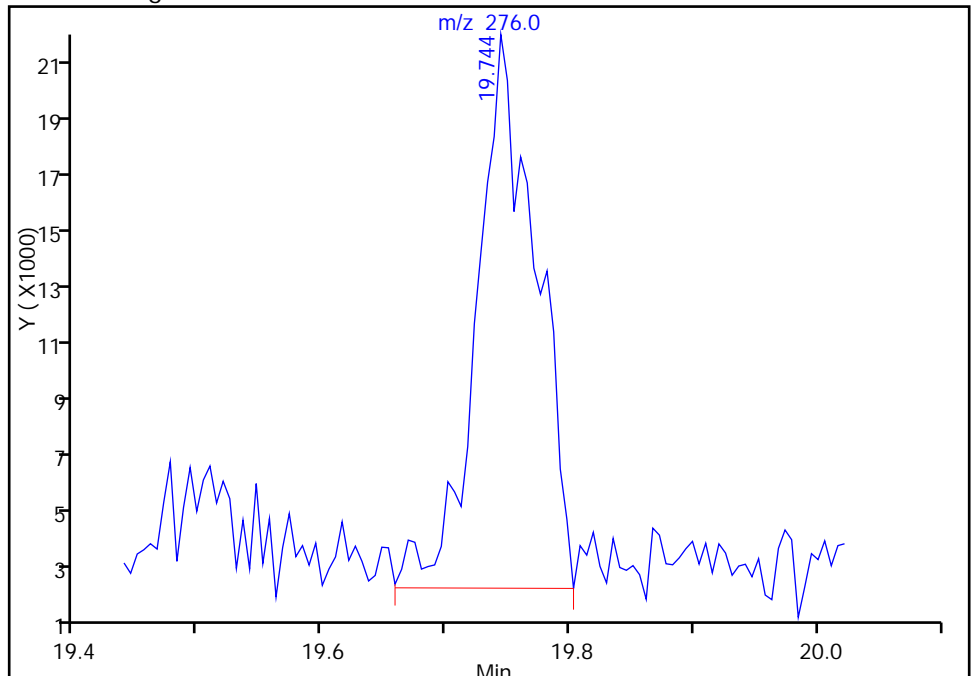
## Processing Integration Results

RT: 19.74  
Response: 26624  
Amount: 0.220519



## Manual Integration Results

RT: 19.74  
Response: 64275  
Amount: 0.532371



Reviewer: piccolinov, 01-Nov-2014 12:47:30  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-116278/3	V0828003.D
Level 2	IC 180-116278/4	V0828004.D
Level 3	IC 180-116278/5	V0828005.D
Level 4	ICIS 180-116278/6	V0828006.D
Level 5	IC 180-116278/7	V0828007.D
Level 6	IC 180-116278/8	V0828008.D
Level 7	IC 180-116278/9	V0828009.D
Level 8	IC 180-116278/10	V0828010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,4-Dioxane	0.5411 0.3858	0.3986 0.3805	0.4214 0.3865	0.4256	0.3964	Ave		0.4170			0.0100	13.0		20.0			
N-Nitrosodimethylamine	0.5694 0.5287	0.5404 0.5362	0.5304 0.5362	0.5425	0.5598	Ave		0.5429			0.0100	2.6		20.0			
Pyridine	1.1342 1.0386	0.9748 1.0102	1.0276 1.0048	1.0584	1.0379	Ave		1.0358			0.0100	4.6		20.0			
Methyl methanesulfonate	0.9158 0.6961	0.6832 0.6959	0.7452 0.6829	0.7458	0.7397	Ave		0.7381			0.0100	10.0		20.0			
Benzaldehyde	1.0879 0.8862	0.8318 0.8084	0.9760 0.7320	0.8972	0.9558	Ave		0.8969			0.0100	12.0		20.0			
Phenol	2.0462 1.6567	1.7363 1.6324	1.7350 1.5957	1.7265	1.7412	Ave		1.7337			0.8000	8.0		20.0			
Aniline	2.0576 1.8985	1.8912 1.8879	2.0454 1.8417	2.0017	2.0009	Ave		1.9531			0.0100	4.2		20.0			
Bis(2-chloroethyl)ether	1.2383 1.1212	1.1855 1.1189	1.2414 1.0986	1.1810	1.1547	Ave		1.1675			0.7000	4.6		20.0			
2-Chlorophenol	1.3902 1.3570	1.2098 1.3221	1.3798 1.3058	1.3721	1.3670	Ave		1.3380			0.8000	4.4		20.0			
n-Decane	1.4703 1.1706	1.1454 1.1507	1.2300 1.1547	1.1918	1.1931	Ave		1.2133				8.9		20.0			
1,3-Dichlorobenzene	1.7438 1.4895	1.4849 1.5052	1.5928 1.5036	1.5618	1.5724	Ave		1.5567			0.0100	5.5		20.0			
1,4-Dichlorobenzene	1.7490 1.5305	1.5063 1.5471	1.5801 1.5200	1.5706	1.5888	Ave		1.5741			0.0100	4.9		20.0			
Benzyl alcohol	0.7241 0.8202	0.7407 0.8316	0.8048 0.8195	0.8017	0.8473	Ave		0.7987			0.0100	5.5		20.0			
1,2-Dichlorobenzene	1.8859 1.4385	1.4228 1.4345	1.5069 1.4262	1.5217	1.5203	Ave		1.5196			0.0100	10.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Methylphenol	1.1255 1.1990	1.0999 1.1677	1.2297 1.1467	1.2290	1.2346	Ave		1.1790			0.7000	4.4		20.0			
Indene	2.2938 2.1387	1.9928 2.0928	2.2020 2.0643	2.1782	2.1859	Ave		2.1436			0.0100	4.3		20.0			
2,2'-oxybis[1-chloropropane]	1.7350 1.4681	1.4963 1.4277	1.6172 +++++	1.5473	1.5136	Ave		1.5436			0.0100	6.7		20.0			
N-Nitrosopyrrolidine	0.4290 0.5424	0.4565 0.5456	0.5099 0.5398	0.5512	0.5598	Ave		0.5168			0.0100	9.4		20.0			
N-Nitrosodi-n-propylamine	0.8041 0.8448	0.8302 +++++	0.9091 +++++	0.8822	0.9031	Ave		0.8622			0.5000	4.9		20.0			
Methylphenol, 3 & 4	1.2680 1.2375	1.1369 1.2134	1.2719 1.1765	1.3025	1.3224	Ave		1.2411			0.6000	5.1		20.0			
Acetophenone	1.9453 1.6732	1.7305 1.6230	1.8433 1.5917	1.7758	1.8189	Ave		1.7502			0.0100	6.8		20.0			
Hexachloroethane	0.7222 0.6557	0.6111 0.6428	0.6766 0.6447	0.6525	0.6648	Ave		0.6588			0.3000	4.9		20.0			
Nitrobenzene	0.3652 0.3533	0.3651 0.3506	0.3609 0.3454	0.3633	0.3545	Ave		0.3573			0.2000	2.1		20.0			
Isophorone	0.6055 0.6046	0.5424 0.5969	0.5707 0.5854	0.5896	0.5800	Ave		0.5844			0.4000	3.5		20.0			
2-Nitrophenol	0.1390 0.1817	0.1429 0.1849	0.1669 0.1860	0.1744	0.1732	Ave		0.1686			0.1000	11.0		20.0			
2,4-Dimethylphenol	0.3428 0.3418	0.3618 0.3469	0.3606 0.3326	0.3535	0.3391	Ave		0.3474			0.2000	3.0		20.0			
Benzoic acid	+++++ 0.1540	+++++ 0.1622	0.0579 0.1756	0.0788	0.1107	Qua	-0.541	0.1401	0.0005314		0.0100				0.9990		0.9900
Bis(2-chloroethoxy)methane	0.4071 0.3573	0.3804 0.3630	0.3638 0.3544	0.3700	0.3523	Ave		0.3685			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2403 0.2934	0.2697 0.2955	0.2864 0.2889	0.2925	0.2826	Ave		0.2812			0.2000	6.6		20.0			
1,2,4-Trichlorobenzene	0.3601 0.3218	0.3336 0.3199	0.3359 0.3195	0.3218	0.3138	Ave		0.3283			0.0100	4.5		20.0			
Naphthalene	1.1747 1.0377	1.0919 1.0389	1.0303 1.0364	1.0272	0.9957	Ave		1.0541			0.7000	5.3		20.0			
4-Chloroaniline	0.4185 0.4312	0.3979 0.4249	0.4192 0.4323	0.4246	0.4196	Ave		0.4210			0.0100	2.5		20.0			
2,6-Dichlorophenol	0.2685 0.2870	0.2616 0.2855	0.2794 0.2848	0.2869	0.2784	Ave		0.2790			0.0100	3.4		20.0			
Hexachlorobutadiene	0.2118 0.1939	0.1973 0.1934	0.1968 0.1903	0.1947	0.1851	Ave		0.1954			0.0100	3.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	++++ 0.0872	0.0555 0.0852	0.0637 0.0886	0.0774	0.0771	Ave		0.0764			0.0100	16.0		20.0			
4-Chloro-3-methylphenol	0.2648 0.2940	0.2517 0.2923	0.2840 0.2890	0.2915	0.2867	Ave		0.2818			0.2000	5.4		20.0			
2-Methylnaphthalene	0.7888 0.7018	0.7133 0.6978	0.7076 0.7012	0.6940	0.6757	Ave		0.7100			0.4000	4.7		20.0			
1-Methylnaphthalene	0.7448 0.6536	0.6435 0.6474	0.6747 0.6506	0.6587	0.6289	Ave		0.6628			0.0100	5.4		20.0			
Hexachlorocyclopentadiene	0.3438 0.4182	0.3407 0.4173	0.3808 0.4174	0.3920	0.4115	Ave		0.3902			0.0500	8.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.6706 0.5522	0.6166 0.5366	0.5566 0.5304	0.5843	0.5512	Ave		0.5748			0.0100	8.3		20.0			
2,4,6-Trichlorophenol	0.2962 0.3601	0.2788 0.3638	0.3118 0.3740	0.3488	0.3526	Ave		0.3358			0.2000	10.0		20.0			
2,4,5-Trichlorophenol	0.3273 0.3790	0.3090 0.3881	0.3598 0.3908	0.3854	0.3783	Ave		0.3647			0.2000	8.4		20.0			
1,1'-Biphenyl	1.5963 1.4425	1.4502 1.4361	1.4485 1.4560	1.4578	1.4278	Ave		1.4644			0.0100	3.7		20.0			
2-Chloronaphthalene	1.3395 1.2238	1.2932 1.1590	1.2067 1.3015	1.1940	1.2079	Ave		1.2407			0.8000	5.1		20.0			
2-Nitroaniline	0.2331 0.3257	0.2900 0.3163	0.2971 0.3237	0.3245	0.3213	Ave		0.3040			0.0100	10.0		20.0			
Dimethyl phthalate	1.1947 1.1831	1.1340 1.1883	1.1764 1.2045	1.2203	1.1766	Ave		1.1847			0.0100	2.1		20.0			
1,3-Dinitrobenzene	++++ 0.1976	0.1440 0.1976	0.1662 0.2032	0.1927	0.1871	Ave		0.1841			0.0100	12.0		20.0			
2,6-Dinitrotoluene	0.2030 0.2728	0.2372 0.2776	0.2808 0.2888	0.2786	0.2738	Ave		0.2641			0.2000	11.0		20.0			
Acenaphthylene	1.6961 1.7532	1.6739 1.7661	1.6734 1.8351	1.7340	1.7302	Ave		1.7328			0.9000	3.1		20.0			
3-Nitroaniline	0.2427 0.3054	0.2523 0.3046	0.2758 0.3147	0.2941	0.3031	Ave		0.2866			0.0100	9.3		20.0			
2,4-Dinitrophenol	++++ 0.1665	0.0464 0.1738	0.0661 0.1816	0.1087	0.1412	Lin1	-0.766	0.1786			0.0100				0.9940		0.9900
Acenaphthene	1.2819 1.0890	1.1433 1.0647	1.0911 1.0830	1.1326	1.0971	Ave		1.1228			0.9000	6.2		20.0			
4-Nitrophenol	++++ 0.1977	0.1423 0.1909	0.1606 0.1972	0.1935	0.1925	Ave		0.1821			0.0100	12.0		20.0			
2,4-Dinitrotoluene	++++ 0.3729	0.2665 0.3718	0.3366 0.3718	0.3673	0.3687	Ave		0.3508			0.2000	11.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.9335 1.6424	1.6073 1.6302	1.6176 1.6560	1.6416	1.6171	Ave		1.6682			0.8000	6.5		20.0			
2,3,5,6-Tetrachlorophenol	++++ 0.3353	0.2414 0.3412	0.2735 0.3533	0.3098	0.3247	Ave		0.3113			0.0100	13.0		20.0			
2,3,4,6-Tetrachlorophenol	++++ 0.3402	0.2667 0.3344	0.3006 0.3442	0.3279	0.3214	Ave		0.3193			0.0100	8.6		20.0			
2-Naphthylamine	1.0389 1.1292	1.0203 1.1267	1.0732 1.1431	1.1437	1.1315	Ave		1.1008			0.0100	4.5		20.0			
Diethyl phthalate	1.2120 1.1901	1.1645 1.1664	1.1711 1.1577	1.2111	1.1805	Ave		1.1817			0.0100	1.8		20.0			
Hexadecane	0.4161 0.4068	0.3905 0.3897	0.3994 0.3870	0.4068	0.3938	Ave		0.3988				2.6		20.0			
4-Chlorophenyl phenyl ether	0.6894 0.6379	0.6214 0.6307	0.6041 0.6446	0.6345	0.6190	Ave		0.6352			0.4000	4.0		20.0			
4-Nitroaniline	++++ 0.3100	0.2420 0.3022	0.2601 0.3158	0.2924	0.2963	Ave		0.2884			0.0100	9.4		20.0			
Fluorene	1.3899 1.2979	1.2471 1.2643	1.2679 1.2819	1.2886	1.2680	Ave		1.2882			0.9000	3.4		20.0			
4,6-Dinitro-2-methylphenol	++++ 0.1393	0.0653 0.1447	0.0828 0.1489	0.1119	0.1255	Lin2	-0.337	0.1399			0.0100				0.9920		0.9900
N-Nitrosodiphenylamine	0.5915 0.5959	0.5632 0.6042	0.5846 0.6037	0.5902	0.5917	Ave		0.5906			0.0100	2.2		20.0			
1,2-Diphenylhydrazine (as Azobenzene)	0.8177 0.8187	0.8331 0.8061	0.8285 0.7876	0.8454	0.8366	Ave		0.8217			0.0100	2.2		20.0			
4-Bromophenyl phenyl ether	0.2360 0.2249	0.2110 0.2258	0.2166 0.2262	0.2244	0.2228	Ave		0.2234			0.1000	3.3		20.0			
Hexachlorobenzene	0.2448 0.2416	0.2293 0.2420	0.2343 0.2392	0.2263	0.2375	Ave		0.2369			0.1000	2.7		20.0			
Atrazine	0.1622 0.2232	0.1920 0.2181	0.2018 0.2134	0.2134	0.2178	Ave		0.2052			0.0100	9.8		20.0			
Pentachlorophenol	0.0589 0.1496	0.0799 0.1515	0.1052 0.1497	0.1211	0.1395	Lin1	-0.136	0.1488			0.0500				0.9970		0.9900
n-Octadecane	++++ 1.6276	1.3973 ++++	1.5708 ++++	1.6240	1.6500	Ave		1.5739				6.5		20.0			
Phenanthrene	1.3238 1.1425	1.1451 1.1361	1.1507 1.1276	1.1477	1.1352	Ave		1.1636			0.7000	5.6		20.0			
Anthracene	1.2077 1.2032	1.0859 1.1944	1.1285 1.2065	1.1689	1.1829	Ave		1.1723			0.7000	3.7		20.0			
Carbazole	0.9667 1.0777	0.9884 1.0801	1.0149 1.1028	1.0296	1.0488	Ave		1.0386			0.0100	4.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.0068 1.2501	1.0417 1.2437	1.0683 1.2548	1.1827	1.2102	Ave		1.1573			0.0100	8.8		20.0			
Fluoranthene	1.1839 1.2237	1.1354 1.2075	1.1769 1.2219	1.2038	1.1993	Ave		1.1941			0.6000	2.4		20.0			
Benzidine	++++ 0.5848	++++ 0.5846	0.4094 0.5554	0.4813	0.5480	Ave		0.5273			0.0100	13.0		20.0			
Pyrene	1.3377 1.2500	1.2883 1.2771	1.3136 1.2683	1.2581	1.2485	Ave		1.2802			0.6000	2.5		20.0			
Butyl benzyl phthalate	++++ 0.5032	0.3884 0.5148	0.4216 0.5169	0.4647	0.4884	Ave		0.4711			0.0100	10.0		20.0			
3,3'-Dichlorobenzidine	++++ 0.3919	0.2734 0.4020	0.2968 0.4019	0.3303	0.3612	Ave		0.3511			0.0100	15.0		20.0			
Bis(2-ethylhexyl) phthalate	++++ 0.6831	0.5189 0.7065	0.5334 0.7095	0.6226	0.6455	Ave		0.6314			0.0100	12.0		20.0			
Benzo[a]anthracene	1.1861 1.0692	1.0184 1.0958	1.0723 1.1094	1.0821	1.0430	Ave		1.0845			0.8000	4.6		20.0			
Chrysene	1.0862 1.0431	1.0045 1.0684	1.0475 1.0770	1.0384	1.0103	Ave		1.0469			0.7000	2.8		20.0			
Di-n-octyl phthalate	1.2152 1.4295	1.1119 1.4169	1.1058 1.4131	1.2889	1.3774	Ave		1.2948			0.0100	11.0		20.0			
7,12-Dimethylbenz(a)anthracene	0.5667 0.6145	0.5563 0.6091	0.5484 0.6058	0.5875	0.6084	Ave		0.5871			0.0100	4.5		20.0			
Benzo[b]fluoranthene	1.5480 1.3889	1.3797 1.3918	1.3574 1.3475	1.4111	1.4117	Ave		1.4045			0.7000	4.4		20.0			
Benzo[k]fluoranthene	1.1735 1.3698	1.1988 1.3011	1.2819 1.3375	1.3177	1.3424	Ave		1.2903			0.7000	5.4		20.0			
Benzo[e]pyrene	1.2774 1.2648	1.2458 1.2468	1.1778 1.2488	1.2441	1.2600	Ave		1.2457			0.0100	2.4		20.0			
Benzo[a]pyrene	1.2976 1.2705	1.0994 1.2509	1.1014 1.2457	1.1809	1.2120	Ave		1.2073			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	1.1949 1.3194	1.1748 1.3382	1.1793 1.3277	1.2233	1.2603	Ave		1.2522			0.5000	5.5		20.0			
Dibenz(a,h)anthracene	1.0370 1.1329	0.9850 1.1500	1.0056 1.1622	1.0485	1.0945	Ave		1.0770			0.4000	6.3		20.0			
Benzo[g,h,i]perylene	0.9558 1.1145	0.9568 1.1240	0.9874 1.1384	1.0253	1.0441	Ave		1.0433			0.5000	7.2		20.0			
2-Fluorophenol (Surr)	1.1589 1.1477	0.9773 1.1457	1.1079 1.1415	1.1906	1.1746	Ave		1.1305				5.9		20.0			
Phenol-d5 (Surr)	1.3745 1.5245	1.4284 1.5084	1.5155 1.4902	1.5695	1.5726	Ave		1.4980				4.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Nitrobenzene-d5 (Surr)	0.3745 0.3649	0.3551 0.3623	0.3732 0.3600	0.3752	0.3609	Ave		0.3658				2.1		20.0			
2-Fluorobiphenyl	1.5673 1.3347	1.3479 1.3446	1.3687 1.3521	1.3570	1.3468	Ave		1.3774				5.6		20.0			
2,4,6-Tribromophenol (Surr)	++++ 0.1060	0.0710 0.1072	0.0750 0.1075	0.0820	0.0969	Ave		0.0922			0.0100	17.0		20.0			
Terphenyl-d14 (Surr)	0.8746 0.8445	0.8253 0.8564	0.8577 0.8473	0.8397	0.8452	Ave		0.8488				1.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-116278/3	V0828003.D
Level 2	IC 180-116278/4	V0828004.D
Level 3	IC 180-116278/5	V0828005.D
Level 4	ICIS 180-116278/6	V0828006.D
Level 5	IC 180-116278/7	V0828007.D
Level 6	IC 180-116278/8	V0828008.D
Level 7	IC 180-116278/9	V0828009.D
Level 8	IC 180-116278/10	V0828010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	5763 373734	21424 548839	42127 710105	108837	203565	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodimethylamine	DCB	Ave	6065 512125	29047 773340	53024 985226	138730	287480	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pyridine	DCB	Ave	12081 1006070	52391 1457080	102734 1846178	270663	533060	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Methyl methanesulfonate	DCB	Ave	9755 674253	36720 1003641	74501 1254594	190719	379891	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzaldehyde	DCB	Ave	11588 858437	44708 1165913	97582 1344857	229449	490874	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol	DCB	Ave	21795 1604756	93324 2354420	173459 2931715	441527	894222	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Aniline	DCB	Ave	21916 1838998	101649 2722932	204493 3383773	511912	1027613	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-chloroethyl)ether	DCB	Ave	13190 1086088	63720 1613829	124116 2018460	302027	593014	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chlorophenol	DCB	Ave	14808 1314471	65021 1906881	137950 2399204	350886	702081	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
n-Decane	DCB	Ave	15661 1133939	61560 1659646	122969 2121559	304773	612731	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	18574 1442785	79809 2170937	159244 2762532	399399	807563	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	18630 1482523	80960 2231328	157978 2792683	401653	815979	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzyl alcohol	DCB	Ave	7713 794532	39811 1199431	80463 1505580	205033	435145	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	20088 1393428	76474 2068944	150661 2620242	389138	780817	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Methylphenol	DCB	Ave	11988 1161412	59117 1684204	122943 2106832	314284	634043	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Indene	DCB	Ave	24432 2071673	107110 3018385	220148 3792720	557043	1122649	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	18480 1422098	80420 2059192	161680 +++++	395704	777359	0.400 40.0	2.00 60.0	4.00 +++++	10.0	20.0
N-Nitrosopyrrolidine	DCB	Ave	4570 525407	24537 786966	50981 991809	140956	287492	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodi-n-propylamine	DCB	Ave	8565 818328	44622 +++++	90887 +++++	225609	463809	0.400 40.0	2.00 +++++	4.00 +++++	10.0	20.0
Methylphenol, 3 & 4	DCB	Ave	13506 1198718	61103 1750097	127159 2161567	333085	679157	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acetophenone	DCB	Ave	20720 1620750	93009 2340818	184290 2924365	454136	934143	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachloroethane	DCB	Ave	7692 635104	32844 927080	67646 1184566	166877	341449	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene	NPT	Ave	15628 1327433	73585 1954700	141912 2462784	360634	741234	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Isophorone	NPT	Ave	25914 2271896	109324 3328343	224393 4174346	585359	1212830	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitrophenol	NPT	Ave	5950 682745	28794 1030998	65629 1326543	173147	362262	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dimethylphenol	NPT	Ave	14672 1284322	72929 1934082	141804 2371719	350918	709174	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzoic acid	NPT	Qua	+++++ 578558	+++++ 904528	22751 1252298	78276	231456	+++++ 40.0	+++++ 60.0	4.00 80.0	10.0	20.0
Bis (2-chloroethoxy)methane	NPT	Ave	17425 1342749	76665 2023895	143068 2526902	367335	736712	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dichlorophenol	NPT	Ave	10284 1102436	54363 1647575	112597 2059785	290414	591030	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4-Trichlorobenzene	NPT	Ave	15411 1209318	67235 1783889	132099 2278449	319449	656233	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Naphthalene	NPT	Ave	50277 3899304	220068 5792650	405113 7389670	1019715	2082205	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloroaniline	NPT	Ave	17913 1620150	80197 2369381	164829 3082112	421519	877412	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dichlorophenol	NPT	Ave	11492 1078355	52722 1592114	109854 2030550	284833	582120	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobutadiene	NPT	Ave	9063 728575	39774 1078172	77387 1356920	193273	386992	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Caprolactam	NPT	Ave	+++++ 327707	11179 474868	25057 631393	76814	161287	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloro-3-methylphenol	NPT	Ave	11335 1104832	50728 1629635	111675 2061001	289412	599623	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Methylnaphthalene	NPT	Ave	33758 2636984	143773 3890720	278236 4999995	688905	1412963	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1-Methylnaphthalene	NPT	Ave	31877 2456136	129702 3609682	265314 4639272	653939	1315150	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorocyclopentadiene	ANT	Ave	8287 903196	38473 1348525	86028 1702433	217522	478157	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	16166 1192591	69622 1734076	125752 2163403	324206	640588	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Trichlorophenol	ANT	Ave	7141 777751	31479 1175689	70441 1525460	193507	409817	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,5-Trichlorophenol	ANT	Ave	7891 818641	34891 1254245	81276 1594164	213844	439613	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,1'-Biphenyl	ANT	Ave	38480 3115515	163741 4641240	327233 5938735	808866	1659305	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chloronaphthalene	ANT	Ave	32290 2643209	146008 3745640	272610 5308582	662481	1403730	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitroaniline	ANT	Ave	5618 703394	32745 1022120	67125 1320280	180046	373410	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dimethyl phthalate	ANT	Ave	28799 2555199	128038 3840250	265765 4912973	677069	1367374	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dinitrobenzene	ANT	Ave	++++ 426705	16255 638540	37549 829008	106941	217482	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dinitrotoluene	ANT	Ave	4893 589272	26786 897231	63443 1177849	154574	318157	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acenaphthylene	ANT	Ave	40887 3786586	188998 5707600	378057 7485111	962109	2010636	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3-Nitroaniline	ANT	Ave	5851 659688	28487 984416	62311 1283714	163191	352181	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dinitrophenol	ANT	Lin1	++++ 719145	10471 1123668	29877 1481466	120603	328106	++++ 80.0	4.00 120	8.00 160	20.0	40.0
Acenaphthene	ANT	Ave	30902 2351957	129085 3440868	246511 4417355	628451	1274903	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Nitrophenol	ANT	Ave	++++ 854087	32129 1233807	72543 1608597	214759	447517	++++ 80.0	4.00 120	8.00 160	20.0	40.0
2,4-Dinitrotoluene	ANT	Ave	++++ 805447	30086 1201529	76043 1516658	203798	428465	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenzofuran	ANT	Ave	46610 3547198	181474 5268641	365453 6754535	910846	1879286	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,5,6-Tetrachlorophenol	ANT	Ave	++++ 724164	27259 1102751	61782 1441186	171893	377373	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	++++ 734662	30110 1080606	67900 1403981	181948	373473	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Naphthylamine	ANT	Ave	25044 2438829	115204 3641357	242446 4662531	634575	1314871	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Diethyl phthalate	ANT	Ave	29216 2570433	131476 3769741	264570 4721866	671989	1371827	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexadecane	NPT	Ave	17809 1528473	78714 2172944	157054 2759336	403872	823529	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chlorophenyl phenyl ether	ANT	Ave	16619 1377620	70156 2038296	136472 2629261	352072	719389	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Nitroaniline	ANT	Ave	++++ 669423	27322 976558	58770 1288098	162215	344344	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluorene	ANT	Ave	33504 2803148	140811 4086040	286453 5228680	715011	1473572	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4,6-Dinitro-2-methylphenol	PHN	Lin2	++++ 966488	22744 1502220	57806 1993091	200505	460987	++++ 80.0	4.00 120	8.00 160	20.0	40.0
N-Nitrosodiphenylamine	PHN	Ave	22447 2066724	98114 3136471	203953 4038897	528681	1086769	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Diphenylhydrazine (as Azobenzene)	PHN	Ave	31031 2839596	145142 4184473	289045 5269233	757222	1536573	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Bromophenyl phenyl ether	PHN	Ave	8956 779963	36753 1172157	75556 1513152	200977	409213	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobenzene	PHN	Ave	9291 838063	39955 1255963	81729 1600683	202694	436272	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Atrazine	PHN	Ave	6156 773986	33445 1132132	70395 1427923	191127	399957	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pentachlorophenol	PHN	Lin1	4472 1037720	27850 1572574	73430 2002591	216978	512353	0.800 80.0	4.00 120	8.00 160	20.0	40.0
n-Octadecane	DCB	Ave	++++ 1576557	75102 ++++	157046 ++++	415310	847432	++++ 40.0	2.00 ++++	4.00 ++++	10.0	20.0
Phenanthrene	PHN	Ave	50237 3962414	199508 5897481	401449 7544297	1028028	2084983	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Anthracene	PHN	Ave	45829 4172950	189192 6199750	393720 8072007	1047050	2172686	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Carbazole	PHN	Ave	36685 3737729	172207 5606611	354062 7378374	922223	1926363	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-butyl phthalate	PHN	Ave	38207 4335645	181485 6455773	372723 8395543	1059382	2222741	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluoranthene	PHN	Ave	44929 4244174	197812 6267942	410592 8175417	1078323	2202771	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzidine	CRY	Ave	++++ 2038822	++++ 2976833	130316 3724716	414692	981660	++++ 40.0	++++ 60.0	4.00 80.0	10.0	20.0
Pyrene	CRY	Ave	44614 4358380	211112 6502974	418106 8505232	1083910	2236598	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278

SDG No.: \_\_\_\_\_

Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Butyl benzyl phthalate	CRY	Ave	+++++ 1754500	63642 2621288	134198 3466175	400367	874940	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3,3'-Dichlorobenzidine	CRY	Ave	+++++ 1366556	44800 2046921	94477 2694797	284602	647056	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	+++++ 2381717	85031 3597471	169769 4757710	536404	1156423	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]anthracene	CRY	Ave	39559 3727880	166875 5579802	341304 7439160	932305	1868438	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Chrysene	CRY	Ave	36227 3636812	164598 5440558	333415 7222324	894674	1809881	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-octyl phthalate	PRY	Ave	29590 3797592	129950 5909570	255513 7917322	806446	1790096	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
7,12-Dimethylbenz(a)anthracene	PRY	Ave	13799 1632509	65019 2540184	126710 3394350	367614	790621	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[b]fluoranthene	PRY	Ave	37694 3689596	161245 5804561	313660 7549713	882916	1834629	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[k]fluoranthene	PRY	Ave	28575 3638831	140103 5426676	296212 7493569	824483	1744542	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[e]pyrene	PRY	Ave	31106 3359974	145591 5199922	272146 6996423	778434	1637545	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]pyrene	PRY	Ave	31596 3375204	128489 5216968	254507 6979211	738921	1575087	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	29096 3504902	137298 5581345	272496 7438618	765394	1637839	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenz(a,h)anthracene	PRY	Ave	25251 3009522	115111 4796195	232359 6511638	656067	1422364	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[g,h,i]perylene	PRY	Ave	23275 2960623	111825 4687776	228154 6378301	641513	1356889	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorophenol (Surr)	DCB	Ave	12344 1111719	52527 1652462	110762 2097202	304483	603241	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol-d5 (Surr)	DCB	Ave	14640 1476770	76774 2175617	151513 2737903	401379	807656	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene-d5 (Surr)	NPT	Ave	16029 1371129	71563 2020343	146750 2567003	372501	754624	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorobiphenyl	ANT	Ave	37781 2882592	152184 4345603	309219 5515089	752957	1565152	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Tribromophenol (Surr)	PHN	Ave	+++++ 367590	12367 556446	26167 719370	73461	177900	+++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Terphenyl-d14 (Surr)	CRY	Ave	29169 2944594	135233 4361149	272994 5681782	723485	1514183	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 116278  
SDG No.: \_\_\_\_\_  
Instrument ID: CH731 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 08/28/2014 02:22 Calibration End Date: 08/28/2014 05:47 Calibration ID: 17523

Curve Type Legend:

Ave = Average ISTD  
Lin1 = Linear 1/conc ISTD  
Lin2 = Linear 1/conc^2 ISTD  
Qua = Quadratic ISTD

TestAmerica Laboratories  
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m

Instrument: CH731

Lims Location: 180

Lock State: Unlocked

Cpnd Order: Compound Type

Integrator: RTE

Last Modified: 28-Aug-2014 13:12:42

No.Compounds:209

## Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CH731\20140828-2983.b

Inj Date : 28-Aug-2014 02:22:30, Sublist: chrom-BNA\_CH731\*sub4

Limit Group: BNA 8270D ICAL

## Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
* 1 1,4-Dichlorobenzene-d4	213030	214989	199956	204587	205432	193732	192307	183728
* 2 Naphthalene-d8	855974	806216	786429	794181	836484	751530	743466	713034
* 3 Acenaphthene-d10	482121	451632	451838	443884	464844	431954	430910	407878
* 4 Phenanthrene-d10	758976	696890	697755	716583	734670	693656	692102	669057
* 5 Chrysene-d12	667026	655465	636601	689244	716589	697317	678955	670579
* 6 Perylene-d12	487007	467477	462145	500563	519840	531303	556091	560266
\$ 7 2-Fluorophenol	2.5	-13.6	-2.0	5.3	3.9	1.5	1.3	1.0
\$ 8 Phenol-d5	-8.2	-4.6	1.2	4.8	5.0	1.8	0.7	-0.5
\$ 9 Nitrobenzene-d5	2.4	-2.9	2.0	2.6	-1.3	-0.2	-0.9	-1.6
\$ 10 2-Fluorobiphenyl	13.8	-2.1	-0.6	-1.5	-2.2	-3.1	-2.4	-1.8
\$ 11 2,4,6-Tribromophenol	Disabled	-23.0	-18.7	-11.1	5.0	14.9	16.2	16.6
\$ 12 Terphenyl-d14	3.0	-2.8	1.0	-1.1	-0.4	-0.5	0.9	-0.2
13 1,4-Dioxane	29.8	-4.4	1.1	2.1	-4.9	-7.5	-8.7	-7.3
14 N-Nitrosodimethylamine	4.9	-0.5	-2.3	-0.1	3.1	-2.6	-1.2	-1.2
15 Pyridine	9.5	-5.9	-0.8	2.2	0.2	0.3	-2.5	-3.0
22 Methyl methanesulfonat	24.1	-7.4	1.0	1.0	0.2	-5.7	-5.7	-7.5
26 Benzaldehyde	21.3	-7.3	8.8	0.0	6.6	-1.2	-9.9	-18.4
27 Phenol	18.0	0.2	0.1	-0.4	0.4	-4.4	-5.8	-8.0
28 Aniline	5.3	-3.2	4.7	2.5	2.4	-2.8	-3.3	-5.7
29 Bis(2-chloroethyl)ethe	6.1	1.5	6.3	1.2	-1.1	-4.0	-4.2	-5.9
31 2-Chlorophenol	3.9	-9.6	3.1	2.5	2.2	1.4	-1.2	-2.4
32 n-Decane	21.2	-5.6	1.4	-1.8	-1.7	-3.5	-5.2	-4.8
33 1,3-Dichlorobenzene	12.0	-4.6	2.3	0.3	1.0	-4.3	-3.3	-3.4
34 1,4-Dichlorobenzene	11.1	-4.3	0.4	-0.2	0.9	-2.8	-1.7	-3.4
36 Benzyl alcohol	-9.3	-7.3	0.8	0.4	6.1	2.7	4.1	2.6
37 1,2-Dichlorobenzene	24.1	-6.4	-0.8	0.1	0.0	-5.3	-5.6	-6.1
38 2-Methylphenol	-4.5	-6.7	4.3	4.2	4.7	1.7	-1.0	-2.7
39 Indene	7.0	-7.0	2.7	1.6	2.0	-0.2	-2.4	-3.7
40 2,2'-oxybis[1-chloropr	12.4	-3.1	4.8	0.2	-1.9	-4.9	-7.5	Disabled
41 N-Nitrosopyrrolidine	-17.0	-11.7	-1.3	6.7	8.3	5.0	5.6	4.5
45 4-Methylphenol	Disabled	-8.1	2.8	5.3	6.9	0.0	-1.9	-4.9
43 Acetophenone	Disabled	0.5	7.0	3.1	5.6	-2.9	-5.8	-7.6
44 N-Nitrosodi-n-propylam	-6.7	-3.7	5.4	2.3	4.7	-2.0	Disabled	Disabled
47 Hexachloroethane	9.6	-7.2	2.7	-0.9	0.9	-0.5	-2.4	-2.1
48 Nitrobenzene	2.2	2.2	1.0	1.7	-0.8	-1.1	-1.9	-3.3
50 Isophorone	3.6	-7.2	-2.3	0.9	-0.8	3.5	2.1	0.2
51 2-Nitrophenol	-17.6	-15.3	-1.0	3.4	2.7	7.7	9.6	10.3
52 2,4-Dimethylphenol	-1.3	4.2	3.8	1.8	-2.4	-1.6	-0.2	-4.3
56 Benzoic acid	Disabled	Disabled	* 35.0	-8.3	-8.1	3.3	-0.4	-0.1
55 Bis(2-chloroethoxy)met	10.5	3.2	-1.3	0.4	-4.4	-3.0	-1.5	-3.8
57 2,4-Dichlorophenol	-14.5	-4.1	1.8	4.0	0.5	4.3	5.1	2.7
59 1,2,4-Trichlorobenzene	9.7	1.6	2.3	-2.0	-4.4	-2.0	-2.6	-2.7
60 Naphthalene	11.4	3.6	-2.3	-2.6	-5.5	-1.6	-1.4	-1.7



Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
62 4-Chloroaniline	-0.6	-5.5	-0.4	0.9	-0.3	2.4	0.9	2.7
63 2,6-Dichlorophenol	-3.8	-6.2	0.1	2.8	-0.2	2.9	2.3	2.1
64 Hexachlorobutadiene	8.4	1.0	0.7	-0.4	-5.3	-0.8	-1.0	-2.6
67 Caprolactam	Disabled	-27.4	-16.6	1.3	1.0	14.2	11.5	15.9
70 4-Chloro-3-methylpheno	-6.0	-10.7	0.8	3.5	1.8	4.3	3.7	2.6
72 2-Methylnaphthalene	11.1	0.5	-0.3	-2.3	-4.8	-1.2	-1.7	-1.2
75 1-Methylnaphthalene	12.4	-2.9	1.8	-0.6	-5.1	-1.4	-2.3	-1.8
76 Hexachlorocyclopentadi	-11.9	-12.7	-2.4	0.5	5.4	7.2	6.9	7.0
77 1,2,4,5-Tetrachloroben	16.7	7.3	-3.2	1.7	-4.1	-3.9	-6.7	-7.7
78 2,4,6-Trichlorophenol	-11.8	-17.0	-7.1	3.9	5.0	7.2	8.3	11.4
79 2,4,5-Trichlorophenol	-10.2	-15.3	-1.4	5.7	3.7	3.9	6.4	7.2
80 1,1'-Biphenyl	9.0	-1.0	-1.1	-0.5	-2.5	-1.5	-1.9	-0.6
81 2-Chloronaphthalene	8.0	4.2	-2.7	-3.8	-2.6	-1.4	-6.6	4.9
82 2-Nitroaniline	Disabled	-7.7	-5.4	3.3	2.3	3.7	0.7	3.1
86 Dimethyl phthalate	0.8	-4.3	-0.7	3.0	-0.7	-0.1	0.3	1.7
87 1,3-Dinitrobenzene	Disabled	-21.8	-9.7	4.7	1.7	7.3	7.3	10.4
88 2,6-Dinitrotoluene	-23.1	-10.2	6.3	5.5	3.7	3.3	5.1	9.4
89 Acenaphthylene	-2.1	-3.4	-3.4	0.1	-0.1	1.2	1.9	5.9
90 3-Nitroaniline	-15.3	-12.0	-3.8	2.6	5.7	6.6	6.3	9.8
91 Acenaphthene	14.2	1.8	-2.8	0.9	-2.3	-3.0	-5.2	-3.5
92 2,4-Dinitrophenol	Disabled	* 33.3	-9.3	-17.7	-10.2	-1.4	0.9	4.4
93 4-Nitrophenol	Disabled	-21.9	-11.8	6.3	5.7	8.6	4.8	8.3
94 2,4-Dinitrotoluene	Disabled	-24.0	-4.0	4.7	5.1	6.3	6.0	6.0
95 Dibenzofuran	15.9	-3.7	-3.0	-1.6	-3.1	-1.5	-2.3	-0.7
97 2,3,5,6-Tetrachlorophe	Disabled	-22.5	-12.2	-0.5	4.3	7.7	9.6	13.5
99 2,3,4,6-Tetrachlorophe	Disabled	-16.5	-5.9	2.7	0.6	6.5	4.7	7.8
100 2-Naphthylamine	-5.6	-7.3	-2.5	3.9	2.8	2.6	2.4	3.8
101 Diethyl phthalate	2.6	-1.5	-0.9	2.5	-0.1	0.7	-1.3	-2.0
102 Hexadecane	4.3	-2.1	0.2	2.0	-1.2	2.0	-2.3	-3.0
104 4-Chlorophenyl phenyl	8.5	-2.2	-4.9	-0.1	-2.5	0.4	-0.7	1.5
105 4-Nitroaniline	Disabled	-16.1	-9.8	1.4	2.7	7.5	4.8	9.5
106 Fluorene	7.9	-3.2	-1.6	0.0	-1.6	0.8	-1.9	-0.5
108 4,6-Dinitro-2-methylph	Disabled	6.8	-10.7	-8.0	-4.3	2.6	5.5	8.0
109 N-Nitrosodiphenylamine	0.1	-4.7	-1.0	-0.1	0.2	0.9	2.3	2.2
111 1,2-Diphenylhydrazine	-0.5	1.4	0.8	2.9	1.8	-0.4	-1.9	-4.2
116 4-Bromophenyl phenyl e	5.6	-5.6	-3.1	0.4	-0.3	0.6	1.1	1.2
118 Hexachlorobenzene	3.4	-3.2	-1.1	-4.5	0.3	2.0	2.1	1.0
119 Atrazine	-21.0	-6.5	-1.7	4.0	6.1	8.7	6.3	4.0
122 Pentachlorophenol	* 53.8	-23.4	-17.8	-14.0	-4.0	1.7	2.6	1.2
RB								
121 n-Octadecane	Disabled	-11.2	-0.2	3.2	4.8	3.4	Disabled	Disabled
126 Phenanthrene	13.8	-1.6	-1.1	-1.4	-2.4	-1.8	-2.4	-3.1
128 Anthracene	3.0	-7.4	-3.7	-0.3	0.9	2.6	1.9	2.9
130 Carbazole	-6.9	-4.8	-2.3	-0.9	1.0	3.8	4.0	6.2
132 Di-n-butyl phthalate	-13.0	-10.0	-7.7	2.2	4.6	8.0	7.5	8.4
137 Fluoranthene	-0.8	-4.9	-1.4	0.8	0.4	2.5	1.1	2.3
138 Benzidine	Disabled	Disabled	-22.3	-8.7	3.9	10.9	10.9	5.3
139 Pyrene	4.5	0.6	2.6	-1.7	-2.5	-2.4	-0.2	-0.9
144 Butyl benzyl phthalate	Disabled	-17.6	-10.5	-1.4	3.7	6.8	9.3	9.7
149 3,3'-Dichlorobenzidine	Disabled	-22.1	-15.5	-5.9	2.9	11.6	14.5	14.5
151 Bis(2-ethylhexyl) phth	Disabled	-17.8	-15.5	-1.4	2.2	8.2	11.9	12.4
152 Benzo[a]anthracene	9.4	-6.1	-1.1	-0.2	-3.8	-1.4	1.0	2.3
153 Chrysene	3.8	-4.1	0.1	-0.8	-3.5	-0.4	2.1	2.9
156 Di-n-octyl phthalate	Disabled	-14.9	-15.3	-1.3	5.5	9.4	8.5	8.2
157 7,12-Dimethylbenz(a)an	-3.5	-5.2	-6.6	0.1	3.6	4.7	3.7	3.2
158 Benzo[b]fluoranthene	10.2	-1.8	-3.4	0.5	0.5	-1.1	-0.9	-4.1
159 Benzo[k]fluoranthene	-9.1	-7.1	-0.7	2.1	4.0	6.2	0.8	3.7
176 Benzo[e]pyrene	2.5	0.0	-5.5	-0.1	1.2	1.5	0.1	0.2
160 Benzo[a]pyrene	7.5	-8.9	-8.8	-2.2	0.4	5.2	3.6	3.2
163 Indeno[1,2,3-cd]pyrene	-4.6	-6.2	-5.8	-2.3	0.6	5.4	6.9	6.0

Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
164 Dibenz(a,h)anthracene	-3.7	-8.5	-6.6	-2.6	1.6	5.2	6.8	7.9
165 Benzo[g,h,i]perylene	-8.4	-8.3	-5.4	-1.7	0.1	6.8	7.7	9.1

[ICalib Error Legend](#)

RB, Low Point Test Fails

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 28-Aug-2014 02:22:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-003  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:49 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 07:00:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.244	6.233	0.011	95	213030	8.00	8.00	
* 2 Naphthalene-d8	136	7.446	7.435	0.011	100	855974	8.00	8.00	
* 3 Acenaphthene-d10	164	9.059	9.053	0.006	91	482121	8.00	8.00	
* 4 Phenanthrene-d10	188	10.421	10.415	0.006	97	758976	8.00	8.00	
* 5 Chrysene-d12	240	13.882	13.871	0.011	97	667026	8.00	8.00	
* 6 Perylene-d12	264	16.777	16.766	0.011	97	487007	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.893	4.896	-0.003	92	12344	0.4000	0.4100	
\$ 8 Phenol-d5	99	5.886	5.885	0.001	94	14640	0.4000	0.3670	
\$ 9 Nitrobenzene-d5	82	6.762	6.766	-0.004	88	16029	0.4000	0.4096	
\$ 10 2-Fluorobiphenyl	172	8.429	8.427	0.001	98	37781	0.4000	0.4551	
\$ 11 2,4,6-Tribromophenol	330	9.780	9.778	0.002	75	2105	0.4000	0.2406	
\$ 12 Terphenyl-d14	244	12.157	12.155	0.002	97	29169	0.4000	0.4121	
13 1,4-Dioxane	88	1.763	1.751	0.012	41	5763	0.4000	0.5190	M
14 N-Nitrosodimethylamine	74	2.425	2.408	0.017	63	6065	0.4000	0.4195	M
15 Pyridine	79	2.532	2.477	0.055	59	12081	0.4000	0.4380	M
22 Methyl methanesulfonate	80	4.674	4.667	0.007	89	9755	0.4000	0.4963	
26 Benzaldehyde	77	5.806	5.804	0.002	89	11588	0.4000	0.4852	
27 Phenol	94	5.897	5.901	-0.004	94	21795	0.4000	0.4721	
28 Aniline	93	5.918	5.917	0.001	95	21916	0.4000	0.4214	
29 Bis(2-chloroethyl)ether	93	5.982	5.981	0.001	95	13190	0.4000	0.4243	
31 2-Chlorophenol	128	6.036	6.034	0.002	95	14808	0.4000	0.4156	
32 n-Decane	43	6.094	6.098	-0.004	87	15661	0.4000	0.4847	
33 1,3-Dichlorobenzene	146	6.185	6.189	-0.004	96	18574	0.4000	0.4481	
34 1,4-Dichlorobenzene	146	6.260	6.258	0.002	89	18630	0.4000	0.4445	
36 Benzyl alcohol	108	6.372	6.371	0.001	89	7713	0.4000	0.3626	
37 1,2-Dichlorobenzene	146	6.410	6.408	0.002	96	20088	0.4000	0.4964	
38 2-Methylphenol	108	6.479	6.477	0.002	94	11988	0.4000	0.3818	
39 Indene	116	6.495	6.488	0.007	87	24432	0.4000	0.4280	
40 2,2'-oxybis[1-chloropropan	45	6.506	6.504	0.002	88	18480	0.4000	0.4496	
41 N-Nitrosopyrrolidine	100	6.591	6.595	-0.004	81	4570	0.4000	0.3321	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.618	6.622	-0.004	60	13506	0.4000	0.4087	
43 Acetophenone	105	6.623	6.622	0.001	81	20720	0.4000	0.4446	
44 N-Nitrosodi-n-propylamine	70	6.618	6.622	-0.004	64	8565	0.4000	0.3730	
47 Hexachloroethane	117	6.735	6.734	0.001	87	7692	0.4000	0.4385	
48 Nitrobenzene	77	6.783	6.782	0.001	88	15628	0.4000	0.4088	
50 Isophorone	82	7.008	7.006	0.002	97	25914	0.4000	0.4144	
51 2-Nitrophenol	139	7.083	7.086	-0.003	93	5950	0.4000	0.3298	
52 2,4-Dimethylphenol	107	7.115	7.113	0.002	95	14672	0.4000	0.3947	
56 Benzoic acid	122	7.163	7.166	-0.003	0	369	0.4000	3.83	M
55 Bis(2-chloroethoxy)methane	93	7.200	7.198	0.002	97	17425	0.4000	0.4419	
57 2,4-Dichlorophenol	162	7.307	7.305	0.002	94	10284	0.4000	0.3419	
59 1,2,4-Trichlorobenzene	180	7.392	7.391	0.001	90	15411	0.4000	0.4387	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.467	7.466	0.001	94	50277	0.4000	0.4458	
62 4-Chloroaniline	127	7.505	7.503	0.001	95	17913	0.4000	0.3976	
63 2,6-Dichlorophenol	162	7.515	7.519	-0.004	94	11492	0.4000	0.3850	
64 Hexachlorobutadiene	225	7.585	7.583	0.002	95	9063	0.4000	0.4335	
67 Caprolactam	113	7.798	7.797	0.001	81	1781	0.4000	0.2179	
70 4-Chloro-3-methylphenol	107	7.932	7.930	0.002	93	11335	0.4000	0.3760	
72 2-Methylnaphthalene	142	8.097	8.101	-0.004	94	33758	0.4000	0.4444	
75 1-Methylnaphthalene	142	8.194	8.192	0.002	95	31877	0.4000	0.4495	
76 Hexachlorocyclopentadiene	237	8.252	8.251	0.001	94	8287	0.4000	0.3524	
77 1,2,4,5-Tetrachlorobenzene	216	8.258	8.256	0.002	96	16166	0.4000	0.4667	
78 2,4,6-Trichlorophenol	196	8.354	8.352	0.002	87	7141	0.4000	0.3529	
79 2,4,5-Trichlorophenol	196	8.386	8.384	0.002	91	7891	0.4000	0.3590	
80 1,1'-Biphenyl	154	8.519	8.523	-0.004	95	38480	0.4000	0.4360	
81 2-Chloronaphthalene	162	8.551	8.550	0.001	96	32290	0.4000	0.4319	
82 2-Nitroaniline	65	8.626	8.625	0.001	81	5618	0.4000	0.3067	
86 Dimethyl phthalate	163	8.776	8.774	0.002	97	28799	0.4000	0.4034	
87 1,3-Dinitrobenzene	168	8.808	8.806	0.002	81	2559	0.4000	0.2307	
88 2,6-Dinitrotoluene	165	8.834	8.833	0.001	85	4893	0.4000	0.3075	
89 Acenaphthylene	152	8.936	8.934	0.002	98	40887	0.4000	0.3915	
90 3-Nitroaniline	138	8.995	8.993	0.002	95	5851	0.4000	0.3388	
91 Acenaphthene	153	9.091	9.089	0.002	92	30902	0.4000	0.4567	
92 2,4-Dinitrophenol	184	9.128	9.089	0.039	1	1393	0.8000	4.42	M
93 4-Nitrophenol	109	9.123	9.121	0.002	87	5005	0.8000	0.4561	
94 2,4-Dinitrotoluene	165	9.203	9.207	-0.004	58	5503	0.4000	0.2603	
95 Dibenzofuran	168	9.246	9.244	0.002	95	46610	0.4000	0.4636	
97 2,3,5,6-Tetrachlorophenol	232	9.315	9.314	0.001	87	4407	0.4000	0.2349	
99 2,3,4,6-Tetrachlorophenol	232	9.353	9.351	0.002	69	5943	0.4000	0.3088	
100 2-Naphthylamine	143	9.379	9.378	0.001	97	25044	0.4000	0.3775	
101 Diethyl phthalate	149	9.411	9.410	0.001	97	29216	0.4000	0.4103	
102 Hexadecane	57	9.411	9.415	-0.004	95	17809	0.4000	0.4174	
104 4-Chlorophenyl phenyl ethe	204	9.539	9.538	0.001	96	16619	0.4000	0.4341	
105 4-Nitroaniline	138	9.550	9.549	0.001	84	4386	0.4000	0.2524	
106 Fluorene	166	9.561	9.559	0.002	96	33504	0.4000	0.4316	
108 4,6-Dinitro-2-methylphenol	198	9.588	9.581	0.007	1	3092	0.8000	2.64	
109 N-Nitrosodiphenylamine	169	9.641	9.639	0.002	61	22447	0.4000	0.4006	
111 1,2-Diphenylhydrazine	77	9.684	9.682	0.002	41	31031	0.4000	0.3981	
116 4-Bromophenyl phenyl ether	248	9.988	9.987	0.001	69	8956	0.4000	0.4225	
118 Hexachlorobenzene	284	10.074	10.072	0.002	88	9291	0.4000	0.4134	
119 Atrazine	200	10.106	10.104	0.002	88	6156	0.4000	0.3162	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.244	10.238	0.006	61	4472	0.8000	1.23	
121 n-Octadecane	57	10.244	10.243	0.001	94	16306	0.4000	0.3891	
126 Phenanthrene	178	10.442	10.441	0.002	98	50237	0.4000	0.4551	
128 Anthracene	178	10.490	10.489	0.001	96	45829	0.4000	0.4121	
130 Carbazole	167	10.629	10.627	0.002	94	36685	0.4000	0.3723	
132 Di-n-butyl phthalate	149	10.917	10.916	0.001	100	38207	0.4000	0.3480	
137 Fluoranthene	202	11.708	11.712	-0.004	97	44929	0.4000	0.3966	
138 Benzidine	184	11.831	11.835	-0.004	97	11304	0.4000	0.2571	
139 Pyrene	202	12.007	12.005	0.002	96	44614	0.4000	0.4180	
144 Butyl benzyl phthalate	149	12.840	12.839	0.001	95	15861	0.4000	0.4038	
149 3,3'-Dichlorobenzidine	252	13.786	13.779	0.007	71	9628	0.4000	0.3289	
151 Bis(2-ethylhexyl) phthalat	149	13.828	13.821	0.007	95	18541	0.4000	0.3522	
152 Benzo[a]anthracene	228	13.860	13.859	0.001	95	39559	0.4000	0.4375	
153 Chrysene	228	13.924	13.928	-0.004	97	36227	0.4000	0.4150	
156 Di-n-octyl phthalate	149	15.110	15.109	0.001	0	29590	0.4000	0.3754	M
157 7,12-Dimethylbenz(a)anthra	256	15.965	15.963	0.002	90	13799	0.4000	0.3861	
158 Benzo[b]fluoranthene	252	15.981	15.979	0.002	98	37694	0.4000	0.4409	
159 Benzo[k]fluoranthene	252	16.029	16.033	-0.004	61	28575	0.4000	0.3638	M
176 Benzo[e]pyrene	252	16.547	16.551	-0.004	0	31106	0.4000	0.4102	
160 Benzo[a]pyrene	252	16.659	16.658	0.001	70	31596	0.4000	0.4299	
163 Indeno[1,2,3-cd]pyrene	276	18.966	18.960	0.006	0	29096	0.4000	0.3817	M
164 Dibenz(a,h)anthracene	278	18.998	18.992	0.006	0	25251	0.4000	0.3852	M
165 Benzo[g,h,i]perylene	276	19.554	19.542	0.012	94	23275	0.4000	0.3665	
S 208 Methyl Phenols, Total	108				0		0.8000	0.7905	
S 206 Total Cresols	108				0		0.8000	0.7905	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD0.4i\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 3

Client ID:

Injection Vol: 2.0 ul

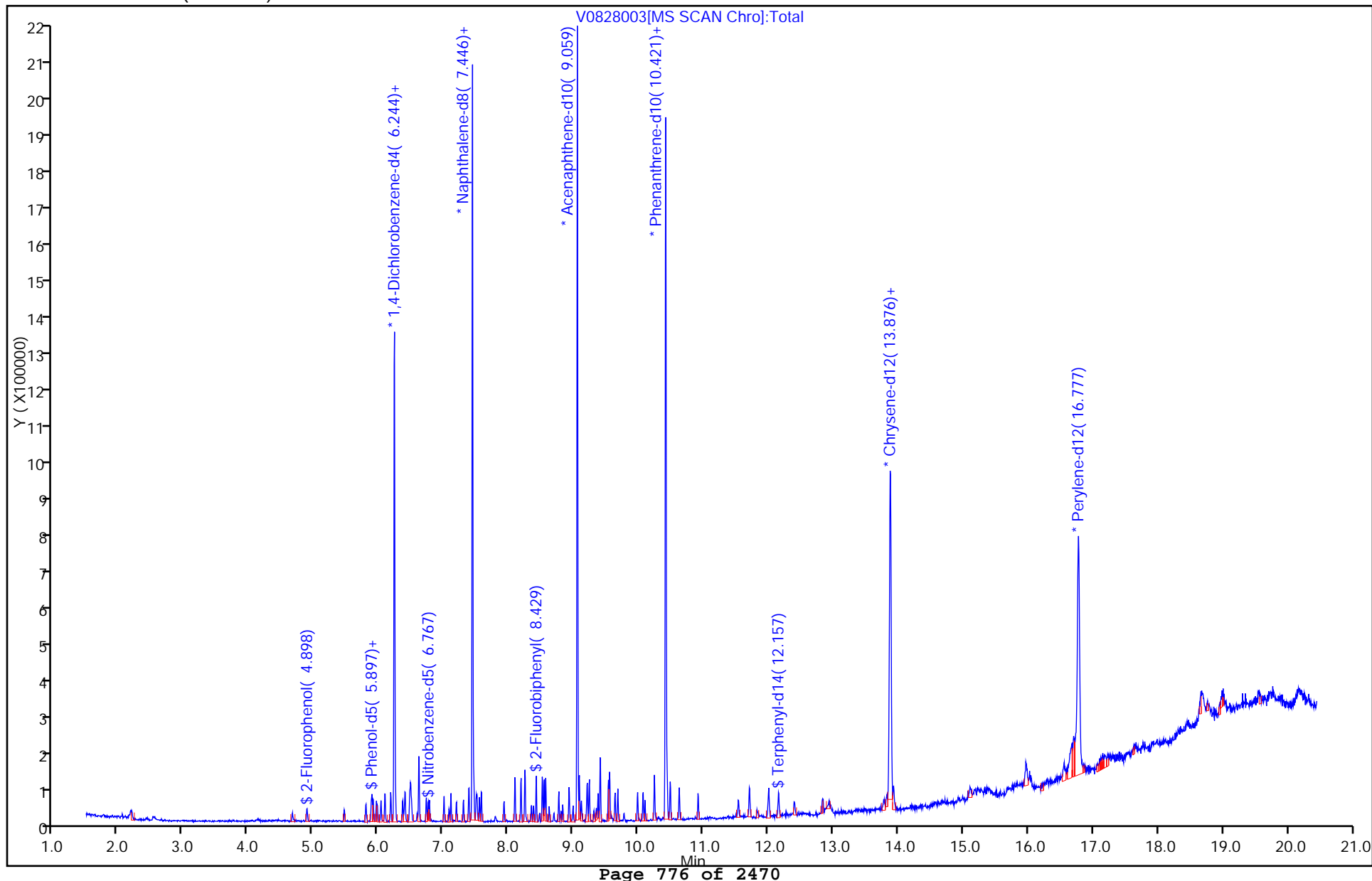
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

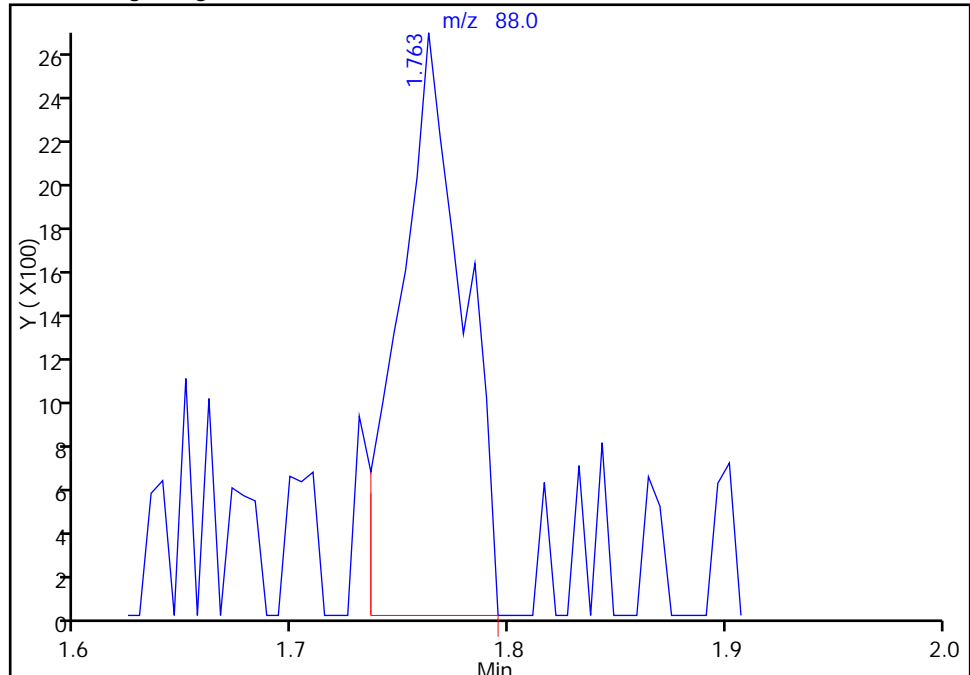
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 13 1,4-Dioxane, CAS: 123-91-1

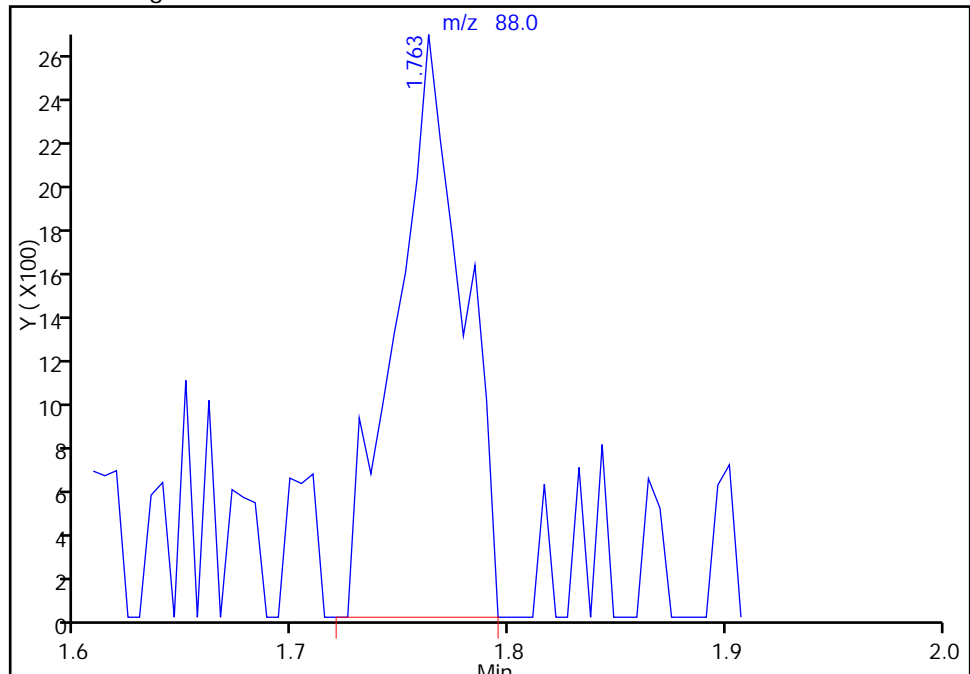
RT: 1.76  
Response: 5469  
Amount: 0.492057

## Processing Integration Results



RT: 1.76  
Response: 5763  
Amount: 0.519021

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

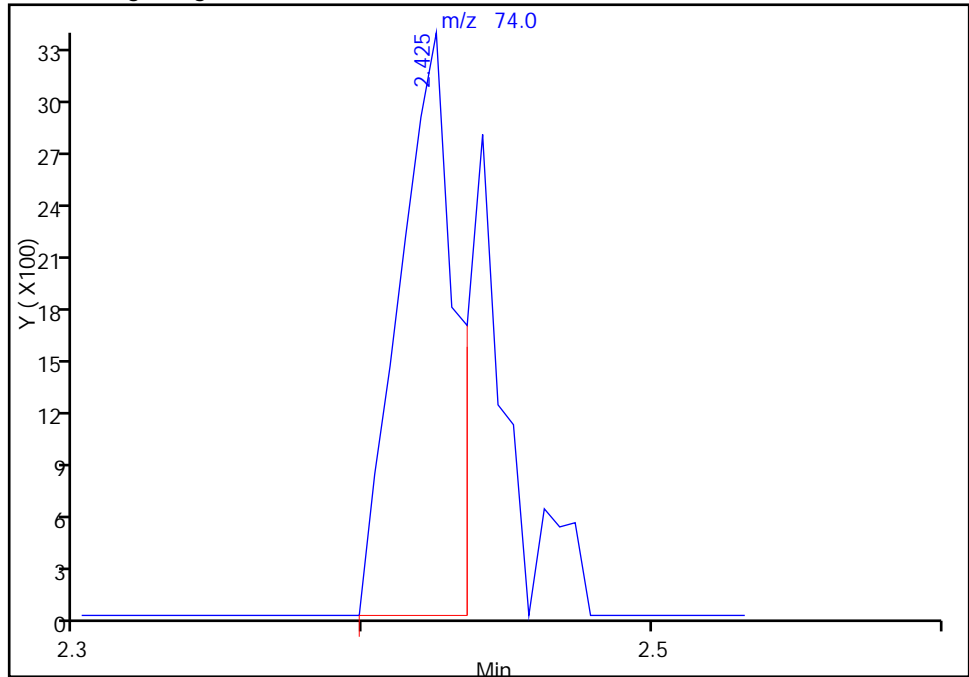
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 14 N-Nitrosodimethylamine, CAS: 62-75-9

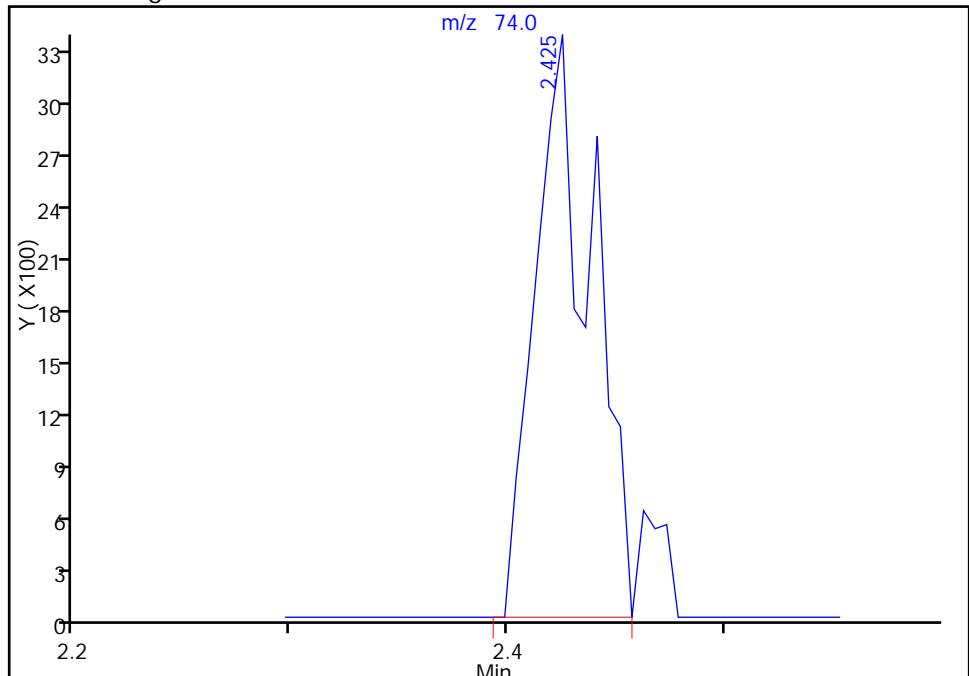
RT: 2.43  
Response: 4459  
Amount: 0.322424

## Processing Integration Results



RT: 2.43  
Response: 6065  
Amount: 0.419493

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

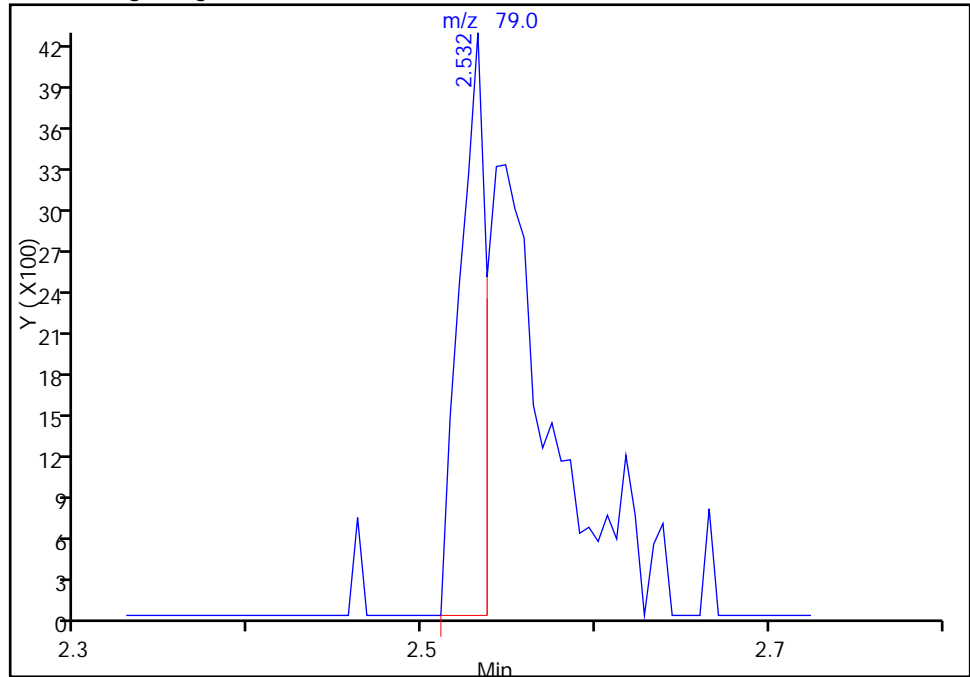
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 15 Pyridine, CAS: 110-86-1

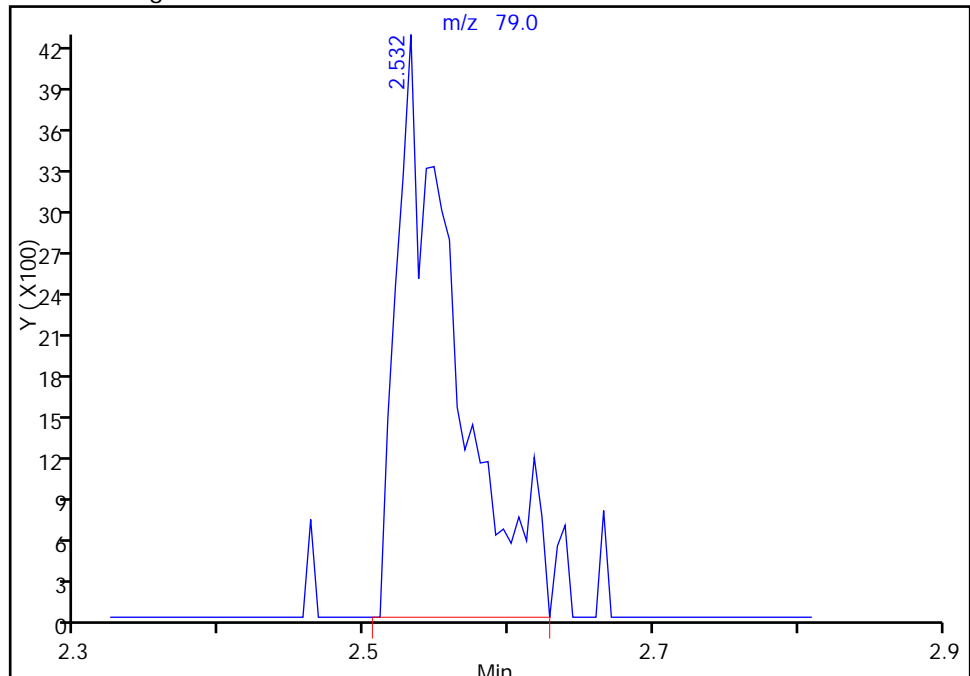
RT: 2.53  
Response: 4453  
Amount: 0.397592

## Processing Integration Results



RT: 2.53  
Response: 12081  
Amount: 0.437994

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

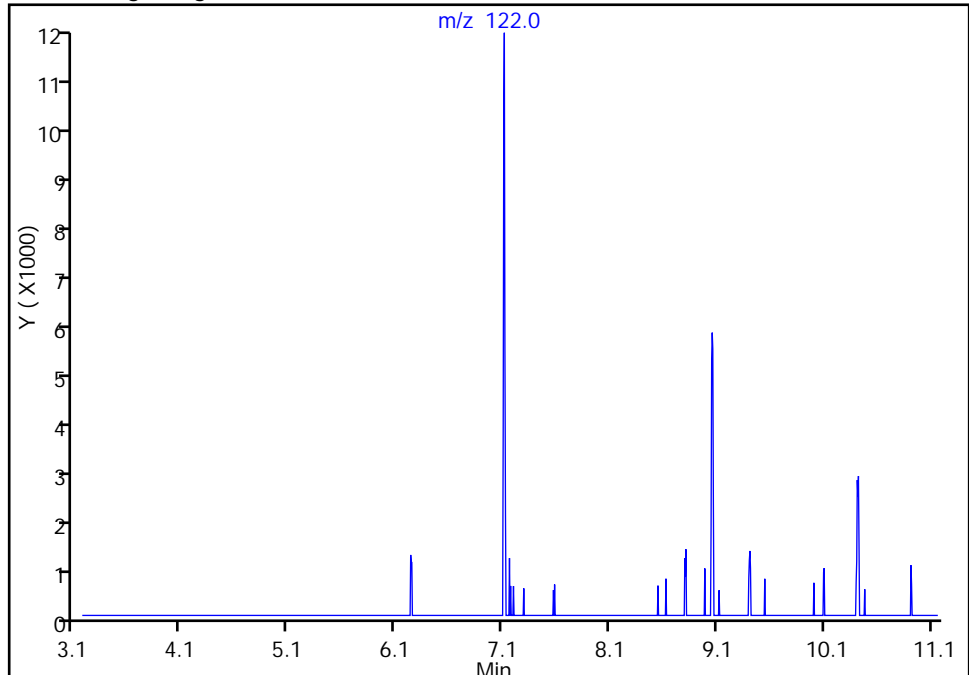
Detector: MS SCAN

## 56 Benzoic acid, CAS: 65-85-0

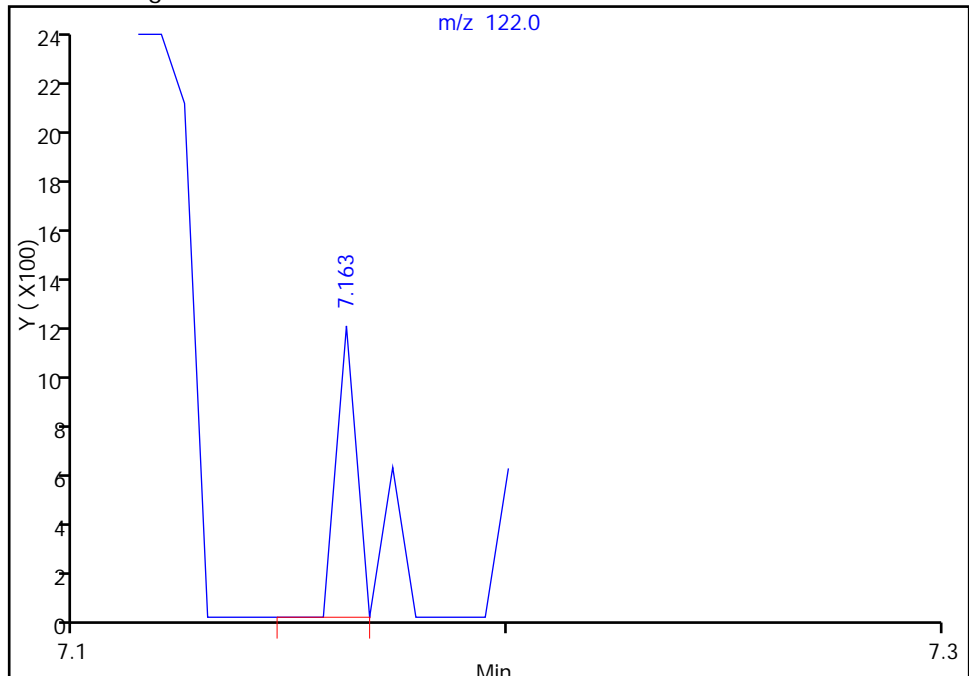
Not Detected

Expected RT: 7.17

## Processing Integration Results

RT: 7.16  
Response: 369  
Amount: 3.829111

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

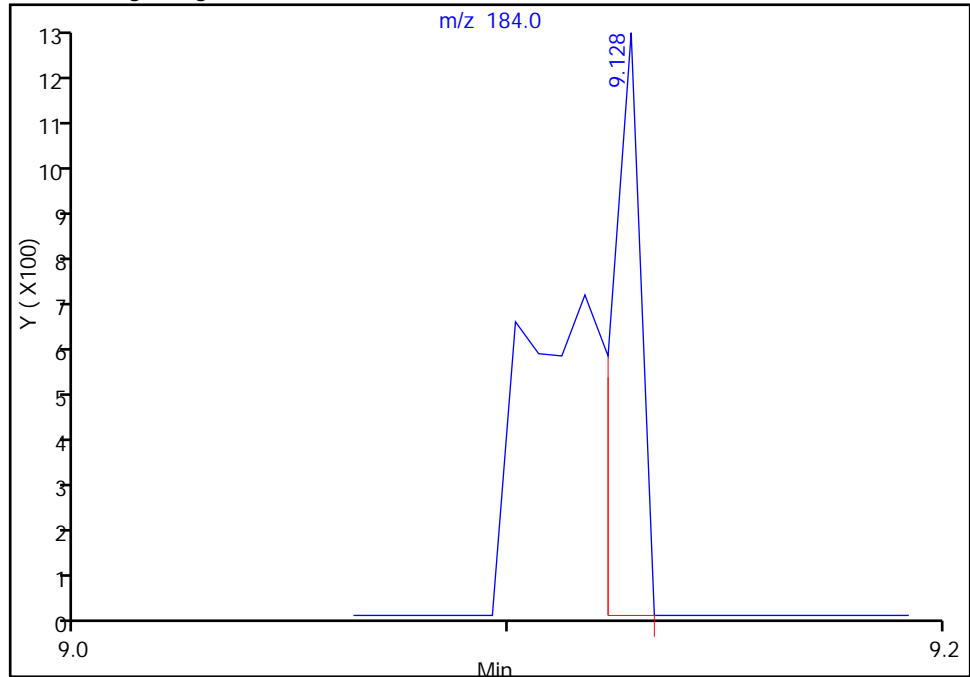
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

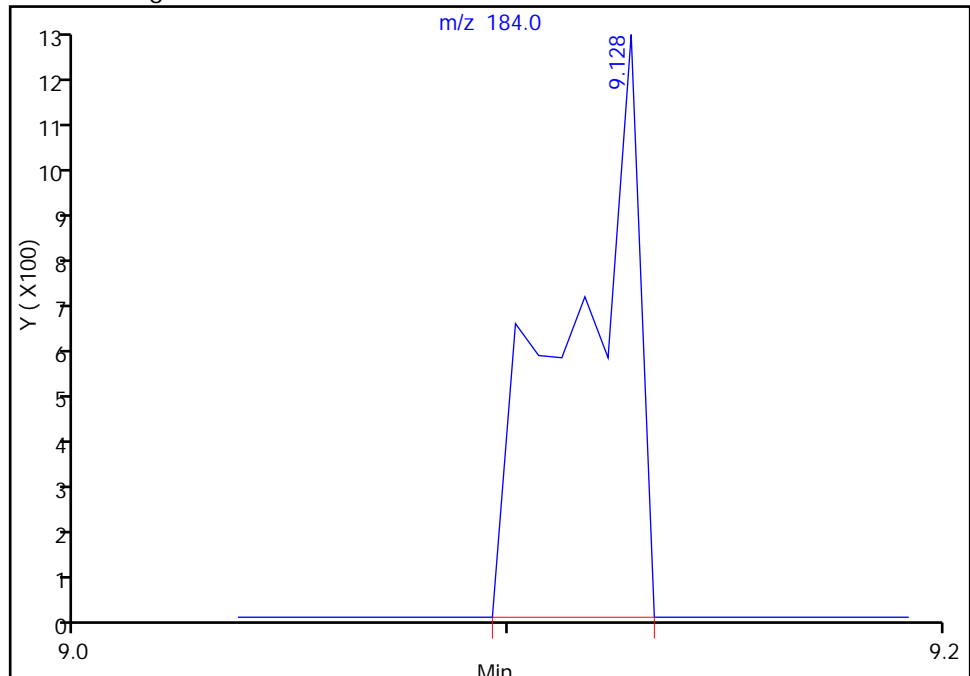
## 92 2,4-Dinitrophenol, CAS: 51-28-5

RT: 9.13  
Response: 593  
Amount: 0.096338

## Processing Integration Results

RT: 9.13  
Response: 1393  
Amount: 4.421454

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

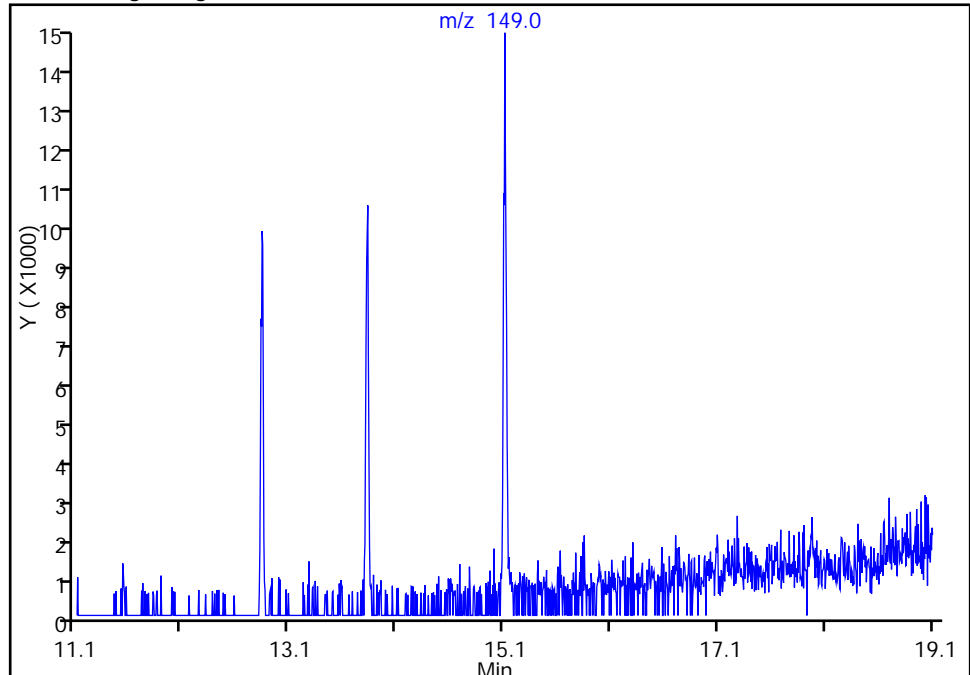
Detector: MS SCAN

## 156 Di-n-octyl phthalate, CAS: 117-84-0

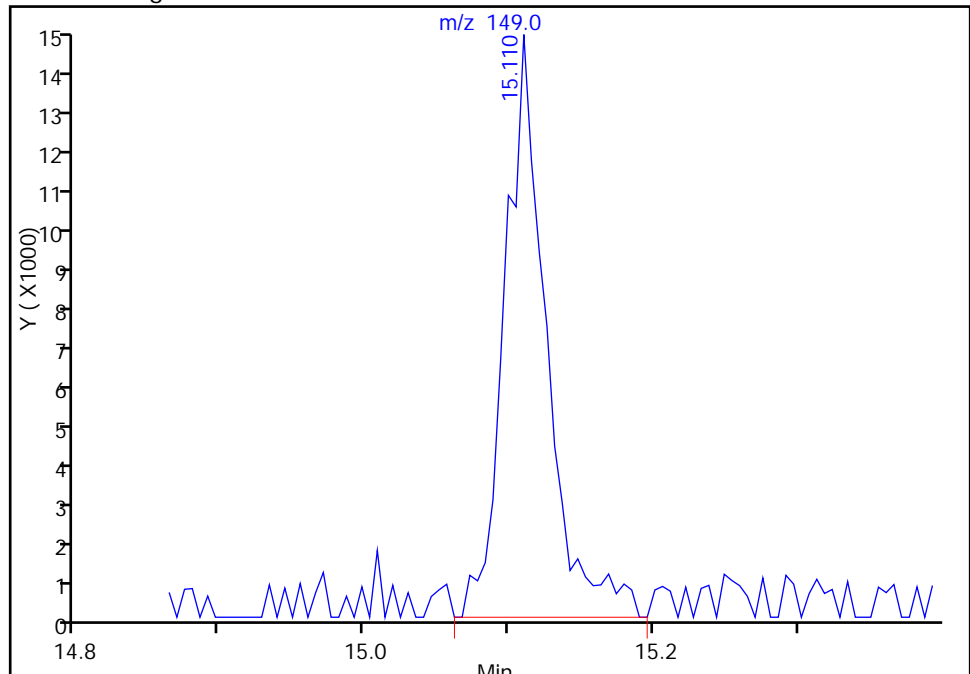
Not Detected

Expected RT: 15.11

## Processing Integration Results



## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

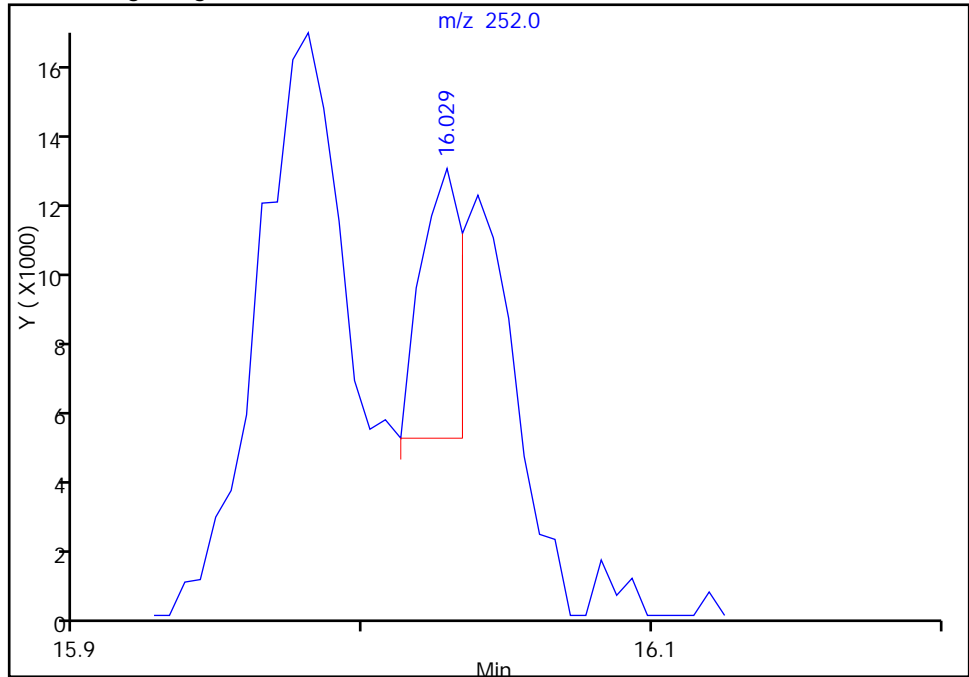
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

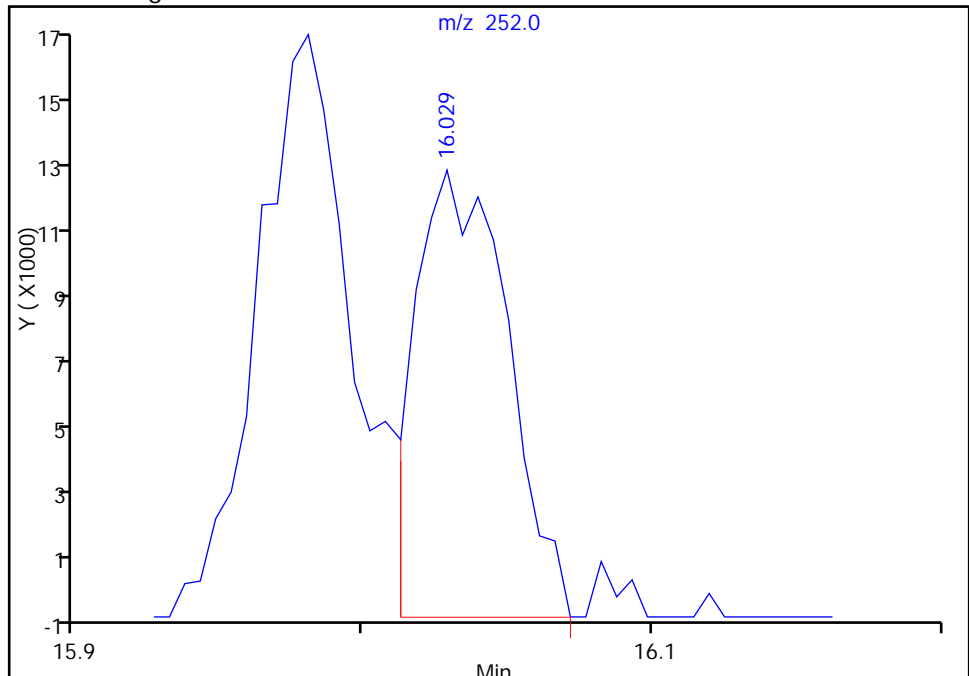
## 159 Benzo[k]fluoranthene, CAS: 207-08-9

RT: 16.03  
Response: 7689  
Amount: 0.108785

## Processing Integration Results

RT: 16.03  
Response: 28575  
Amount: 0.363780

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

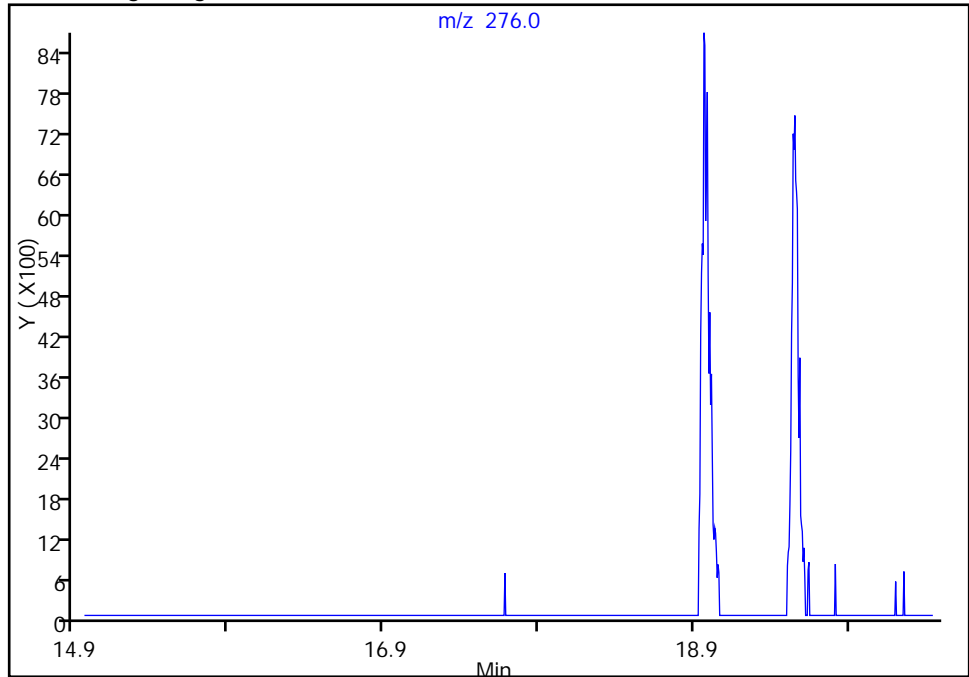
Detector: MS SCAN

**163 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5**

## Processing Integration Results

Not Detected

Expected RT: 18.96

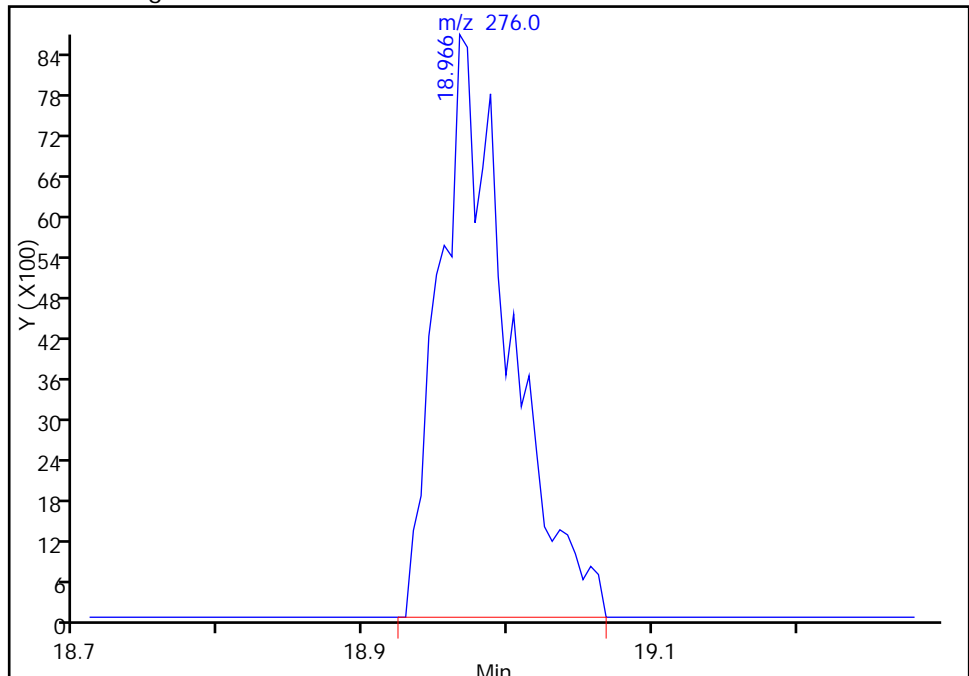


## Manual Integration Results

RT: 18.97

Response: 29096

Amount: 0.381687



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828003.D

Injection Date: 28-Aug-2014 02:22:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

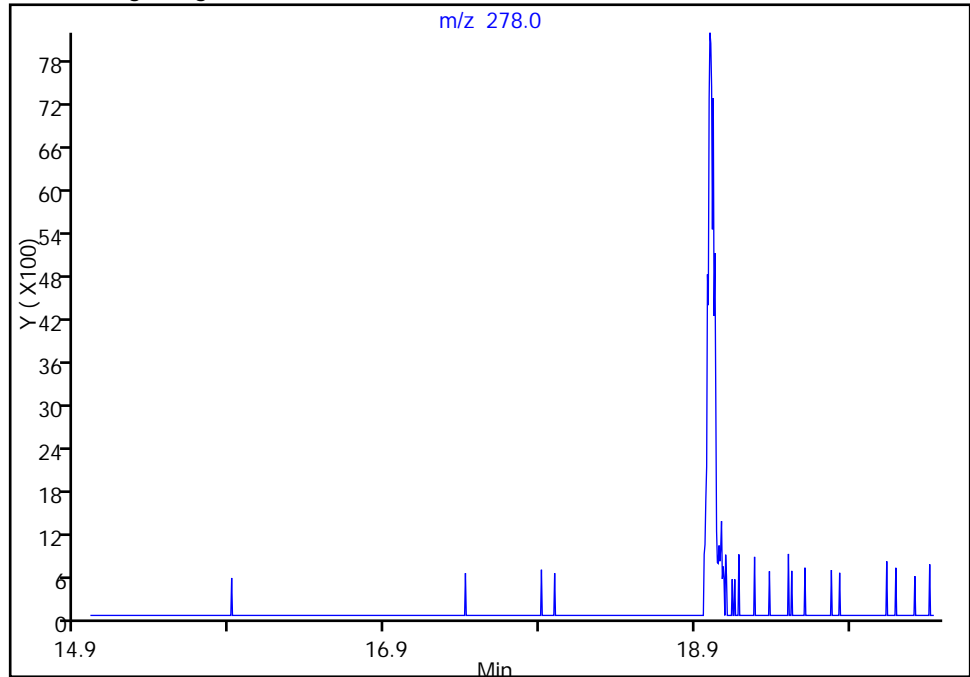
Detector: MS SCAN

## 164 Dibenz(a,h)anthracene, CAS: 53-70-3

Not Detected

Expected RT: 18.99

## Processing Integration Results

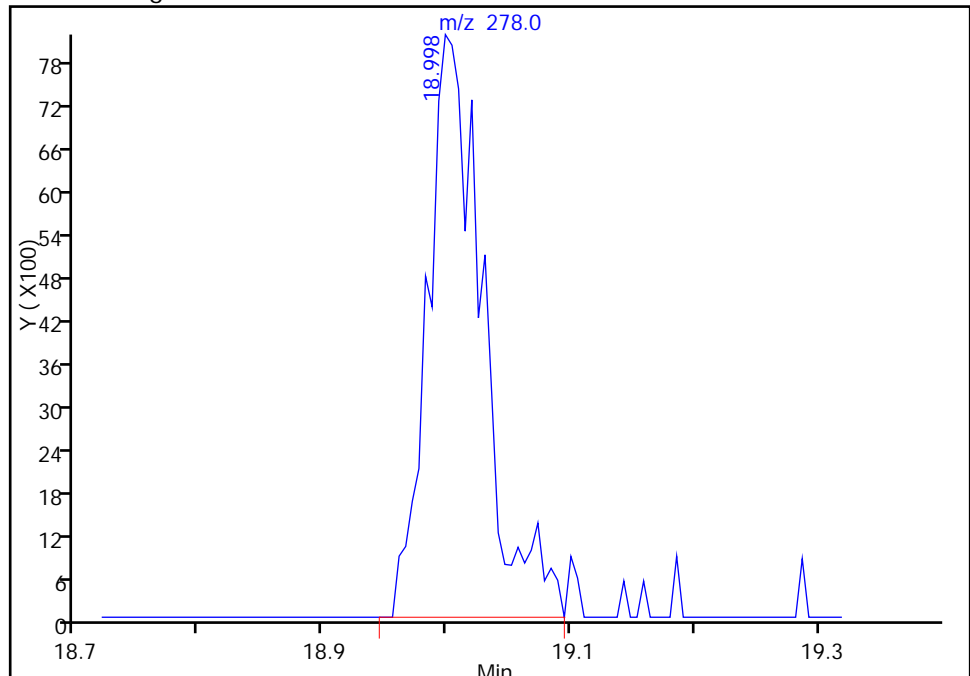


RT: 19.00

Response: 25251

Amount: 0.385157

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:00:17

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828004.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 28-Aug-2014 02:52:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-004  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:51 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 07:01:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.236	6.233	0.003	96	214989	8.00	8.00	
* 2 Naphthalene-d8	136	7.438	7.435	0.003	100	806216	8.00	8.00	
* 3 Acenaphthene-d10	164	9.051	9.053	-0.002	91	451632	8.00	8.00	
* 4 Phenanthrene-d10	188	10.413	10.415	-0.002	97	696890	8.00	8.00	
* 5 Chrysene-d12	240	13.858	13.871	-0.013	97	655465	8.00	8.00	
* 6 Perylene-d12	264	16.753	16.766	-0.013	98	467477	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.890	4.896	-0.006	92	52527	2.00	1.73	
\$ 8 Phenol-d5	99	5.878	5.885	-0.007	96	76774	2.00	1.91	
\$ 9 Nitrobenzene-d5	82	6.754	6.766	-0.012	89	71563	2.00	1.94	
\$ 10 2-Fluorobiphenyl	172	8.421	8.427	-0.006	100	152184	2.00	1.96	
\$ 11 2,4,6-Tribromophenol	330	9.772	9.778	-0.006	82	12367	2.00	1.54	
\$ 12 Terphenyl-d14	244	12.143	12.155	-0.012	98	135233	2.00	1.94	
13 1,4-Dioxane	88	1.760	1.751	0.009	88	21424	2.00	1.91	
14 N-Nitrosodimethylamine	74	2.417	2.408	0.009	0	29047	2.00	1.99	M
15 Pyridine	79	2.492	2.477	0.015	95	52391	2.00	1.88	M
22 Methyl methanesulfonate	80	4.661	4.667	-0.006	89	36720	2.00	1.85	
26 Benzaldehyde	77	5.798	5.804	-0.006	94	44708	2.00	1.85	
27 Phenol	94	5.889	5.901	-0.012	98	93324	2.00	2.00	
28 Aniline	93	5.905	5.917	-0.012	96	101649	2.00	1.94	
29 Bis(2-chloroethyl)ether	93	5.975	5.981	-0.007	97	63720	2.00	2.03	
31 2-Chlorophenol	128	6.028	6.034	-0.006	95	65021	2.00	1.81	
32 n-Decane	43	6.092	6.098	-0.006	87	61560	2.00	1.89	
33 1,3-Dichlorobenzene	146	6.177	6.189	-0.012	95	79809	2.00	1.91	
34 1,4-Dichlorobenzene	146	6.252	6.258	-0.006	94	80960	2.00	1.91	
36 Benzyl alcohol	108	6.364	6.371	-0.007	92	39811	2.00	1.85	
37 1,2-Dichlorobenzene	146	6.396	6.408	-0.012	94	76474	2.00	1.87	
38 2-Methylphenol	108	6.471	6.477	-0.006	95	59117	2.00	1.87	
39 Indene	116	6.482	6.488	-0.006	90	107110	2.00	1.86	
40 2,2'-oxybis[1-chloropropan	45	6.498	6.504	-0.006	91	80420	2.00	1.94	
41 N-Nitrosopyrrolidine	100	6.583	6.595	-0.012	82	24537	2.00	1.77	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.610	6.622	-0.012	65	61103	2.00	1.83	
43 Acetophenone	105	6.610	6.622	-0.012	80	93009	2.00	1.98	
44 N-Nitrosodi-n-propylamine	70	6.610	6.622	-0.012	67	44622	2.00	1.93	
47 Hexachloroethane	117	6.728	6.734	-0.006	94	32844	2.00	1.86	
48 Nitrobenzene	77	6.776	6.782	-0.006	87	73585	2.00	2.04	
50 Isophorone	82	7.000	7.006	-0.006	99	109324	2.00	1.86	
51 2-Nitrophenol	139	7.075	7.086	-0.011	96	28794	2.00	1.69	
52 2,4-Dimethylphenol	107	7.107	7.113	-0.006	98	72929	2.00	2.08	
56 Benzoic acid	122	7.139	7.166	-0.027	53	7493	2.00	4.32	M
55 Bis(2-chloroethoxy)methane	93	7.192	7.198	-0.006	99	76665	2.00	2.06	
57 2,4-Dichlorophenol	162	7.299	7.305	-0.006	95	54363	2.00	1.92	
59 1,2,4-Trichlorobenzene	180	7.385	7.391	-0.006	94	67235	2.00	2.03	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.459	7.466	-0.007	97	220068	2.00	2.07	
62 4-Chloroaniline	127	7.497	7.503	-0.006	95	80197	2.00	1.89	
63 2,6-Dichlorophenol	162	7.507	7.519	-0.012	94	52722	2.00	1.88	
64 Hexachlorobutadiene	225	7.571	7.583	-0.012	96	39774	2.00	2.02	
67 Caprolactam	113	7.785	7.797	-0.012	81	11179	2.00	1.45	
70 4-Chloro-3-methylphenol	107	7.924	7.930	-0.006	96	50728	2.00	1.79	
72 2-Methylnaphthalene	142	8.090	8.101	-0.011	92	143773	2.00	2.01	
75 1-Methylnaphthalene	142	8.186	8.192	-0.006	94	129702	2.00	1.94	
76 Hexachlorocyclopentadiene	237	8.244	8.251	-0.007	96	38473	2.00	1.75	
77 1,2,4,5-Tetrachlorobenzene	216	8.250	8.256	-0.006	98	69622	2.00	2.15	
78 2,4,6-Trichlorophenol	196	8.346	8.352	-0.006	92	31479	2.00	1.66	
79 2,4,5-Trichlorophenol	196	8.378	8.384	-0.006	89	34891	2.00	1.69	
80 1,1'-Biphenyl	154	8.512	8.523	-0.011	95	163741	2.00	1.98	
81 2-Chloronaphthalene	162	8.538	8.550	-0.012	97	146008	2.00	2.08	
82 2-Nitroaniline	65	8.618	8.625	-0.007	78	32745	2.00	1.91	
86 Dimethyl phthalate	163	8.768	8.774	-0.006	97	128038	2.00	1.91	
87 1,3-Dinitrobenzene	168	8.800	8.806	-0.006	84	16255	2.00	1.56	
88 2,6-Dinitrotoluene	165	8.827	8.833	-0.006	88	26786	2.00	1.80	
89 Acenaphthylene	152	8.923	8.934	-0.011	97	188998	2.00	1.93	
90 3-Nitroaniline	138	8.987	8.993	-0.006	92	28487	2.00	1.76	
91 Acenaphthene	153	9.083	9.089	-0.006	95	129085	2.00	2.04	
92 2,4-Dinitrophenol	184	9.083	9.089	-0.006	58	10471	4.00	5.33	
93 4-Nitrophenol	109	9.115	9.121	-0.006	96	32129	4.00	3.13	
94 2,4-Dinitrotoluene	165	9.195	9.207	-0.012	89	30086	2.00	1.52	
95 Dibenzofuran	168	9.233	9.244	-0.011	95	181474	2.00	1.93	
97 2,3,5,6-Tetrachlorophenol	232	9.307	9.314	-0.007	92	27259	2.00	1.55	
99 2,3,4,6-Tetrachlorophenol	232	9.345	9.351	-0.006	74	30110	2.00	1.67	
100 2-Naphthylamine	143	9.371	9.378	-0.007	95	115204	2.00	1.85	
101 Diethyl phthalate	149	9.398	9.410	-0.012	97	131476	2.00	1.97	
102 Hexadecane	57	9.409	9.415	-0.006	97	78714	2.00	1.96	
104 4-Chlorophenyl phenyl ethe	204	9.532	9.538	-0.006	94	70156	2.00	1.96	
105 4-Nitroaniline	138	9.542	9.549	-0.007	82	27322	2.00	1.68	
106 Fluorene	166	9.548	9.559	-0.011	95	140811	2.00	1.94	
108 4,6-Dinitro-2-methylphenol	198	9.574	9.581	-0.007	79	22744	4.00	4.27	
109 N-Nitrosodiphenylamine	169	9.633	9.639	-0.006	60	98114	2.00	1.91	
111 1,2-Diphenylhydrazine	77	9.676	9.682	-0.006	41	145142	2.00	2.03	
116 4-Bromophenyl phenyl ether	248	9.980	9.987	-0.007	69	36753	2.00	1.89	
118 Hexachlorobenzene	284	10.066	10.072	-0.006	92	39955	2.00	1.94	
119 Atrazine	200	10.092	10.104	-0.012	92	33445	2.00	1.87	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.237	10.238	-0.001	85	27850	4.00	3.06	
121 n-Octadecane	57	10.237	10.243	-0.006	96	75102	2.00	1.78	
126 Phenanthrene	178	10.434	10.441	-0.006	96	199508	2.00	1.97	
128 Anthracene	178	10.482	10.489	-0.007	97	189192	2.00	1.85	
130 Carbazole	167	10.621	10.627	-0.006	96	172207	2.00	1.90	
132 Di-n-butyl phthalate	149	10.910	10.916	-0.006	100	181485	2.00	1.80	
137 Fluoranthene	202	11.695	11.712	-0.017	97	197812	2.00	1.90	
138 Benzidine	184	11.823	11.835	-0.012	98	58440	2.00	1.35	
139 Pyrene	202	11.994	12.005	-0.011	98	211112	2.00	2.01	
144 Butyl benzyl phthalate	149	12.827	12.839	-0.012	98	63642	2.00	1.65	
149 3,3'-Dichlorobenzidine	252	13.767	13.779	-0.012	74	44800	2.00	1.56	
151 Bis(2-ethylhexyl) phthalat	149	13.805	13.821	-0.017	95	85031	2.00	1.64	
152 Benzo[a]anthracene	228	13.842	13.859	-0.017	96	166875	2.00	1.88	
153 Chrysene	228	13.906	13.928	-0.022	97	164598	2.00	1.92	
156 Di-n-octyl phthalate	149	15.092	15.109	-0.017	100	129950	2.00	1.72	
157 7,12-Dimethylbenz(a)anthra	256	15.946	15.963	-0.017	89	65019	2.00	1.90	
158 Benzo[b]fluoranthene	252	15.957	15.979	-0.022	97	161245	2.00	1.96	
159 Benzo[k]fluoranthene	252	16.005	16.033	-0.028	98	140103	2.00	1.86	
176 Benzo[e]pyrene	252	16.534	16.551	-0.017	0	145591	2.00	2.00	
160 Benzo[a]pyrene	252	16.630	16.658	-0.028	77	128489	2.00	1.82	
163 Indeno[1,2,3-cd]pyrene	276	18.943	18.960	-0.017	99	137298	2.00	1.88	
164 Dibenz(a,h)anthracene	278	18.969	18.992	-0.023	91	115111	2.00	1.83	
165 Benzo[g,h,i]perylene	276	19.514	19.542	-0.028	99	111825	2.00	1.83	
S 208 Methyl Phenols, Total	108				0		4.00	3.70	
S 206 Total Cresols	108				0		4.00	3.70	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD2.0i\_00005

Amount Added: 1.00

Units: mL

Report Date: 28-Aug-2014 12:51:52

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828004.D

Injection Date: 28-Aug-2014 02:52:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 4

Client ID:

Injection Vol: 2.0 ul

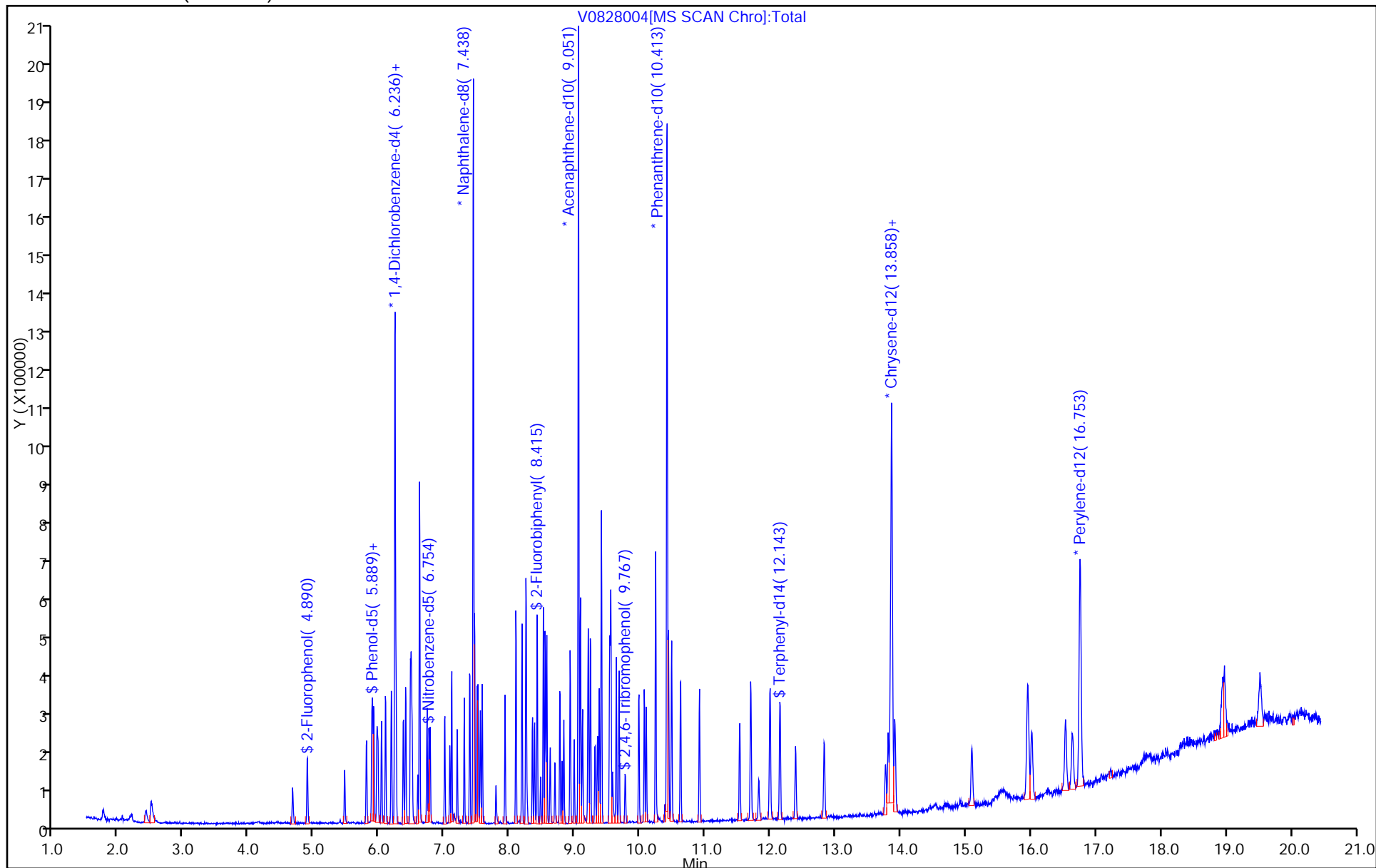
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



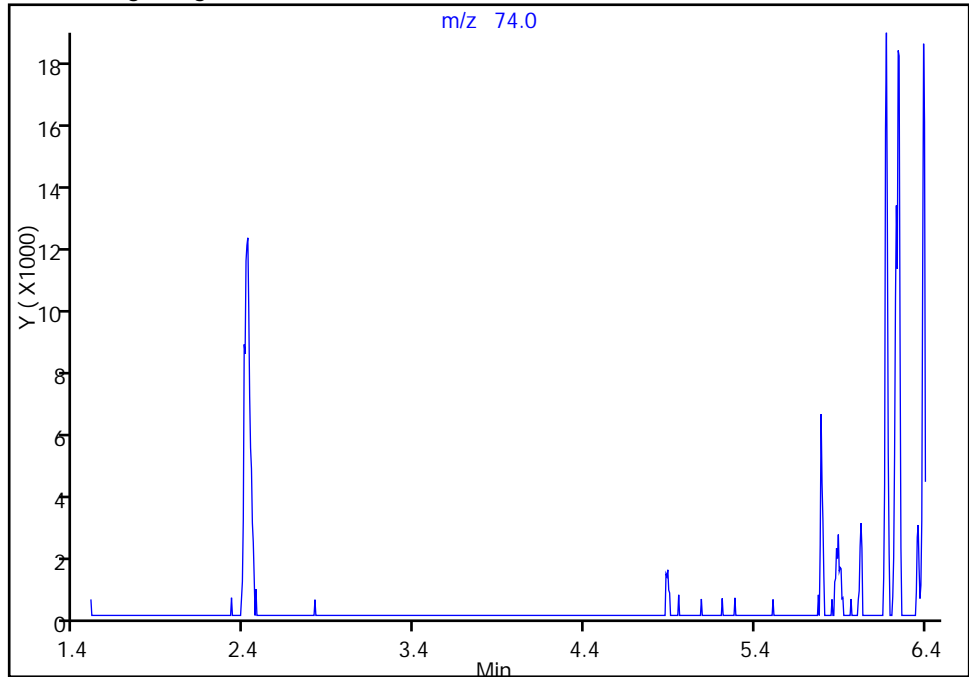
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828004.D  
Injection Date: 28-Aug-2014 02:52:30 Instrument ID: CH731  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 14 N-Nitrosodimethylamine, CAS: 62-75-9

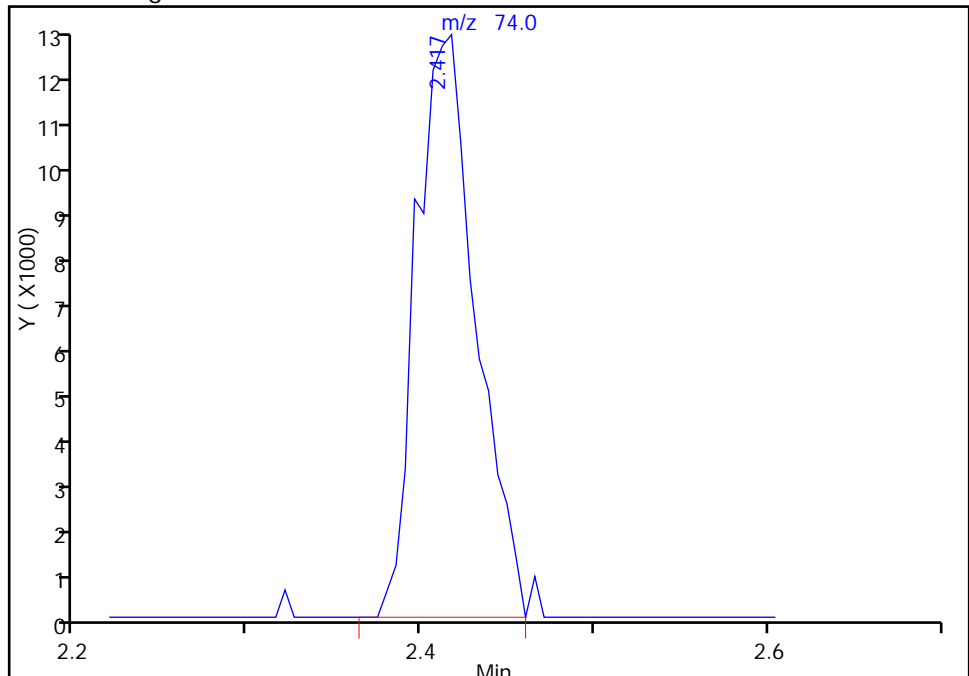
Not Detected  
Expected RT: 2.41

## Processing Integration Results



RT: 2.42  
Response: 29047  
Amount: 1.990765

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:01:19  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828004.D

Injection Date: 28-Aug-2014 02:52:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#:

3

Worklist Smp#: 4

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

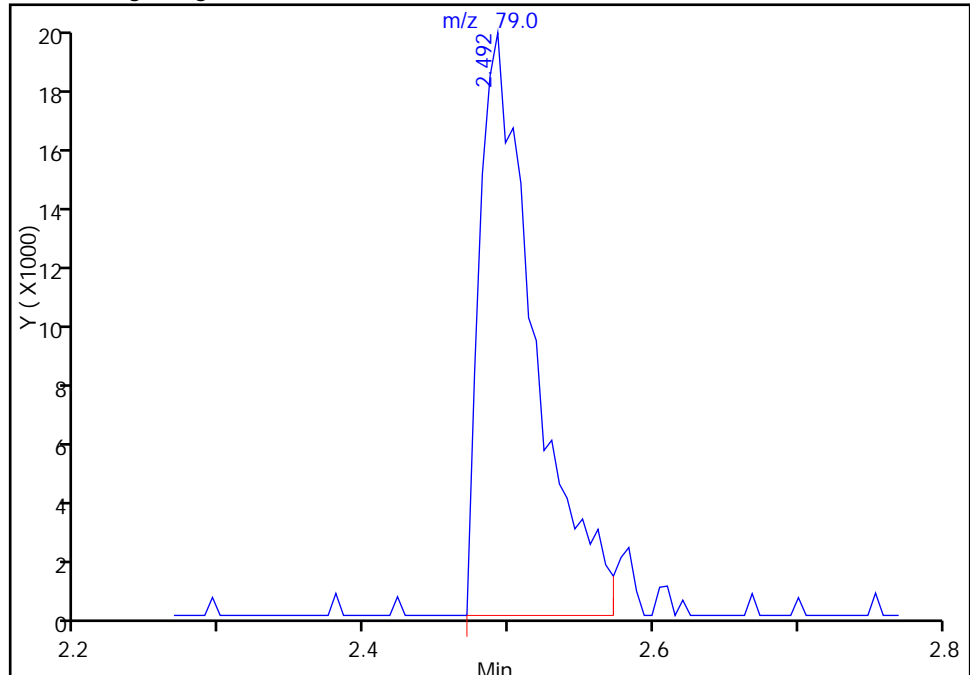
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 15 Pyridine, CAS: 110-86-1

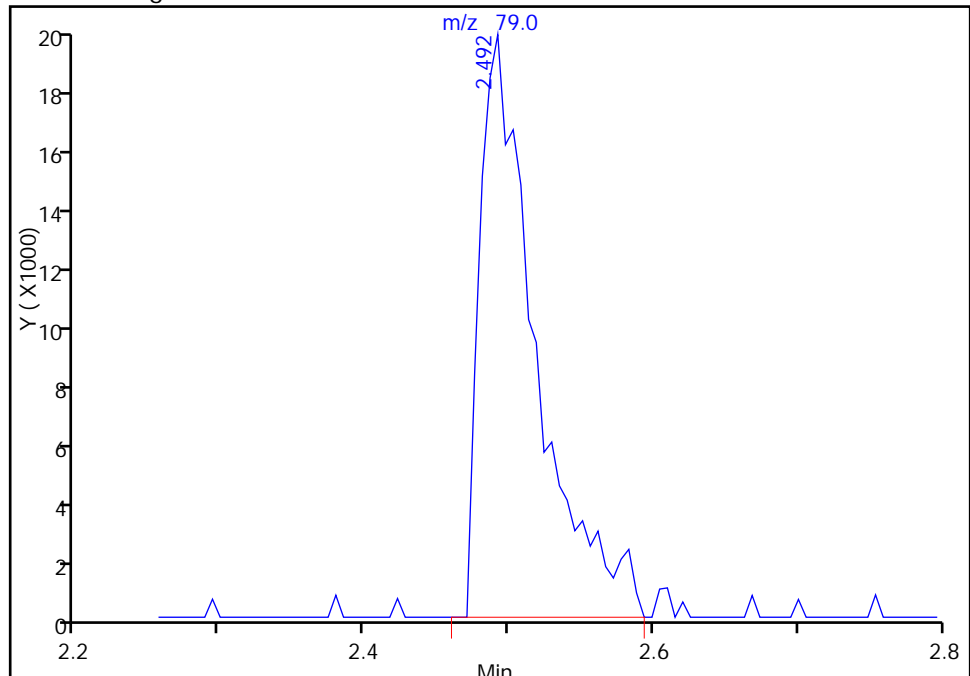
RT: 2.49  
Response: 50788  
Amount: 1.824239

## Processing Integration Results



RT: 2.49  
Response: 52391  
Amount: 1.882116

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:01:19

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

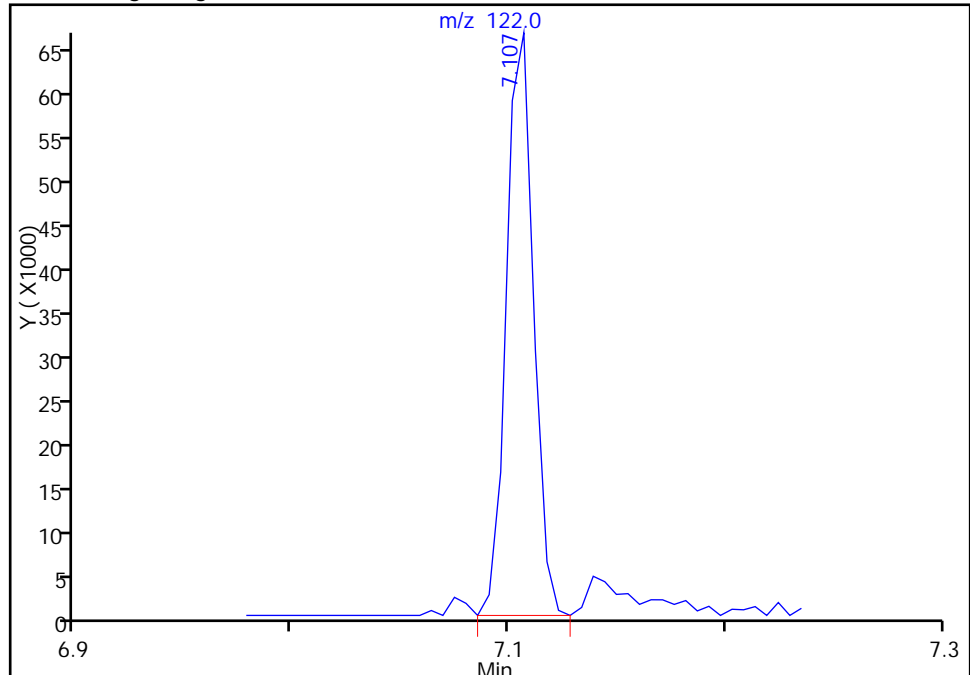
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828004.D  
Injection Date: 28-Aug-2014 02:52:30 Instrument ID: CH731  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 56 Benzoic acid, CAS: 65-85-0

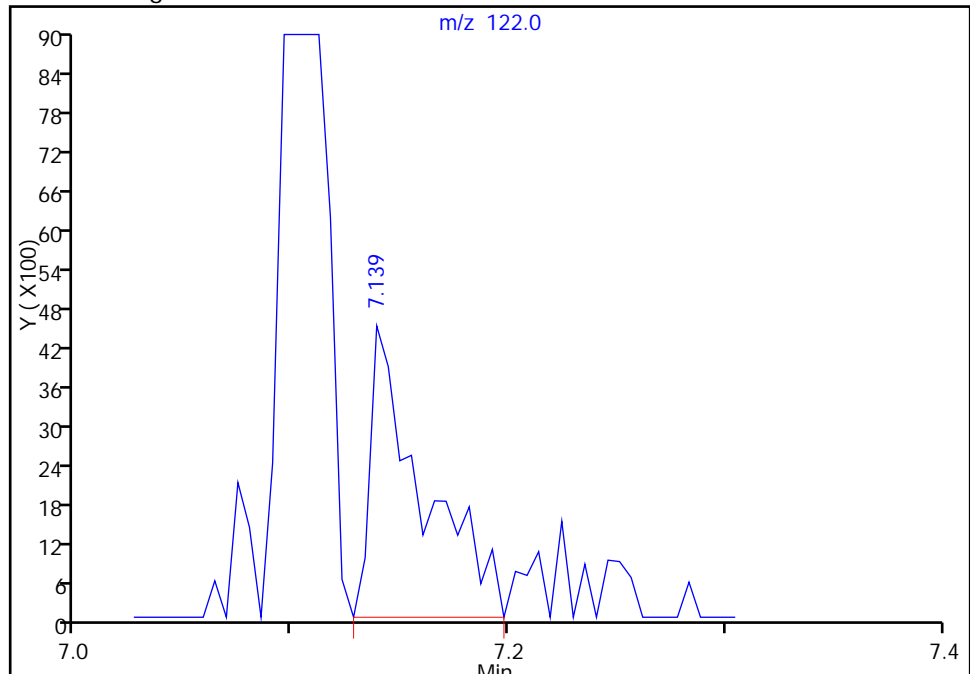
RT: 7.11  
Response: 57800  
Amount: 4.788026

## Processing Integration Results



RT: 7.14  
Response: 7493  
Amount: 4.320018

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:01:19  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828005.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 28-Aug-2014 03:21:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-005  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:53 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 07:02:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.237	6.233	0.004	94	199956	8.00	8.00	
* 2 Naphthalene-d8	136	7.439	7.435	0.004	100	786429	8.00	8.00	
* 3 Acenaphthene-d10	164	9.052	9.053	-0.001	91	451838	8.00	8.00	
* 4 Phenanthrene-d10	188	10.414	10.415	-0.001	97	697755	8.00	8.00	
* 5 Chrysene-d12	240	13.864	13.871	-0.007	98	636601	8.00	8.00	
* 6 Perylene-d12	264	16.759	16.766	-0.007	98	462145	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.891	4.896	-0.005	92	110762	4.00	3.92	
\$ 8 Phenol-d5	99	5.885	5.885	0.000	97	151513	4.00	4.05	
\$ 9 Nitrobenzene-d5	82	6.761	6.766	-0.005	88	146750	4.00	4.08	
\$ 10 2-Fluorobiphenyl	172	8.422	8.427	-0.005	100	309219	4.00	3.97	
\$ 11 2,4,6-Tribromophenol	330	9.773	9.778	-0.005	87	26167	4.00	3.25	
\$ 12 Terphenyl-d14	244	12.150	12.155	-0.005	98	272994	4.00	4.04	
13 1,4-Dioxane	88	1.761	1.751	0.010	88	42127	4.00	4.04	
14 N-Nitrosodimethylamine	74	2.413	2.408	0.005	90	53024	4.00	3.91	
15 Pyridine	79	2.482	2.477	0.005	97	102734	4.00	3.97	
22 Methyl methanesulfonate	80	4.662	4.667	-0.005	89	74501	4.00	4.04	
26 Benzaldehyde	77	5.799	5.804	-0.005	96	97582	4.00	4.35	
27 Phenol	94	5.895	5.901	-0.006	98	173459	4.00	4.00	
28 Aniline	93	5.911	5.917	-0.006	97	204493	4.00	4.19	
29 Bis(2-chloroethyl)ether	93	5.976	5.981	-0.005	96	124116	4.00	4.25	
31 2-Chlorophenol	128	6.034	6.034	0.000	96	137950	4.00	4.13	
32 n-Decane	43	6.093	6.098	-0.005	87	122969	4.00	4.05	
33 1,3-Dichlorobenzene	146	6.184	6.189	-0.005	97	159244	4.00	4.09	
34 1,4-Dichlorobenzene	146	6.253	6.258	-0.005	93	157978	4.00	4.02	
36 Benzyl alcohol	108	6.365	6.371	-0.006	92	80463	4.00	4.03	
37 1,2-Dichlorobenzene	146	6.403	6.408	-0.005	94	150661	4.00	3.97	
38 2-Methylphenol	108	6.472	6.477	-0.005	95	122943	4.00	4.17	
39 Indene	116	6.488	6.488	0.000	91	220148	4.00	4.11	
40 2,2'-oxybis[1-chloropropan	45	6.499	6.504	-0.005	91	161680	4.00	4.19	
41 N-Nitrosopyrrolidine	100	6.590	6.595	-0.005	87	50981	4.00	3.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.616	6.622	-0.006	65	127159	4.00	4.10	
43 Acetophenone	105	6.616	6.622	-0.006	81	184290	4.00	4.21	
44 N-Nitrosodi-n-propylamine	70	6.616	6.622	-0.006	67	90887	4.00	4.22	
47 Hexachloroethane	117	6.729	6.734	-0.005	95	67646	4.00	4.11	
48 Nitrobenzene	77	6.777	6.782	-0.005	88	141912	4.00	4.04	
50 Isophorone	82	7.001	7.006	-0.005	99	224393	4.00	3.91	
51 2-Nitrophenol	139	7.081	7.086	-0.005	95	65629	4.00	3.96	
52 2,4-Dimethylphenol	107	7.108	7.113	-0.005	97	141804	4.00	4.15	
56 Benzoic acid	122	7.151	7.166	-0.015	92	22751	4.00	5.40	M
55 Bis(2-chloroethoxy)methane	93	7.193	7.198	-0.005	98	143068	4.00	3.95	
57 2,4-Dichlorophenol	162	7.300	7.305	-0.005	94	112597	4.00	4.07	
59 1,2,4-Trichlorobenzene	180	7.386	7.391	-0.005	94	132099	4.00	4.09	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.460	7.466	-0.006	96	405113	4.00	3.91	
62 4-Chloroaniline	127	7.498	7.503	-0.005	95	164829	4.00	3.98	
63 2,6-Dichlorophenol	162	7.514	7.519	-0.005	97	109854	4.00	4.01	
64 Hexachlorobutadiene	225	7.578	7.583	-0.005	96	77387	4.00	4.03	
67 Caprolactam	113	7.786	7.797	-0.011	82	25057	4.00	3.34	
70 4-Chloro-3-methylphenol	107	7.925	7.930	-0.005	95	111675	4.00	4.03	
72 2-Methylnaphthalene	142	8.096	8.101	-0.005	92	278236	4.00	3.99	
75 1-Methylnaphthalene	142	8.187	8.192	-0.005	93	265314	4.00	4.07	
76 Hexachlorocyclopentadiene	237	8.245	8.251	-0.006	96	86028	4.00	3.90	
77 1,2,4,5-Tetrachlorobenzene	216	8.251	8.256	-0.005	98	125752	4.00	3.87	
78 2,4,6-Trichlorophenol	196	8.347	8.352	-0.005	92	70441	4.00	3.71	
79 2,4,5-Trichlorophenol	196	8.379	8.384	-0.005	91	81276	4.00	3.95	
80 1,1'-Biphenyl	154	8.518	8.523	-0.005	94	327233	4.00	3.96	
81 2-Chloronaphthalene	162	8.545	8.550	-0.005	97	272610	4.00	3.89	
82 2-Nitroaniline	65	8.619	8.625	-0.006	82	67125	4.00	3.91	
86 Dimethyl phthalate	163	8.769	8.774	-0.005	97	265765	4.00	3.97	
87 1,3-Dinitrobenzene	168	8.801	8.806	-0.005	84	37549	4.00	3.61	
88 2,6-Dinitrotoluene	165	8.828	8.833	-0.005	93	63443	4.00	4.25	
89 Acenaphthylene	152	8.924	8.934	-0.010	98	378057	4.00	3.86	
90 3-Nitroaniline	138	8.988	8.993	-0.005	92	62311	4.00	3.85	
91 Acenaphthene	153	9.084	9.089	-0.005	94	246511	4.00	3.89	
92 2,4-Dinitrophenol	184	9.084	9.089	-0.005	59	29877	8.00	7.25	
93 4-Nitrophenol	109	9.116	9.121	-0.005	95	72543	8.00	7.05	
94 2,4-Dinitrotoluene	165	9.202	9.207	-0.005	91	76043	4.00	3.84	
95 Dibenzofuran	168	9.239	9.244	-0.005	95	365453	4.00	3.88	
97 2,3,5,6-Tetrachlorophenol	232	9.308	9.314	-0.006	92	61782	4.00	3.51	
99 2,3,4,6-Tetrachlorophenol	232	9.346	9.351	-0.005	73	67900	4.00	3.76	
100 2-Naphthylamine	143	9.372	9.378	-0.006	96	242446	4.00	3.90	
101 Diethyl phthalate	149	9.404	9.410	-0.006	97	264570	4.00	3.96	
102 Hexadecane	57	9.410	9.415	-0.005	97	157054	4.00	4.01	
104 4-Chlorophenyl phenyl ethe	204	9.533	9.538	-0.005	96	136472	4.00	3.80	
105 4-Nitroaniline	138	9.543	9.549	-0.006	86	58770	4.00	3.61	
106 Fluorene	166	9.554	9.559	-0.005	96	286453	4.00	3.94	
108 4,6-Dinitro-2-methylphenol	198	9.575	9.581	-0.006	78	57806	8.00	7.15	
109 N-Nitrosodiphenylamine	169	9.634	9.639	-0.005	63	203953	4.00	3.96	
111 1,2-Diphenylhydrazine	77	9.677	9.682	-0.005	41	289045	4.00	4.03	
116 4-Bromophenyl phenyl ether	248	9.981	9.987	-0.006	69	75556	4.00	3.88	
118 Hexachlorobenzene	284	10.067	10.072	-0.005	92	81729	4.00	3.96	
119 Atrazine	200	10.093	10.104	-0.011	92	70395	4.00	3.93	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.238	10.238	0.000	88	73430	8.00	6.57	M
121 n-Octadecane	57	10.238	10.243	-0.005	98	157046	4.00	3.99	
126 Phenanthrene	178	10.435	10.441	-0.005	97	401449	4.00	3.96	
128 Anthracene	178	10.483	10.489	-0.006	97	393720	4.00	3.85	
130 Carbazole	167	10.622	10.627	-0.005	96	354062	4.00	3.91	
132 Di-n-butyl phthalate	149	10.911	10.916	-0.005	100	372723	4.00	3.69	
137 Fluoranthene	202	11.701	11.712	-0.011	97	410592	4.00	3.94	
138 Benzidine	184	11.824	11.835	-0.011	99	130316	4.00	3.11	
139 Pyrene	202	11.995	12.005	-0.010	98	418106	4.00	4.10	
144 Butyl benzyl phthalate	149	12.828	12.839	-0.011	99	134198	4.00	3.58	
149 3,3'-Dichlorobenzidine	252	13.768	13.779	-0.011	74	94477	4.00	3.38	
151 Bis(2-ethylhexyl) phthalat	149	13.811	13.821	-0.010	97	169769	4.00	3.38	
152 Benzo[a]anthracene	228	13.843	13.859	-0.016	97	341304	4.00	3.95	
153 Chrysene	228	13.912	13.928	-0.016	97	333415	4.00	4.00	
156 Di-n-octyl phthalate	149	15.098	15.109	-0.011	99	255513	4.00	3.42	
157 7,12-Dimethylbenz(a)anthra	256	15.947	15.963	-0.016	93	126710	4.00	3.74	
158 Benzo[b]fluoranthene	252	15.958	15.979	-0.021	97	313660	4.00	3.87	
159 Benzo[k]fluoranthene	252	16.017	16.033	-0.016	99	296212	4.00	3.97	
176 Benzo[e]pyrene	252	16.535	16.551	-0.016	0	272146	4.00	3.78	
160 Benzo[a]pyrene	252	16.642	16.658	-0.016	77	254507	4.00	3.65	
163 Indeno[1,2,3-cd]pyrene	276	18.944	18.960	-0.016	99	272496	4.00	3.77	
164 Dibenz(a,h)anthracene	278	18.970	18.992	-0.022	89	232359	4.00	3.73	
165 Benzo[g,h,i]perylene	276	19.520	19.542	-0.022	99	228154	4.00	3.79	
S 208 Methyl Phenols, Total	108				0		8.00	8.27	
S 206 Total Cresols	108				0		8.00	8.27	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD4.0i\_00006

Amount Added: 1.00

Units: mL

Report Date: 28-Aug-2014 12:51:54

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828005.D

Injection Date: 28-Aug-2014 03:21:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 5

Client ID:

Injection Vol: 2.0 ul

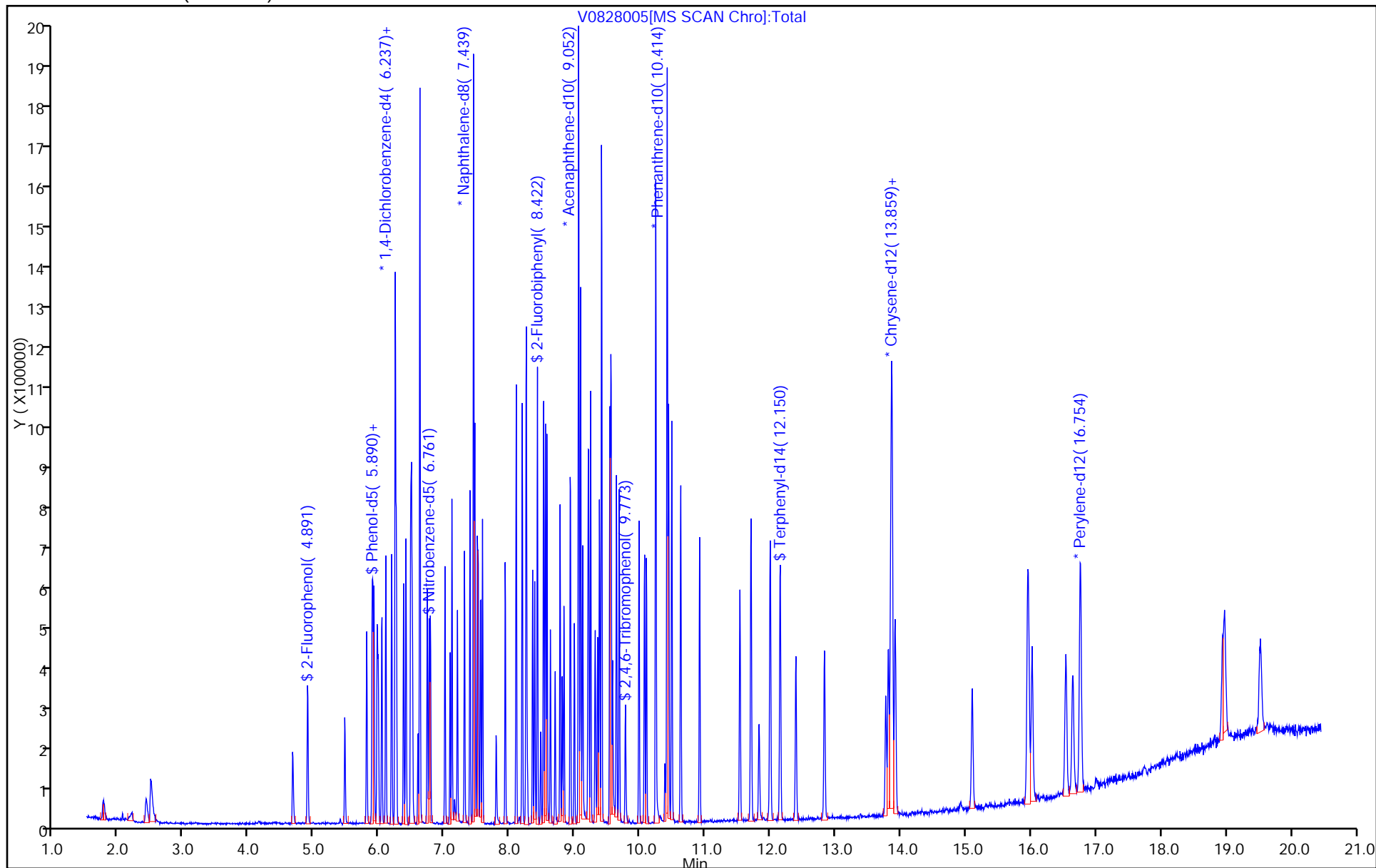
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828005.D

Injection Date: 28-Aug-2014 03:21:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#:

4

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

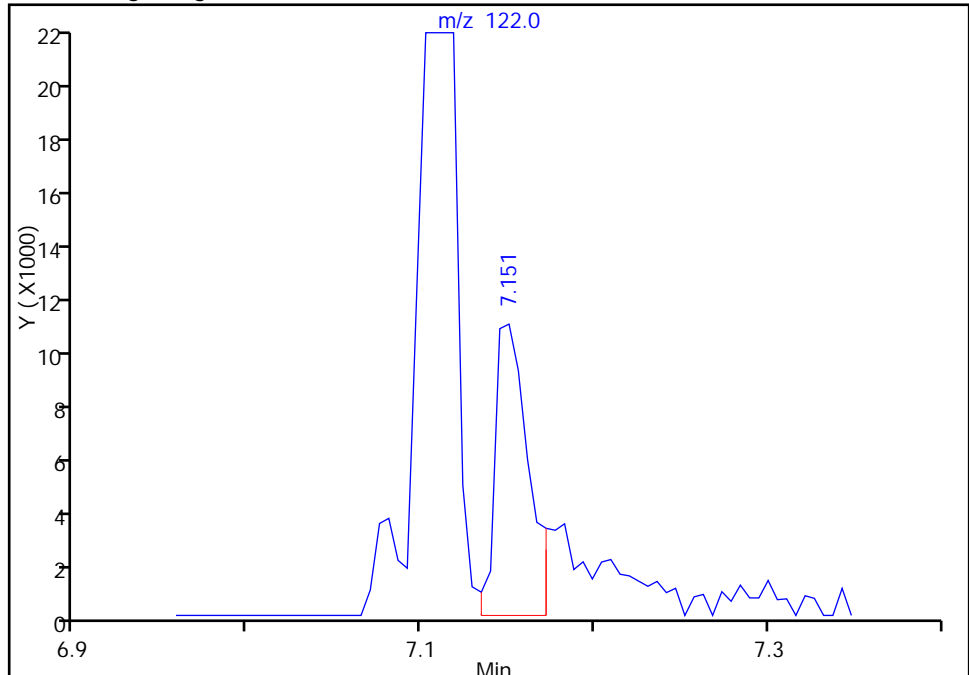
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

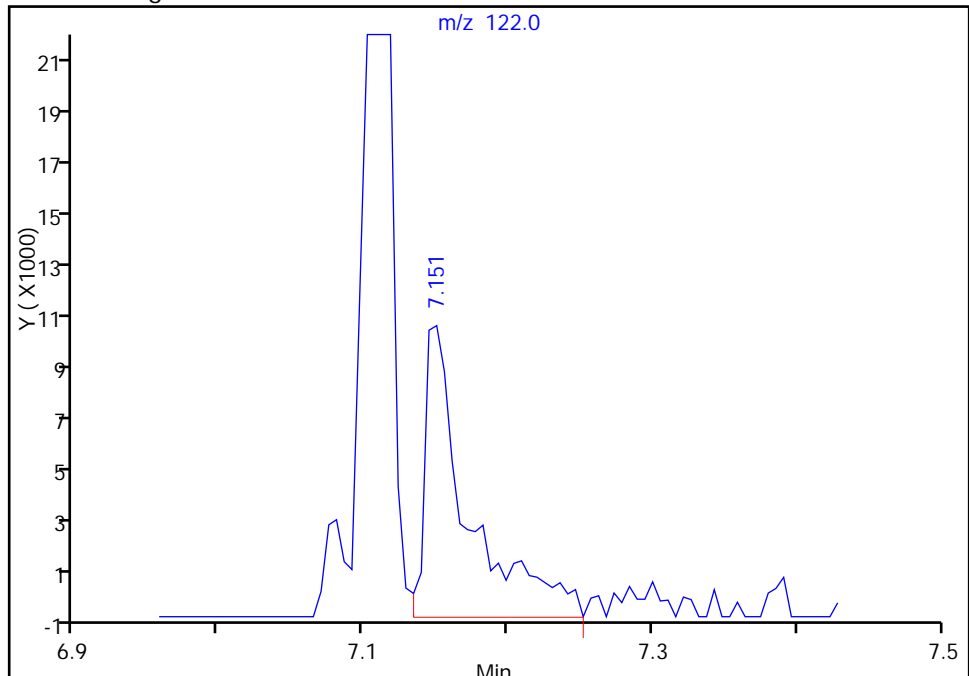
## 56 Benzoic acid, CAS: 65-85-0

RT: 7.15  
Response: 14777  
Amount: 1.786747

## Processing Integration Results

RT: 7.15  
Response: 22751  
Amount: 5.401347

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:02:54

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828005.D

Injection Date: 28-Aug-2014 03:21:30

Instrument ID: CH731

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 4

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

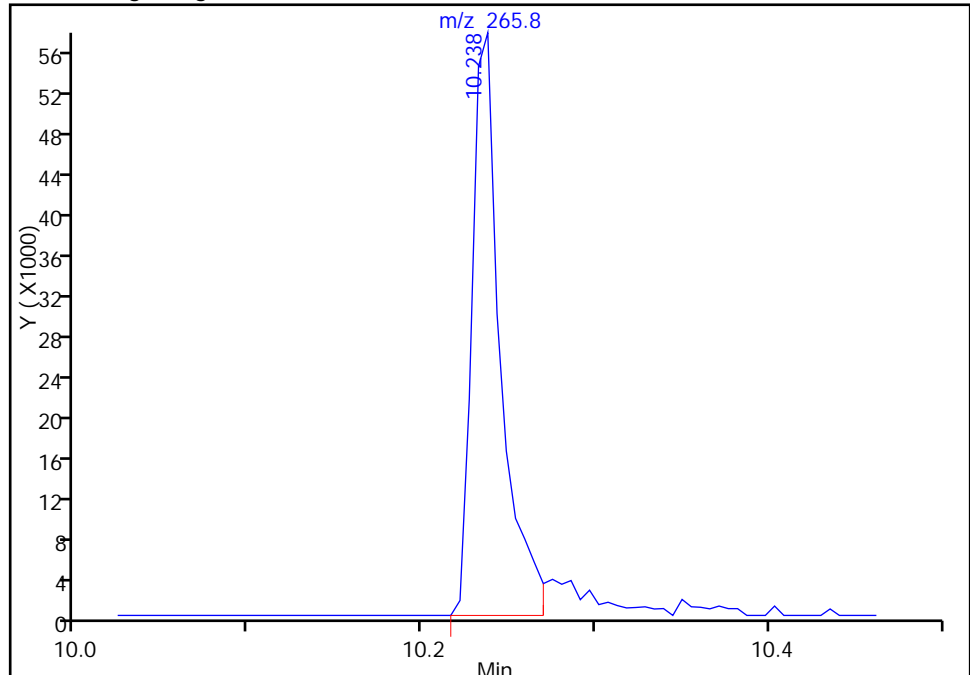
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 122 Pentachlorophenol, CAS: 87-86-5

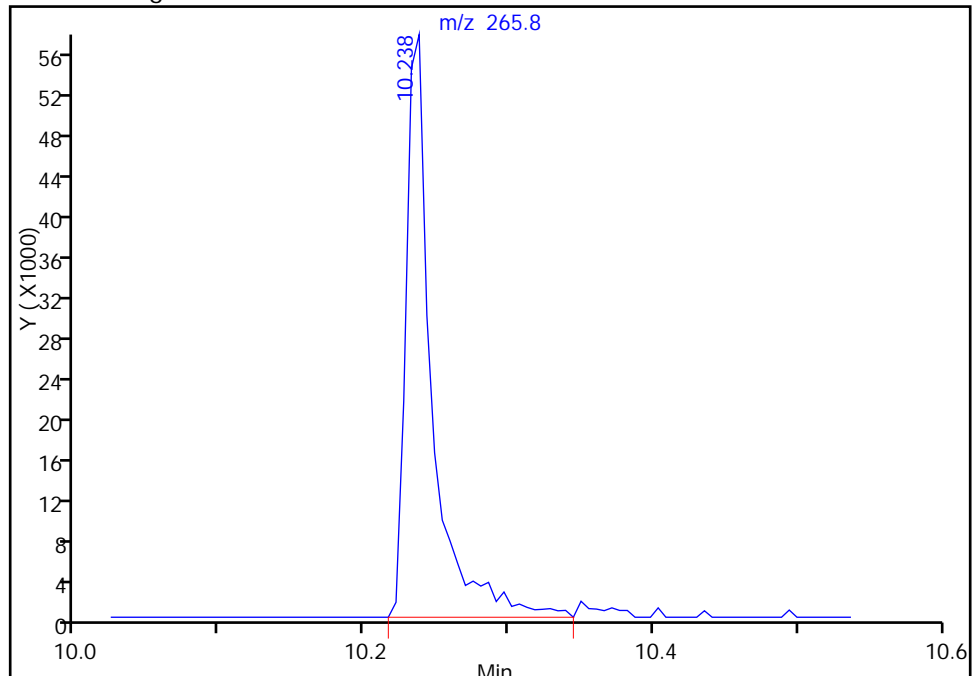
RT: 10.24  
Response: 66605  
Amount: 6.715674

## Processing Integration Results



RT: 10.24  
Response: 73430  
Amount: 6.572658

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:02:54

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828006.D  
 Lims ID: ICIS  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 28-Aug-2014 03:50:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-006  
 Misc. Info.: ICIS  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:55 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 06:36:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.242	6.242	0.000	94	204587	8.00	8.00	
* 2 Naphthalene-d8	136	7.444	7.444	0.000	100	794181	8.00	8.00	
* 3 Acenaphthene-d10	164	9.057	9.057	0.000	92	443884	8.00	8.00	
* 4 Phenanthrene-d10	188	10.419	10.419	0.000	97	716583	8.00	8.00	
* 5 Chrysene-d12	240	13.875	13.875	0.000	97	689244	8.00	8.00	
* 6 Perylene-d12	264	16.775	16.775	0.000	98	500563	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.896	4.896	0.000	93	304483	10.0	10.5	
\$ 8 Phenol-d5	99	5.885	5.885	0.000	96	401379	10.0	10.5	
\$ 9 Nitrobenzene-d5	82	6.766	6.766	0.000	90	372501	10.0	10.3	
\$ 10 2-Fluorobiphenyl	172	8.427	8.427	0.000	100	752957	10.0	9.85	
\$ 11 2,4,6-Tribromophenol	330	9.778	9.778	0.000	86	73461	10.0	8.89	
\$ 12 Terphenyl-d14	244	12.155	12.155	0.000	99	723485	10.0	9.89	
13 1,4-Dioxane	88	1.751	1.751	0.000	88	108837	10.0	10.2	
14 N-Nitrosodimethylamine	74	2.408	2.408	0.000	90	138730	10.0	10.0	
15 Pyridine	79	2.477	2.477	0.000	98	270663	10.0	10.2	
22 Methyl methanesulfonate	80	4.667	4.667	0.000	89	190719	10.0	10.1	
26 Benzaldehyde	77	5.804	5.804	0.000	95	229449	10.0	10.0	
27 Phenol	94	5.901	5.901	0.000	98	441527	10.0	9.96	
28 Aniline	93	5.917	5.917	0.000	98	511912	10.0	10.2	
29 Bis(2-chloroethyl)ether	93	5.981	5.981	0.000	96	302027	10.0	10.1	
31 2-Chlorophenol	128	6.034	6.034	0.000	96	350886	10.0	10.3	
32 n-Decane	43	6.098	6.098	0.000	87	304773	10.0	9.82	
33 1,3-Dichlorobenzene	146	6.189	6.189	0.000	97	399399	10.0	10.0	
34 1,4-Dichlorobenzene	146	6.258	6.258	0.000	93	401653	10.0	9.98	
36 Benzyl alcohol	108	6.371	6.371	0.000	90	205033	10.0	10.0	
37 1,2-Dichlorobenzene	146	6.408	6.408	0.000	96	389138	10.0	10.0	
38 2-Methylphenol	108	6.477	6.477	0.000	97	314284	10.0	10.4	
39 Indene	116	6.488	6.488	0.000	91	557043	10.0	10.2	
40 2,2'-oxybis[1-chloropropan	45	6.504	6.504	0.000	91	395704	10.0	10.0	
41 N-Nitrosopyrrolidine	100	6.595	6.595	0.000	88	140956	10.0	10.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.622	6.622	0.000	65	333085	10.0	10.5	
43 Acetophenone	105	6.622	6.622	0.000	82	454136	10.0	10.1	
44 N-Nitrosodi-n-propylamine	70	6.622	6.622	0.000	68	225609	10.0	10.2	
47 Hexachloroethane	117	6.734	6.734	0.000	96	166877	10.0	9.91	
48 Nitrobenzene	77	6.782	6.782	0.000	88	360634	10.0	10.2	
50 Isophorone	82	7.006	7.006	0.000	99	585359	10.0	10.1	
51 2-Nitrophenol	139	7.086	7.086	0.000	97	173147	10.0	10.3	
52 2,4-Dimethylphenol	107	7.113	7.113	0.000	97	350918	10.0	10.2	
56 Benzoic acid	122	7.166	7.166	0.000	92	78276	10.0	9.17	M
55 Bis(2-chloroethoxy)methane	93	7.198	7.198	0.000	99	367335	10.0	10.0	
57 2,4-Dichlorophenol	162	7.305	7.305	0.000	95	290414	10.0	10.4	
59 1,2,4-Trichlorobenzene	180	7.391	7.391	0.000	94	319449	10.0	9.80	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.466	7.466	0.000	97	1019715	10.0	9.74	
62 4-Chloroaniline	127	7.503	7.503	0.000	95	421519	10.0	10.1	
63 2,6-Dichlorophenol	162	7.519	7.519	0.000	96	284833	10.0	10.3	
64 Hexachlorobutadiene	225	7.583	7.583	0.000	97	193273	10.0	9.96	
67 Caprolactam	113	7.797	7.797	0.000	80	76814	10.0	10.1	
70 4-Chloro-3-methylphenol	107	7.930	7.930	0.000	96	289412	10.0	10.3	
72 2-Methylnaphthalene	142	8.101	8.101	0.000	93	688905	10.0	9.77	
75 1-Methylnaphthalene	142	8.192	8.192	0.000	93	653939	10.0	9.94	
76 Hexachlorocyclopentadiene	237	8.251	8.251	0.000	98	217522	10.0	10.0	
77 1,2,4,5-Tetrachlorobenzene	216	8.256	8.256	0.000	98	324206	10.0	10.2	
78 2,4,6-Trichlorophenol	196	8.352	8.352	0.000	94	193507	10.0	10.4	
79 2,4,5-Trichlorophenol	196	8.384	8.384	0.000	94	213844	10.0	10.6	
80 1,1'-Biphenyl	154	8.523	8.523	0.000	94	808866	10.0	9.95	
81 2-Chloronaphthalene	162	8.550	8.550	0.000	97	662481	10.0	9.62	
82 2-Nitroaniline	65	8.625	8.625	0.000	80	180046	10.0	10.7	
86 Dimethyl phthalate	163	8.774	8.774	0.000	98	677069	10.0	10.3	
87 1,3-Dinitrobenzene	168	8.806	8.806	0.000	85	106941	10.0	10.5	
88 2,6-Dinitrotoluene	165	8.833	8.833	0.000	93	154574	10.0	10.5	
89 Acenaphthylene	152	8.934	8.934	0.000	98	962109	10.0	10.0	
90 3-Nitroaniline	138	8.993	8.993	0.000	92	163191	10.0	10.3	
91 Acenaphthene	153	9.089	9.089	0.000	90	628451	10.0	10.1	
92 2,4-Dinitrophenol	184	9.089	9.089	0.000	64	120603	20.0	16.5	
93 4-Nitrophenol	109	9.121	9.121	0.000	95	214759	20.0	21.3	
94 2,4-Dinitrotoluene	165	9.207	9.207	0.000	92	203798	10.0	10.5	
95 Dibenzofuran	168	9.244	9.244	0.000	95	910846	10.0	9.84	
97 2,3,5,6-Tetrachlorophenol	232	9.314	9.314	0.000	93	171893	10.0	9.95	
99 2,3,4,6-Tetrachlorophenol	232	9.351	9.351	0.000	74	181948	10.0	10.3	
100 2-Naphthylamine	143	9.378	9.378	0.000	96	634575	10.0	10.4	
101 Diethyl phthalate	149	9.410	9.410	0.000	97	671989	10.0	10.2	
102 Hexadecane	57	9.415	9.415	0.000	97	403872	10.0	10.2	
104 4-Chlorophenyl phenyl ethe	204	9.538	9.538	0.000	95	352072	10.0	9.99	
105 4-Nitroaniline	138	9.549	9.549	0.000	84	162215	10.0	10.1	
106 Fluorene	166	9.559	9.559	0.000	95	715011	10.0	10.0	
108 4,6-Dinitro-2-methylphenol	198	9.581	9.581	0.000	82	200505	20.0	18.4	
109 N-Nitrosodiphenylamine	169	9.639	9.639	0.000	62	528681	10.0	10.0	
111 1,2-Diphenylhydrazine	77	9.682	9.682	0.000	41	757222	10.0	10.3	
116 4-Bromophenyl phenyl ether	248	9.987	9.987	0.000	68	200977	10.0	10.0	
118 Hexachlorobenzene	284	10.072	10.072	0.000	93	202694	10.0	9.55	
119 Atrazine	200	10.104	10.104	0.000	93	191127	10.0	10.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.238	10.238	0.000	91	216978	20.0	17.2	
121 n-Octadecane	57	10.243	10.243	0.000	97	415310	10.0	10.3	
126 Phenanthrene	178	10.441	10.441	0.000	97	1028028	10.0	9.86	
128 Anthracene	178	10.489	10.489	0.000	97	1047050	10.0	9.97	
130 Carbazole	167	10.627	10.627	0.000	96	922223	10.0	9.91	
132 Di-n-butyl phthalate	149	10.916	10.916	0.000	100	1059382	10.0	10.2	
137 Fluoranthene	202	11.712	11.712	0.000	97	1078323	10.0	10.1	
138 Benzidine	184	11.835	11.835	0.000	99	414692	10.0	9.13	
139 Pyrene	202	12.005	12.005	0.000	98	1083910	10.0	9.83	
144 Butyl benzyl phthalate	149	12.839	12.839	0.000	99	400367	10.0	9.86	
149 3,3'-Dichlorobenzidine	252	13.779	13.779	0.000	75	284602	10.0	9.41	
151 Bis(2-ethylhexyl) phthalat	149	13.821	13.821	0.000	96	536404	10.0	9.86	
152 Benzo[a]anthracene	228	13.859	13.859	0.000	97	932305	10.0	9.98	
153 Chrysene	228	13.928	13.928	0.000	97	894674	10.0	9.92	
156 Di-n-octyl phthalate	149	15.109	15.109	0.000	99	806446	10.0	9.95	
157 7,12-Dimethylbenz(a)anthra	256	15.963	15.963	0.000	93	367614	10.0	10.0	
158 Benzo[b]fluoranthene	252	15.979	15.979	0.000	98	882916	10.0	10.0	
159 Benzo[k]fluoranthene	252	16.033	16.033	0.000	99	824483	10.0	10.2	
176 Benzo[e]pyrene	252	16.551	16.551	0.000	0	778434	10.0	9.99	
160 Benzo[a]pyrene	252	16.658	16.658	0.000	76	738921	10.0	9.78	
163 Indeno[1,2,3-cd]pyrene	276	18.960	18.960	0.000	99	765394	10.0	9.77	
164 Dibenz(a,h)anthracene	278	18.992	18.992	0.000	86	656067	10.0	9.74	
165 Benzo[g,h,i]perylene	276	19.542	19.542	0.000	99	641513	10.0	9.83	
S 208 Methyl Phenols, Total	108				0		20.0	20.9	
S 206 Total Cresols	108				0		20.0	20.9	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD10i\_00069

Amount Added: 1.00

Units: mL

Report Date: 28-Aug-2014 12:51:56

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828006.D

Injection Date: 28-Aug-2014 03:50:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: ICIS

Worklist Smp#: 6

Client ID:

Injection Vol: 2.0 ul

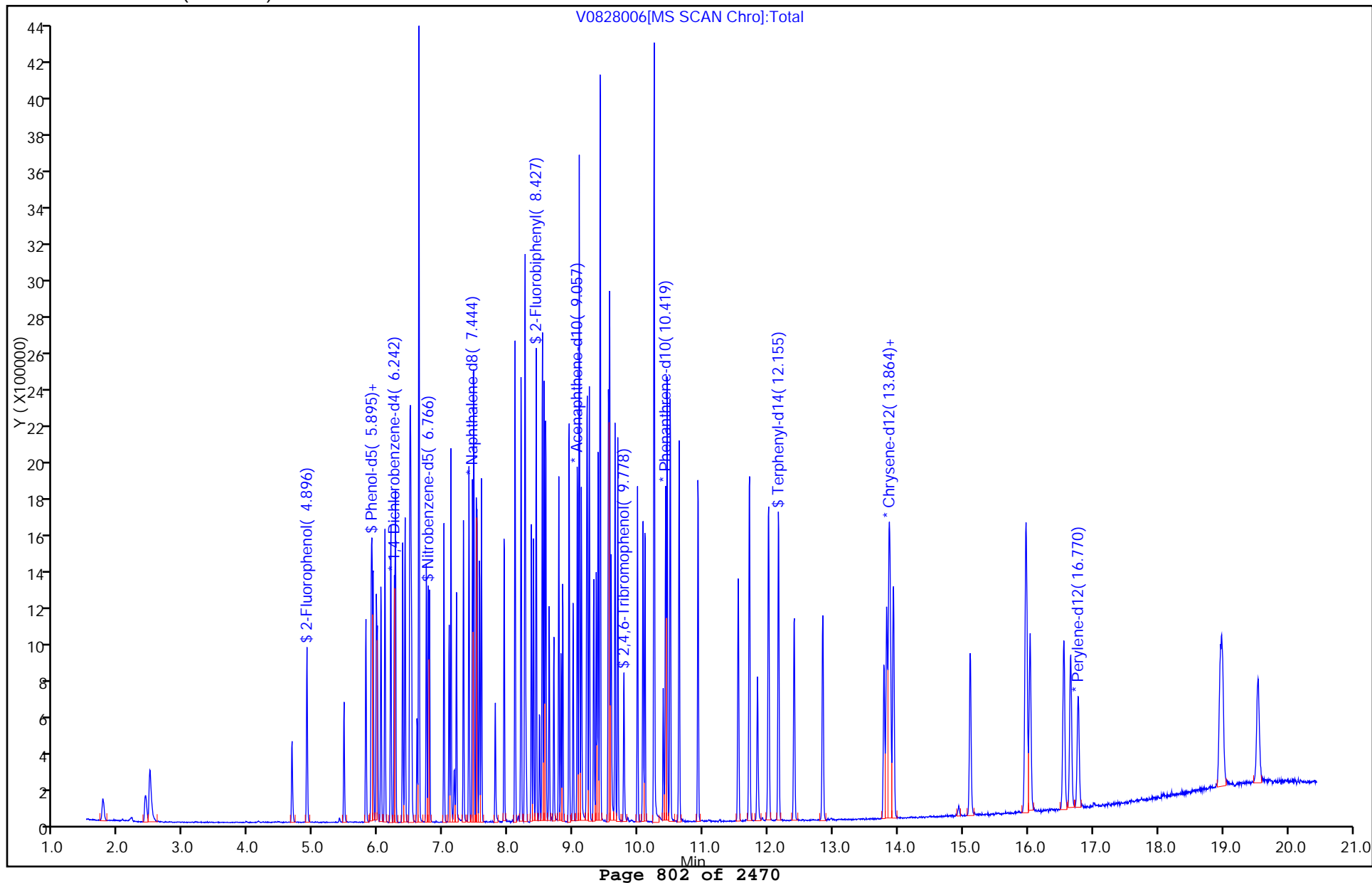
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)





## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828006.D

Injection Date: 28-Aug-2014 03:50:30

Instrument ID: CH731

Lims ID: ICIS

Client ID:

Operator ID: 003200

ALS Bottle#: 5

Worklist Smp#: 6

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

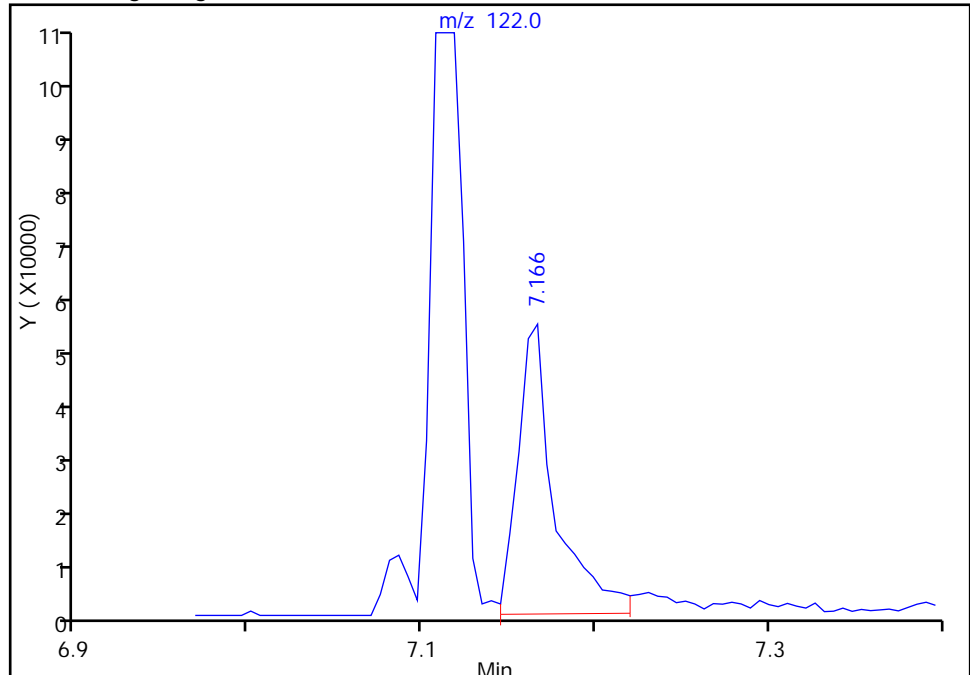
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

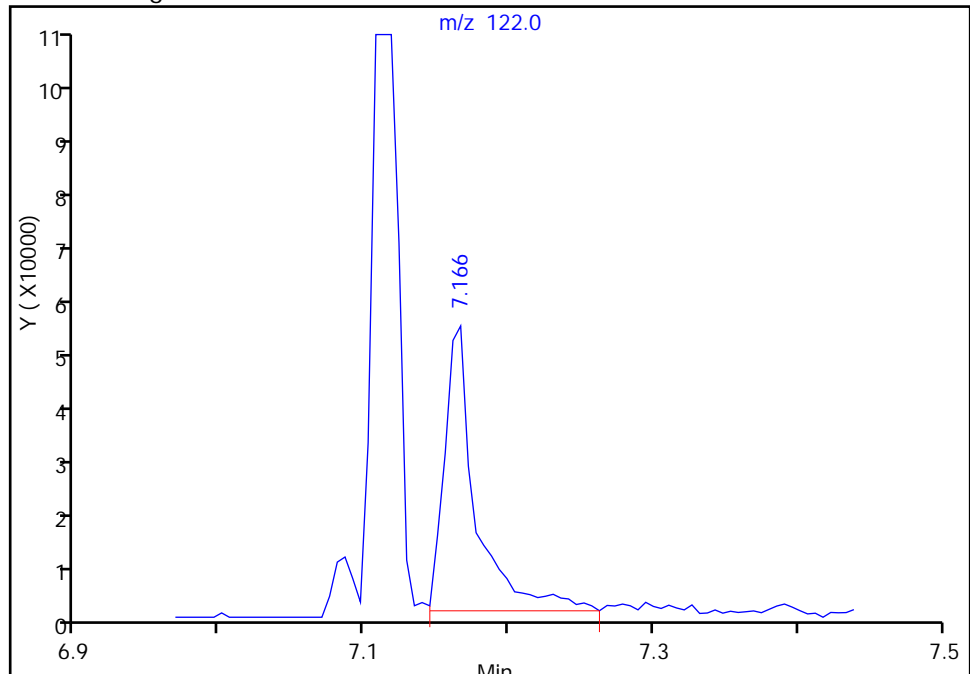
## 56 Benzoic acid, CAS: 65-85-0

RT: 7.17  
Response: 78097  
Amount: 9.039577

## Processing Integration Results

RT: 7.17  
Response: 78276  
Amount: 9.169178

## Manual Integration Results



Reviewer: piccolinov, 28-Aug-2014 07:04:05

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828007.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 28-Aug-2014 04:19:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-007  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:57 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 06:38:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.233	6.242	-0.009	94	205432	8.00	8.00	
* 2 Naphthalene-d8	136	7.435	7.444	-0.009	99	836484	8.00	8.00	
* 3 Acenaphthene-d10	164	9.048	9.057	-0.009	89	464844	8.00	8.00	
* 4 Phenanthrene-d10	188	10.410	10.419	-0.009	86	734670	8.00	8.00	
* 5 Chrysene-d12	240	13.865	13.875	-0.010	88	716589	8.00	8.00	
* 6 Perylene-d12	264	16.744	16.775	-0.031	97	519840	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.892	4.896	-0.004	91	603241	20.0	20.8	
\$ 8 Phenol-d5	99	5.880	5.885	-0.005	97	807656	20.0	21.0	
\$ 9 Nitrobenzene-d5	82	6.756	6.766	-0.010	88	754624	20.0	19.7	
\$ 10 2-Fluorobiphenyl	172	8.417	8.427	-0.010	98	1565152	20.0	19.6	
\$ 11 2,4,6-Tribromophenol	330	9.769	9.778	-0.009	91	177900	20.0	21.0	
\$ 12 Terphenyl-d14	244	12.140	12.155	-0.015	99	1514183	20.0	19.9	
13 1,4-Dioxane	88	1.763	1.751	0.012	88	203565	20.0	19.0	
14 N-Nitrosodimethylamine	74	2.414	2.408	0.006	82	287480	20.0	20.6	
15 Pyridine	79	2.473	2.477	-0.004	94	533060	20.0	20.0	
22 Methyl methanesulfonate	80	4.657	4.667	-0.010	88	379891	20.0	20.0	
26 Benzaldehyde	77	5.795	5.804	-0.009	92	490874	20.0	21.3	
27 Phenol	94	5.891	5.901	-0.010	99	894222	20.0	20.1	
28 Aniline	93	5.907	5.917	-0.010	78	1027613	20.0	20.5	
29 Bis(2-chloroethyl)ether	93	5.977	5.981	-0.004	97	593014	20.0	19.8	
31 2-Chlorophenol	128	6.030	6.034	-0.004	96	702081	20.0	20.4	
32 n-Decane	43	6.089	6.098	-0.009	87	612731	20.0	19.7	
33 1,3-Dichlorobenzene	146	6.180	6.189	-0.009	96	807563	20.0	20.2	
34 1,4-Dichlorobenzene	146	6.249	6.258	-0.009	92	815979	20.0	20.2	
36 Benzyl alcohol	108	6.361	6.371	-0.010	89	435145	20.0	21.2	
37 1,2-Dichlorobenzene	146	6.399	6.408	-0.009	89	780817	20.0	20.0	
38 2-Methylphenol	108	6.473	6.477	-0.004	96	634043	20.0	20.9	
39 Indene	116	6.484	6.488	-0.004	76	1122649	20.0	20.4	
40 2,2'-oxybis[1-chloropropan	45	6.495	6.504	-0.009	89	777359	20.0	19.6	
41 N-Nitrosopyrrolidine	100	6.585	6.595	-0.010	87	287492	20.0	21.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.612	6.622	-0.010	67	679157	20.0	21.3	
43 Acetophenone	105	6.612	6.622	-0.010	81	934143	20.0	20.8	
44 N-Nitrosodi-n-propylamine	70	6.612	6.622	-0.010	56	463809	20.0	20.9	
47 Hexachloroethane	117	6.724	6.734	-0.010	92	341449	20.0	20.2	
48 Nitrobenzene	77	6.772	6.782	-0.010	85	741234	20.0	19.8	
50 Isophorone	82	6.997	7.006	-0.009	97	1212830	20.0	19.8	
51 2-Nitrophenol	139	7.077	7.086	-0.009	98	362262	20.0	20.5	
52 2,4-Dimethylphenol	107	7.104	7.113	-0.009	59	709174	20.0	19.5	
56 Benzoic acid	122	7.168	7.166	0.002	84	231456	20.0	18.4	
55 Bis(2-chloroethoxy)methane	93	7.189	7.198	-0.009	95	736712	20.0	19.1	
57 2,4-Dichlorophenol	162	7.296	7.305	-0.009	96	591030	20.0	20.1	
59 1,2,4-Trichlorobenzene	180	7.381	7.391	-0.010	90	656233	20.0	19.1	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.456	7.466	-0.010	97	2082205	20.0	18.9	
62 4-Chloroaniline	127	7.493	7.503	-0.010	75	877412	20.0	19.9	
63 2,6-Dichlorophenol	162	7.510	7.519	-0.009	93	582120	20.0	20.0	
64 Hexachlorobutadiene	225	7.574	7.583	-0.009	73	386992	20.0	18.9	
67 Caprolactam	113	7.793	7.797	-0.004	71	161287	20.0	20.2	
70 4-Chloro-3-methylphenol	107	7.926	7.930	-0.004	95	599623	20.0	20.4	
72 2-Methylnaphthalene	142	8.092	8.101	-0.009	87	1412963	20.0	19.0	
75 1-Methylnaphthalene	142	8.182	8.192	-0.010	83	1315150	20.0	19.0	
76 Hexachlorocyclopentadiene	237	8.241	8.251	-0.010	95	478157	20.0	21.1	
77 1,2,4,5-Tetrachlorobenzene	216	8.247	8.256	-0.009	96	640588	20.0	19.2	
78 2,4,6-Trichlorophenol	196	8.343	8.352	-0.009	91	409817	20.0	21.0	
79 2,4,5-Trichlorophenol	196	8.375	8.384	-0.009	93	439613	20.0	20.7	
80 1,1'-Biphenyl	154	8.514	8.523	-0.009	94	1659305	20.0	19.5	
81 2-Chloronaphthalene	162	8.540	8.550	-0.010	71	1403730	20.0	19.5	
82 2-Nitroaniline	65	8.615	8.625	-0.010	81	373410	20.0	21.1	
86 Dimethyl phthalate	163	8.765	8.774	-0.009	97	1367374	20.0	19.9	
87 1,3-Dinitrobenzene	168	8.802	8.806	-0.004	64	217482	20.0	20.3	
88 2,6-Dinitrotoluene	165	8.829	8.833	-0.004	70	318157	20.0	20.7	
89 Acenaphthylene	152	8.920	8.934	-0.014	91	2010636	20.0	20.0	
90 3-Nitroaniline	138	8.984	8.993	-0.009	92	352181	20.0	21.1	
91 Acenaphthene	153	9.080	9.089	-0.009	89	1274903	20.0	19.5	
92 2,4-Dinitrophenol	184	9.080	9.089	-0.009	54	328106	40.0	35.9	
93 4-Nitrophenol	109	9.112	9.121	-0.009	76	447517	40.0	42.3	
94 2,4-Dinitrotoluene	165	9.197	9.207	-0.010	89	428465	20.0	21.0	
95 Dibenzofuran	168	9.235	9.244	-0.009	80	1879286	20.0	19.4	
97 2,3,5,6-Tetrachlorophenol	232	9.304	9.314	-0.010	92	377373	20.0	20.9	
99 2,3,4,6-Tetrachlorophenol	232	9.341	9.351	-0.010	71	373473	20.0	20.1	
100 2-Naphthylamine	143	9.368	9.378	-0.010	91	1314871	20.0	20.6	
101 Diethyl phthalate	149	9.400	9.410	-0.010	95	1371827	20.0	20.0	
102 Hexadecane	57	9.406	9.415	-0.009	97	823529	20.0	19.8	
104 4-Chlorophenyl phenyl ethe	204	9.528	9.538	-0.010	94	719389	20.0	19.5	
105 4-Nitroaniline	138	9.539	9.549	-0.010	86	344344	20.0	20.5	
106 Fluorene	166	9.550	9.559	-0.009	83	1473572	20.0	19.7	
108 4,6-Dinitro-2-methylphenol	198	9.571	9.581	-0.010	55	460987	40.0	38.3	
109 N-Nitrosodiphenylamine	169	9.630	9.639	-0.009	59	1086769	20.0	20.0	
111 1,2-Diphenylhydrazine	77	9.673	9.682	-0.009	1	1536573	20.0	20.4	
116 4-Bromophenyl phenyl ether	248	9.977	9.987	-0.010	63	409213	20.0	19.9	
118 Hexachlorobenzene	284	10.063	10.072	-0.009	87	436272	20.0	20.1	
119 Atrazine	200	10.095	10.104	-0.009	73	399957	20.0	21.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.228	10.238	-0.010	85	512353	40.0	38.4	
121 n-Octadecane	57	10.233	10.243	-0.010	97	847432	20.0	21.0	
126 Phenanthrene	178	10.431	10.441	-0.009	97	2084983	20.0	19.5	
128 Anthracene	178	10.479	10.489	-0.010	97	2172686	20.0	20.2	
130 Carbazole	167	10.618	10.627	-0.009	82	1926363	20.0	20.2	
132 Di-n-butyl phthalate	149	10.906	10.916	-0.010	100	2222741	20.0	20.9	
137 Fluoranthene	202	11.697	11.712	-0.015	97	2202771	20.0	20.1	
138 Benzidine	184	11.820	11.835	-0.015	98	981660	20.0	20.8	
139 Pyrene	202	11.991	12.005	-0.014	98	2236598	20.0	19.5	
144 Butyl benzyl phthalate	149	12.824	12.839	-0.015	97	874940	20.0	20.7	
149 3,3'-Dichlorobenzidine	252	13.764	13.779	-0.015	68	647056	20.0	20.6	
151 Bis(2-ethylhexyl) phthalat	149	13.807	13.821	-0.014	95	1156423	20.0	20.4	
152 Benzo[a]anthracene	228	13.839	13.859	-0.020	97	1868438	20.0	19.2	
153 Chrysene	228	13.908	13.928	-0.020	94	1809881	20.0	19.3	
156 Di-n-octyl phthalate	149	15.094	15.109	-0.015	99	1790096	20.0	21.3	
157 7,12-Dimethylbenz(a)anthra	256	15.943	15.963	-0.020	75	790621	20.0	20.7	
158 Benzo[b]fluoranthene	252	15.959	15.979	-0.020	92	1834629	20.0	20.1	
159 Benzo[k]fluoranthene	252	16.012	16.033	-0.021	98	1744542	20.0	20.8	
176 Benzo[e]pyrene	252	16.531	16.551	-0.020	0	1637545	20.0	20.2	
160 Benzo[a]pyrene	252	16.632	16.658	-0.026	74	1575087	20.0	20.1	
163 Indeno[1,2,3-cd]pyrene	276	18.939	18.960	-0.021	97	1637839	20.0	20.1	
164 Dibenz(a,h)anthracene	278	18.971	18.992	-0.021	63	1422364	20.0	20.3	
165 Benzo[g,h,i]perylene	276	19.511	19.542	-0.031	94	1356889	20.0	20.0	
S 208 Methyl Phenols, Total	108				0		40.0	42.3	
S 206 Total Cresols	108				0		40.0	42.3	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPSTD20i\_00005

Amount Added: 1.00

Units: mL

Report Date: 28-Aug-2014 12:51:58

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828007.D

Injection Date: 28-Aug-2014 04:19:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 7

Client ID:

Injection Vol: 2.0 ul

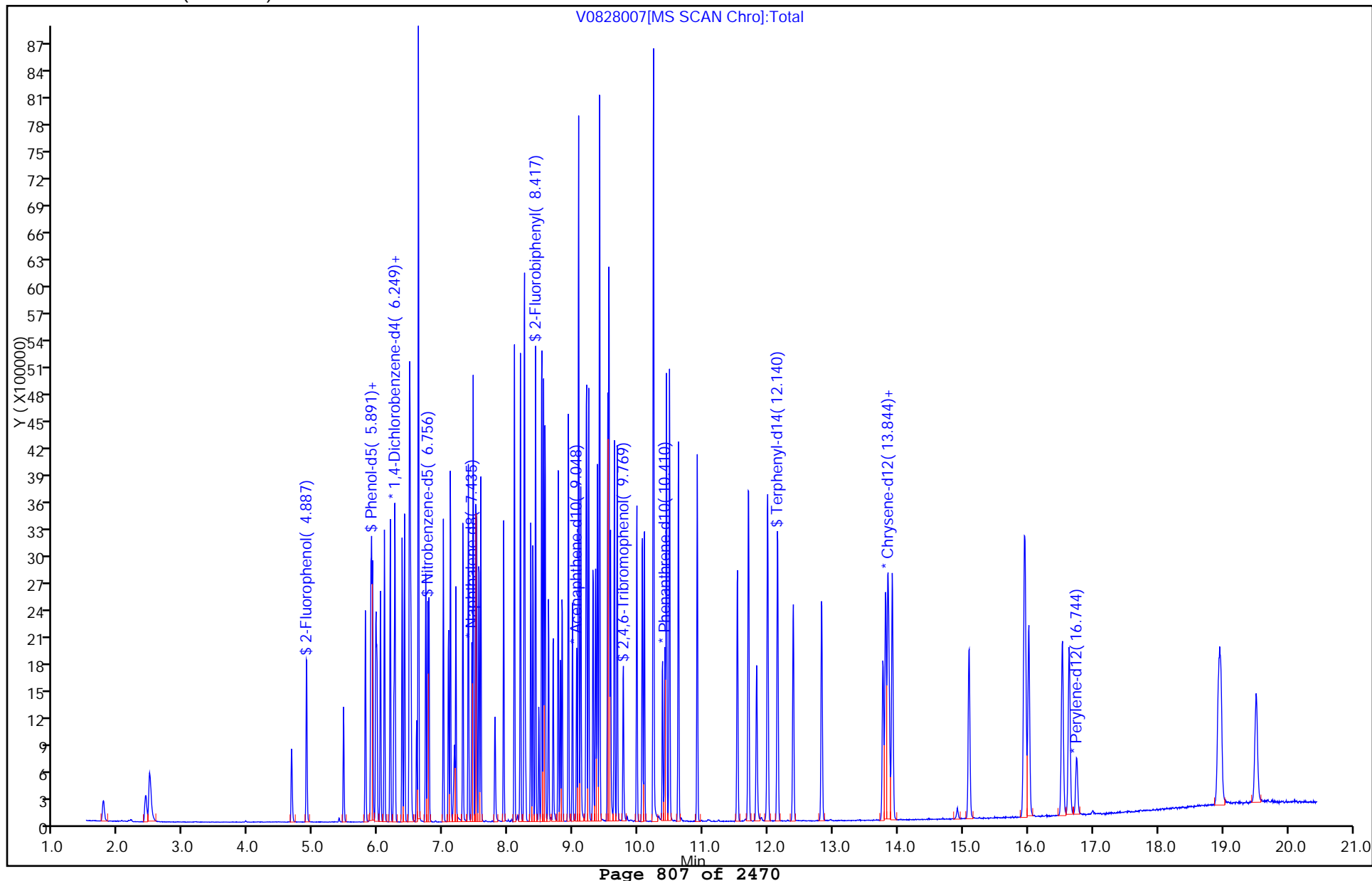
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828008.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 28-Aug-2014 04:48:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-008  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:51:59 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 06:36:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.238	6.242	-0.004	95	193732	8.00	8.00	
* 2 Naphthalene-d8	136	7.439	7.444	-0.005	100	751530	8.00	8.00	
* 3 Acenaphthene-d10	164	9.052	9.057	-0.005	91	431954	8.00	8.00	
* 4 Phenanthrene-d10	188	10.414	10.419	-0.005	97	693656	8.00	8.00	
* 5 Chrysene-d12	240	13.870	13.875	-0.005	97	697317	8.00	8.00	
* 6 Perylene-d12	264	16.760	16.775	-0.015	98	531303	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.892	4.896	-0.004	92	1111719	40.0	40.6	
\$ 8 Phenol-d5	99	5.880	5.885	-0.005	98	1476770	40.0	40.7	
\$ 9 Nitrobenzene-d5	82	6.761	6.766	-0.005	89	1371129	40.0	39.9	
\$ 10 2-Fluorobiphenyl	172	8.417	8.427	-0.010	100	2882592	40.0	38.8	
\$ 11 2,4,6-Tribromophenol	330	9.773	9.778	-0.005	94	367590	40.0	46.0	
\$ 12 Terphenyl-d14	244	12.150	12.155	-0.005	99	2944594	40.0	39.8	
13 1,4-Dioxane	88	1.746	1.751	-0.005	90	373734	40.0	37.0	
14 N-Nitrosodimethylamine	74	2.392	2.408	-0.016	90	512125	40.0	39.0	
15 Pyridine	79	2.456	2.477	-0.021	98	1006070	40.0	40.1	
22 Methyl methanesulfonate	80	4.657	4.667	-0.010	88	674253	40.0	37.7	
26 Benzaldehyde	77	5.800	5.804	-0.004	96	858437	40.0	39.5	
27 Phenol	94	5.896	5.901	-0.005	97	1604756	40.0	38.2	
28 Aniline	93	5.912	5.917	-0.005	96	1838998	40.0	38.9	
29 Bis(2-chloroethyl)ether	93	5.976	5.981	-0.005	97	1086088	40.0	38.4	
31 2-Chlorophenol	128	6.029	6.034	-0.005	96	1314471	40.0	40.6	
32 n-Decane	43	6.088	6.098	-0.010	88	1133939	40.0	38.6	
33 1,3-Dichlorobenzene	146	6.179	6.189	-0.010	97	1442785	40.0	38.3	
34 1,4-Dichlorobenzene	146	6.254	6.258	-0.004	93	1482523	40.0	38.9	
36 Benzyl alcohol	108	6.366	6.371	-0.005	91	794532	40.0	41.1	
37 1,2-Dichlorobenzene	146	6.398	6.408	-0.010	96	1393428	40.0	37.9	
38 2-Methylphenol	108	6.478	6.477	0.001	95	1161412	40.0	40.7	
39 Indene	116	6.483	6.488	-0.005	91	2071673	40.0	39.9	
40 2,2'-oxybis[1-chloropropan	45	6.499	6.504	-0.005	92	1422098	40.0	38.0	
41 N-Nitrosopyrrolidine	100	6.590	6.595	-0.005	88	525407	40.0	42.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.617	6.622	-0.005	70	1198718	40.0	39.9	
43 Acetophenone	105	6.617	6.622	-0.005	82	1620750	40.0	38.2	
44 N-Nitrosodi-n-propylamine	70	6.617	6.622	-0.005	69	818328	40.0	39.2	
47 Hexachloroethane	117	6.729	6.734	-0.005	97	635104	40.0	39.8	
48 Nitrobenzene	77	6.777	6.782	-0.005	88	1327433	40.0	39.6	
50 Isophorone	82	7.001	7.006	-0.005	99	2271896	40.0	41.4	
51 2-Nitrophenol	139	7.076	7.086	-0.010	98	682745	40.0	43.1	
52 2,4-Dimethylphenol	107	7.108	7.113	-0.005	97	1284322	40.0	39.4	
56 Benzoic acid	122	7.188	7.166	0.022	89	578558	40.0	41.3	
55 Bis(2-chloroethoxy)methane	93	7.194	7.198	-0.004	99	1342749	40.0	38.8	
57 2,4-Dichlorophenol	162	7.300	7.305	-0.005	95	1102436	40.0	41.7	
59 1,2,4-Trichlorobenzene	180	7.386	7.391	-0.005	94	1209318	40.0	39.2	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.461	7.466	-0.005	97	3899304	40.0	39.4	
62 4-Chloroaniline	127	7.498	7.503	-0.005	96	1620150	40.0	41.0	
63 2,6-Dichlorophenol	162	7.514	7.519	-0.005	98	1078355	40.0	41.1	
64 Hexachlorobutadiene	225	7.578	7.583	-0.005	97	728575	40.0	39.7	
67 Caprolactam	113	7.803	7.797	0.006	81	327707	40.0	45.7	
70 4-Chloro-3-methylphenol	107	7.931	7.930	0.001	96	1104832	40.0	41.7	
72 2-Methylnaphthalene	142	8.091	8.101	-0.010	93	2636984	40.0	39.5	
75 1-Methylnaphthalene	142	8.187	8.192	-0.005	93	2456136	40.0	39.4	
76 Hexachlorocyclopentadiene	237	8.246	8.251	-0.005	96	903196	40.0	42.9	
77 1,2,4,5-Tetrachlorobenzene	216	8.251	8.256	-0.005	99	1192591	40.0	38.4	
78 2,4,6-Trichlorophenol	196	8.347	8.352	-0.005	93	777751	40.0	42.9	
79 2,4,5-Trichlorophenol	196	8.379	8.384	-0.005	94	818641	40.0	41.6	
80 1,1'-Biphenyl	154	8.513	8.523	-0.010	94	3115515	40.0	39.4	
81 2-Chloronaphthalene	162	8.545	8.550	-0.005	97	2643209	40.0	39.5	
82 2-Nitroaniline	65	8.620	8.625	-0.005	83	703394	40.0	42.9	
86 Dimethyl phthalate	163	8.769	8.774	-0.005	98	2555199	40.0	39.9	
87 1,3-Dinitrobenzene	168	8.801	8.806	-0.005	86	426705	40.0	42.9	
88 2,6-Dinitrotoluene	165	8.828	8.833	-0.005	94	589272	40.0	41.3	
89 Acenaphthylene	152	8.924	8.934	-0.010	98	3786586	40.0	40.5	
90 3-Nitroaniline	138	8.988	8.993	-0.005	93	659688	40.0	42.6	
91 Acenaphthene	153	9.084	9.089	-0.005	88	2351957	40.0	38.8	
92 2,4-Dinitrophenol	184	9.084	9.089	-0.005	68	719145	80.0	78.9	
93 4-Nitrophenol	109	9.122	9.121	0.001	93	854087	80.0	86.9	
94 2,4-Dinitrotoluene	165	9.202	9.207	-0.005	92	805447	40.0	42.5	
95 Dibenzofuran	168	9.239	9.244	-0.005	96	3547198	40.0	39.4	
97 2,3,5,6-Tetrachlorophenol	232	9.303	9.314	-0.011	93	724164	40.0	43.1	
99 2,3,4,6-Tetrachlorophenol	232	9.346	9.351	-0.005	73	734662	40.0	42.6	
100 2-Naphthylamine	143	9.373	9.378	-0.005	97	2438829	40.0	41.0	
101 Diethyl phthalate	149	9.405	9.410	-0.005	98	2570433	40.0	40.3	
102 Hexadecane	57	9.405	9.415	-0.010	97	1528473	40.0	40.8	
104 4-Chlorophenyl phenyl ethe	204	9.533	9.538	-0.005	92	1377620	40.0	40.2	
105 4-Nitroaniline	138	9.549	9.549	0.000	81	669423	40.0	43.0	
106 Fluorene	166	9.549	9.559	-0.010	96	2803148	40.0	40.3	
108 4,6-Dinitro-2-methylphenol	198	9.576	9.581	-0.005	87	966488	80.0	82.1	
109 N-Nitrosodiphenylamine	169	9.635	9.639	-0.004	62	2066724	40.0	40.4	
111 1,2-Diphenylhydrazine	77	9.677	9.682	-0.005	41	2839596	40.0	39.9	
116 4-Bromophenyl phenyl ether	248	9.982	9.987	-0.005	67	779963	40.0	40.3	
118 Hexachlorobenzene	284	10.062	10.072	-0.010	94	838063	40.0	40.8	
119 Atrazine	200	10.099	10.104	-0.005	94	773986	40.0	43.5	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.233	10.238	-0.005	90	1037720	80.0	81.4	
121 n-Octadecane	57	10.238	10.243	-0.005	97	1576557	40.0	41.4	
126 Phenanthrene	178	10.436	10.441	-0.004	97	3962414	40.0	39.3	
128 Anthracene	178	10.484	10.489	-0.005	97	4172950	40.0	41.1	
130 Carbazole	167	10.617	10.627	-0.010	96	3737729	40.0	41.5	
132 Di-n-butyl phthalate	149	10.911	10.916	-0.005	100	4335645	40.0	43.2	
137 Fluoranthene	202	11.702	11.712	-0.010	97	4244174	40.0	41.0	
138 Benzidine	184	11.824	11.835	-0.011	99	2038822	40.0	44.4	
139 Pyrene	202	11.995	12.005	-0.010	98	4358380	40.0	39.1	
144 Butyl benzyl phthalate	149	12.829	12.839	-0.011	99	1754500	40.0	42.7	
149 3,3'-Dichlorobenzidine	252	13.769	13.779	-0.010	74	1366556	40.0	44.7	
151 Bis(2-ethylhexyl) phthalat	149	13.811	13.821	-0.010	95	2381717	40.0	43.3	
152 Benzo[a]anthracene	228	13.849	13.859	-0.010	97	3727880	40.0	39.4	
153 Chrysene	228	13.918	13.928	-0.010	97	3636812	40.0	39.9	
156 Di-n-octyl phthalate	149	15.098	15.109	-0.011	99	3797592	40.0	44.2	
157 7,12-Dimethylbenz(a)anthra	256	15.953	15.963	-0.010	93	1632509	40.0	41.9	
158 Benzo[b]fluoranthene	252	15.969	15.979	-0.010	97	3689596	40.0	39.6	
159 Benzo[k]fluoranthene	252	16.022	16.033	-0.011	99	3638831	40.0	42.5	
176 Benzo[e]pyrene	252	16.535	16.551	-0.016	0	3359974	40.0	40.6	
160 Benzo[a]pyrene	252	16.642	16.658	-0.016	76	3375204	40.0	42.1	
163 Indeno[1,2,3-cd]pyrene	276	18.949	18.960	-0.011	99	3504902	40.0	42.1	
164 Dibenz(a,h)anthracene	278	18.981	18.992	-0.011	91	3009522	40.0	42.1	
165 Benzo[g,h,i]perylene	276	19.532	19.542	-0.010	99	2960623	40.0	42.7	
S 208 Methyl Phenols, Total	108				0		80.0	80.6	
S 206 Total Cresols	108				0		80.0	80.6	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPSTD40i\_00005

Amount Added: 1.00

Units: mL



Report Date: 28-Aug-2014 12:51:59

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828008.D

Injection Date: 28-Aug-2014 04:48:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 8

Client ID:

Injection Vol: 2.0 ul

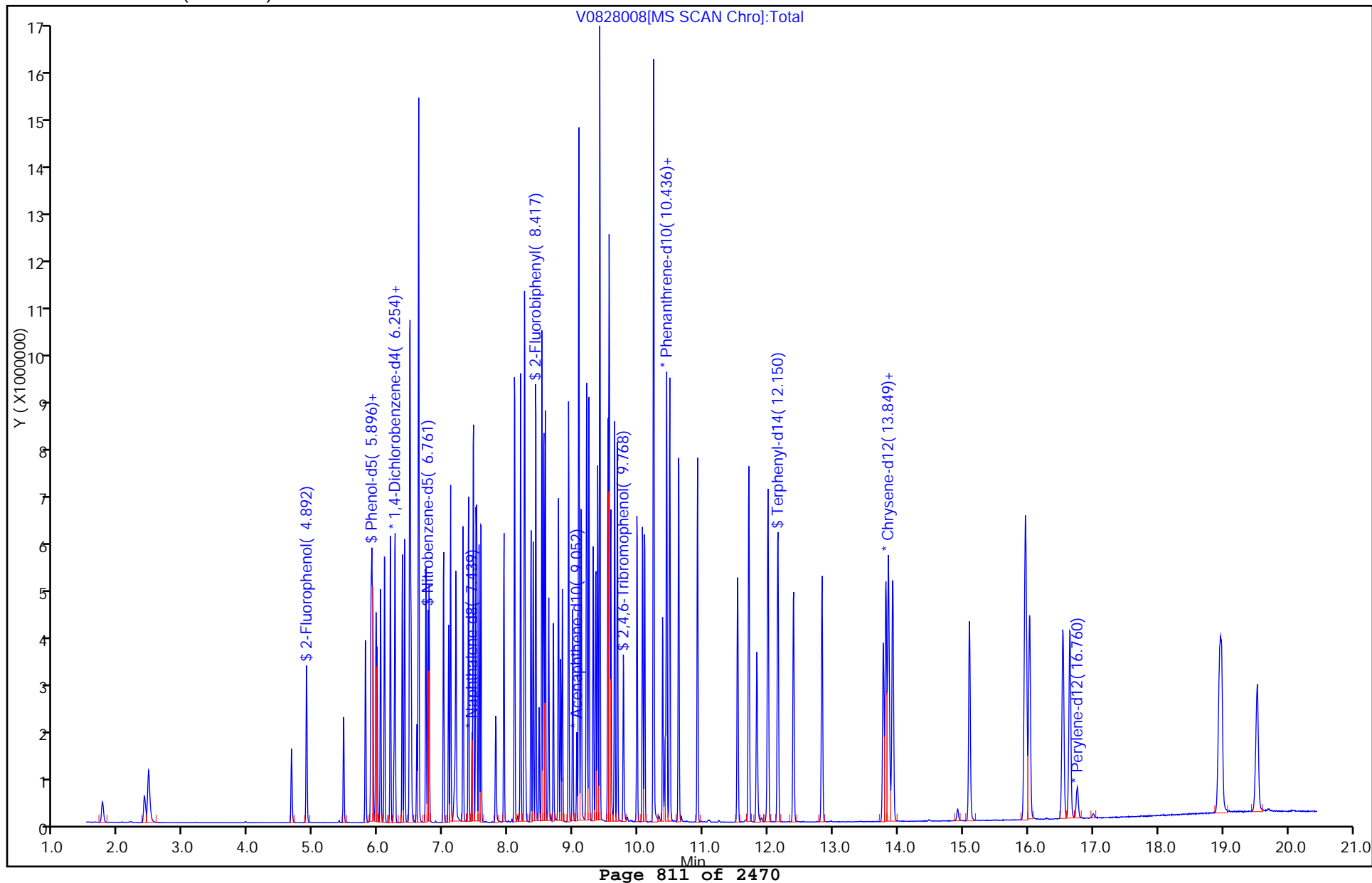
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828009.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 28-Aug-2014 05:18:30 ALS Bottle#: 8 Worklist Smp#: 9  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-009  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:52:02 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 07:06:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.234	6.242	-0.008	93	192307	8.00	8.00	
* 2 Naphthalene-d8	136	7.435	7.444	-0.009	100	743466	8.00	8.00	
* 3 Acenaphthene-d10	164	9.048	9.057	-0.009	90	430910	8.00	8.00	
* 4 Phenanthrene-d10	188	10.410	10.419	-0.009	60	692102	8.00	8.00	
* 5 Chrysene-d12	240	13.866	13.875	-0.009	65	678955	8.00	8.00	
* 6 Perylene-d12	264	16.756	16.775	-0.019	97	556091	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.888	4.896	-0.008	91	1652462	60.0	60.8	
\$ 8 Phenol-d5	99	5.881	5.885	-0.004	95	2175617	60.0	60.4	
\$ 9 Nitrobenzene-d5	82	6.757	6.766	-0.009	89	2020343	60.0	59.4	
\$ 10 2-Fluorobiphenyl	172	8.418	8.427	-0.009	92	4345603	60.0	58.6	
\$ 11 2,4,6-Tribromophenol	330	9.769	9.778	-0.009	93	556446	60.0	69.7	
\$ 12 Terphenyl-d14	244	12.141	12.155	-0.014	98	4361149	60.0	60.5	
13 1,4-Dioxane	88	1.747	1.751	-0.004	89	548839	60.0	54.8	
14 N-Nitrosodimethylamine	74	2.393	2.408	-0.015	86	773340	60.0	59.3	
15 Pyridine	79	2.452	2.477	-0.025	94	1457080	60.0	58.5	
22 Methyl methanesulfonate	80	4.658	4.667	-0.009	88	1003641	60.0	56.6	
26 Benzaldehyde	77	5.796	5.804	-0.008	92	1165913	60.0	54.1	
27 Phenol	94	5.897	5.901	-0.004	96	2354420	60.0	56.5	
28 Aniline	93	5.908	5.917	-0.009	79	2722932	60.0	58.0	
29 Bis(2-chloroethyl)ether	93	5.977	5.981	-0.004	96	1613829	60.0	57.5	
31 2-Chlorophenol	128	6.031	6.034	-0.003	96	1906881	60.0	59.3	
32 n-Decane	43	6.089	6.098	-0.009	88	1659646	60.0	56.9	
33 1,3-Dichlorobenzene	146	6.180	6.189	-0.009	96	2170937	60.0	58.0	
34 1,4-Dichlorobenzene	146	6.250	6.258	-0.008	94	2231328	60.0	59.0	
36 Benzyl alcohol	108	6.362	6.371	-0.009	88	1199431	60.0	62.5	
37 1,2-Dichlorobenzene	146	6.399	6.408	-0.009	89	2068944	60.0	56.6	
38 2-Methylphenol	108	6.479	6.477	0.002	74	1684204	60.0	59.4	
39 Indene	116	6.485	6.488	-0.003	75	3018385	60.0	58.6	
40 2,2'-oxybis[1-chloropropan	45	6.495	6.504	-0.009	89	2059192	60.0	55.5	
41 N-Nitrosopyrrolidine	100	6.591	6.595	-0.004	87	786966	60.0	63.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.613	6.622	-0.009	72	1750097	60.0	58.7	
43 Acetophenone	105	6.613	6.622	-0.009	80	2340818	60.0	55.6	
44 N-Nitrosodi-n-propylamine	70	6.618	6.622	-0.004	62	1176882	60.0	56.8	
47 Hexachloroethane	117	6.725	6.734	-0.009	93	927080	60.0	58.5	
48 Nitrobenzene	77	6.778	6.782	-0.004	84	1954700	60.0	58.9	
50 Isophorone	82	6.997	7.006	-0.009	97	3328343	60.0	61.3	
51 2-Nitrophenol	139	7.078	7.086	-0.008	96	1030998	60.0	65.8	
52 2,4-Dimethylphenol	107	7.104	7.113	-0.009	53	1934082	60.0	59.9	
56 Benzoic acid	122	7.195	7.166	0.029	42	904528	60.0	59.8	
55 Bis(2-chloroethoxy)methane	93	7.190	7.198	-0.008	99	2023895	60.0	59.1	
57 2,4-Dichlorophenol	162	7.302	7.305	-0.003	93	1647575	60.0	63.1	
59 1,2,4-Trichlorobenzene	180	7.382	7.391	-0.009	90	1783889	60.0	58.5	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.457	7.466	-0.009	97	5792650	60.0	59.1	
62 4-Chloroaniline	127	7.494	7.503	-0.009	73	2369381	60.0	60.6	
63 2,6-Dichlorophenol	162	7.510	7.519	-0.009	97	1592114	60.0	61.4	
64 Hexachlorobutadiene	225	7.574	7.583	-0.009	55	1078172	60.0	59.4	
67 Caprolactam	113	7.809	7.797	0.012	80	474868	60.0	66.9	
70 4-Chloro-3-methylphenol	107	7.927	7.930	-0.003	93	1629635	60.0	62.2	
72 2-Methylnaphthalene	142	8.092	8.101	-0.009	88	3890720	60.0	59.0	
75 1-Methylnaphthalene	142	8.183	8.192	-0.009	83	3609682	60.0	58.6	
76 Hexachlorocyclopentadiene	237	8.242	8.251	-0.009	87	1348525	60.0	64.2	
77 1,2,4,5-Tetrachlorobenzene	216	8.247	8.256	-0.009	96	1734076	60.0	56.0	
78 2,4,6-Trichlorophenol	196	8.343	8.352	-0.009	93	1175689	60.0	65.0	
79 2,4,5-Trichlorophenol	196	8.381	8.384	-0.003	94	1254245	60.0	63.8	
80 1,1'-Biphenyl	154	8.514	8.523	-0.009	94	4641240	60.0	58.8	
81 2-Chloronaphthalene	162	8.541	8.550	-0.009	71	3745640	60.0	56.0	
82 2-Nitroaniline	65	8.616	8.625	-0.009	81	1022120	60.0	62.4	
86 Dimethyl phthalate	163	8.771	8.774	-0.003	99	3840250	60.0	60.2	
87 1,3-Dinitrobenzene	168	8.803	8.806	-0.003	60	638540	60.0	64.4	
88 2,6-Dinitrotoluene	165	8.829	8.833	-0.004	66	897231	60.0	63.1	
89 Acenaphthylene	152	8.926	8.934	-0.008	91	5707600	60.0	61.2	
90 3-Nitroaniline	138	8.990	8.993	-0.003	93	984416	60.0	63.8	
91 Acenaphthene	153	9.080	9.089	-0.009	87	3440868	60.0	56.9	
92 2,4-Dinitrophenol	184	9.080	9.089	-0.009	65	1123668	120.0	121.1	
93 4-Nitrophenol	109	9.118	9.121	-0.003	38	1233807	120.0	125.8	
94 2,4-Dinitrotoluene	165	9.198	9.207	-0.009	90	1201529	60.0	63.6	
95 Dibenzofuran	168	9.235	9.244	-0.009	82	5268641	60.0	58.6	
97 2,3,5,6-Tetrachlorophenol	232	9.305	9.314	-0.009	87	1102751	60.0	65.8	
99 2,3,4,6-Tetrachlorophenol	232	9.342	9.351	-0.009	72	1080606	60.0	62.8	
100 2-Naphthylamine	143	9.374	9.378	-0.004	88	3641357	60.0	61.4	
101 Diethyl phthalate	149	9.406	9.410	-0.004	91	3769741	60.0	59.2	
102 Hexadecane	57	9.406	9.415	-0.009	78	2172944	60.0	58.6	
104 4-Chlorophenyl phenyl ethe	204	9.529	9.538	-0.009	93	2038296	60.0	59.6	
105 4-Nitroaniline	138	9.545	9.549	-0.004	62	976558	60.0	62.9	
106 Fluorene	166	9.550	9.559	-0.009	77	4086040	60.0	58.9	
108 4,6-Dinitro-2-methylphenol	198	9.577	9.581	-0.004	60	1502220	120.0	126.5	
109 N-Nitrosodiphenylamine	169	9.636	9.639	-0.003	58	3136471	60.0	61.4	
111 1,2-Diphenylhydrazine	77	9.673	9.682	-0.009	9	4184473	60.0	58.9	
116 4-Bromophenyl phenyl ether	248	9.978	9.987	-0.009	62	1172157	60.0	60.6	
118 Hexachlorobenzene	284	10.063	10.072	-0.009	93	1255963	60.0	61.3	
119 Atrazine	200	10.095	10.104	-0.009	74	1132132	60.0	63.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.229	10.238	-0.009	88	1572574	120.0	123.1	
121 n-Octadecane	57	10.234	10.243	-0.009	97	2221156	60.0	58.7	
126 Phenanthrene	178	10.432	10.441	-0.008	97	5897481	60.0	58.6	
128 Anthracene	178	10.480	10.489	-0.009	97	6199750	60.0	61.1	
130 Carbazole	167	10.619	10.627	-0.008	82	5606611	60.0	62.4	
132 Di-n-butyl phthalate	149	10.907	10.916	-0.009	100	6455773	60.0	64.5	
137 Fluoranthene	202	11.698	11.712	-0.014	97	6267942	60.0	60.7	
138 Benzidine	184	11.820	11.835	-0.015	99	2976833	60.0	66.5	
139 Pyrene	202	11.991	12.005	-0.014	98	6502974	60.0	59.9	
144 Butyl benzyl phthalate	149	12.825	12.839	-0.014	98	2621288	60.0	65.6	
149 3,3'-Dichlorobenzidine	252	13.770	13.779	-0.009	70	2046921	60.0	68.7	
151 Bis(2-ethylhexyl) phthalat	149	13.807	13.821	-0.014	95	3597471	60.0	67.1	
152 Benzo[a]anthracene	228	13.845	13.859	-0.014	93	5579802	60.0	60.6	
153 Chrysene	228	13.914	13.928	-0.014	94	5440558	60.0	61.2	
156 Di-n-octyl phthalate	149	15.094	15.109	-0.015	99	5909570	60.0	65.7	
157 7,12-Dimethylbenz(a)anthra	256	15.954	15.963	-0.009	68	2540184	60.0	62.2	
158 Benzo[b]fluoranthene	252	15.965	15.979	-0.014	93	5804561	60.0	59.5	
159 Benzo[k]fluoranthene	252	16.024	16.033	-0.009	94	5426676	60.0	60.5	
176 Benzo[e]pyrene	252	16.537	16.551	-0.014	0	5199922	60.0	60.1	
160 Benzo[a]pyrene	252	16.643	16.658	-0.015	71	5216968	60.0	62.2	
163 Indeno[1,2,3-cd]pyrene	276	18.945	18.960	-0.015	98	5581345	60.0	64.1	
164 Dibenz(a,h)anthracene	278	18.977	18.992	-0.015	68	4796195	60.0	64.1	
165 Benzo[g,h,i]perylene	276	19.528	19.542	-0.014	97	4687776	60.0	64.6	
S 208 Methyl Phenols, Total	108				0		120.0	118.1	
S 206 Total Cresols	108				0		120.0	118.1	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPSTD60i\_00005

Amount Added: 1.00

Units: mL

Report Date: 28-Aug-2014 12:52:03

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828009.D

Injection Date: 28-Aug-2014 05:18:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 9

Client ID:

Injection Vol: 2.0 ul

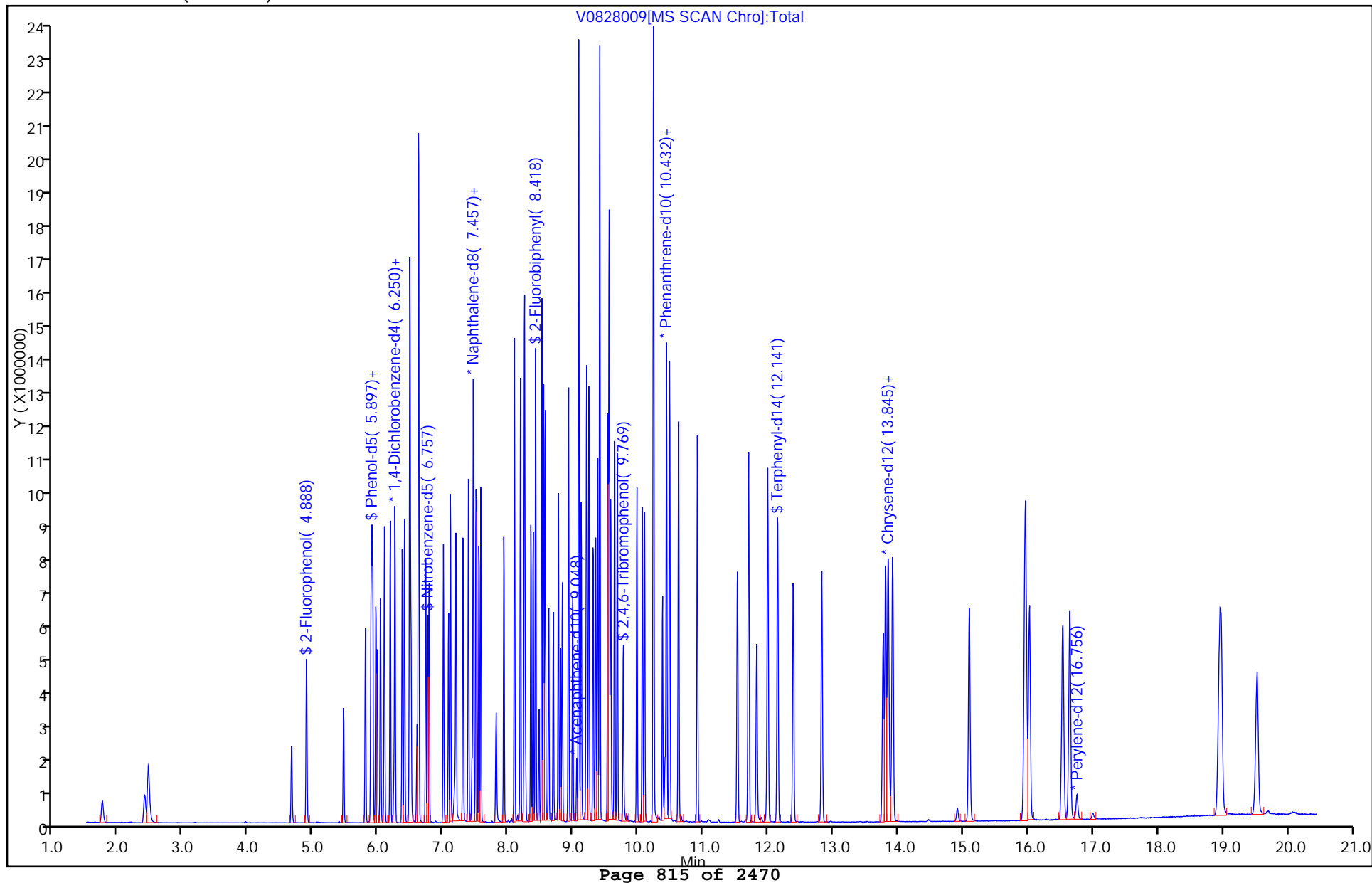
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828010.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 28-Aug-2014 05:47:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-010  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:52:04 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 07:25:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.237	6.242	-0.005	92	183728	8.00	8.00	
* 2 Naphthalene-d8	136	7.438	7.444	-0.006	100	713034	8.00	8.00	
* 3 Acenaphthene-d10	164	9.051	9.057	-0.006	90	407878	8.00	8.00	
* 4 Phenanthrene-d10	188	10.413	10.419	-0.006	70	669057	8.00	8.00	
* 5 Chrysene-d12	240	13.874	13.875	-0.001	41	670579	8.00	8.00	
* 6 Perylene-d12	264	16.758	16.775	-0.017	97	560266	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.891	4.896	-0.005	91	2097202	80.0	80.8	
\$ 8 Phenol-d5	99	5.884	5.885	-0.001	97	2737903	80.0	79.6	
\$ 9 Nitrobenzene-d5	82	6.760	6.766	-0.006	88	2567003	80.0	78.7	
\$ 10 2-Fluorobiphenyl	172	8.421	8.427	-0.006	92	5515089	80.0	78.5	
\$ 11 2,4,6-Tribromophenol	330	9.772	9.778	-0.006	93	719370	80.0	93.3	
\$ 12 Terphenyl-d14	244	12.149	12.155	-0.006	99	5681782	80.0	79.9	
13 1,4-Dioxane	88	1.739	1.751	-0.012	90	710105	80.0	74.2	
14 N-Nitrosodimethylamine	74	2.402	2.408	-0.006	88	985226	80.0	79.0	
15 Pyridine	79	2.455	2.477	-0.022	94	1846178	80.0	77.6	
22 Methyl methanesulfonate	80	4.661	4.667	-0.006	88	1254594	80.0	74.0	
26 Benzaldehyde	77	5.799	5.804	-0.005	92	1344857	80.0	65.3	
27 Phenol	94	5.900	5.901	-0.001	96	2931715	80.0	73.6	
28 Aniline	93	5.911	5.917	-0.006	95	3383773	80.0	75.4	
29 Bis(2-chloroethyl)ether	93	5.980	5.981	-0.001	95	2018460	80.0	75.3	
31 2-Chlorophenol	128	6.034	6.034	0.000	96	2399204	80.0	78.1	
32 n-Decane	43	6.092	6.098	-0.006	88	2121559	80.0	76.1	
33 1,3-Dichlorobenzene	146	6.183	6.189	-0.006	97	2762532	80.0	77.3	
34 1,4-Dichlorobenzene	146	6.253	6.258	-0.005	93	2792683	80.0	77.3	
36 Benzyl alcohol	108	6.370	6.371	-0.001	90	1505580	80.0	82.1	
37 1,2-Dichlorobenzene	146	6.402	6.408	-0.006	89	2620242	80.0	75.1	
38 2-Methylphenol	108	6.482	6.477	0.005	74	2106832	80.0	77.8	
39 Indene	116	6.488	6.488	0.000	83	3792720	80.0	77.0	
40 2,2'-oxybis[1-chloropropan	45	6.498	6.504	-0.006	90	2576978	80.0	72.7	
41 N-Nitrosopyrrolidine	100	6.594	6.595	-0.001	86	991809	80.0	83.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
45 4-Methylphenol	108	6.621	6.622	-0.001	72	2161567	80.0	75.8	
43 Acetophenone	105	6.621	6.622	-0.001	82	2924365	80.0	72.8	
44 N-Nitrosodi-n-propylamine	70	6.621	6.622	-0.001	63	1437012	80.0	72.6	
47 Hexachloroethane	117	6.728	6.734	-0.006	92	1184566	80.0	78.3	
48 Nitrobenzene	77	6.781	6.782	-0.001	84	2462784	80.0	77.3	
50 Isophorone	82	7.000	7.006	-0.006	97	4174346	80.0	80.1	
51 2-Nitrophenol	139	7.080	7.086	-0.006	96	1326543	80.0	88.3	
52 2,4-Dimethylphenol	107	7.112	7.113	-0.001	53	2371719	80.0	76.6	
56 Benzoic acid	122	7.209	7.166	0.043	86	1252298	80.0	79.9	
55 Bis(2-chloroethoxy)methane	93	7.193	7.198	-0.005	98	2526902	80.0	76.9	
57 2,4-Dichlorophenol	162	7.305	7.305	0.000	93	2059785	80.0	82.2	
59 1,2,4-Trichlorobenzene	180	7.385	7.391	-0.006	91	2278449	80.0	77.9	
61 Azobenzene	77		7.417					ND	
60 Naphthalene	128	7.460	7.466	-0.006	97	7389670	80.0	78.7	
62 4-Chloroaniline	127	7.502	7.503	-0.001	85	3082112	80.0	82.1	
63 2,6-Dichlorophenol	162	7.513	7.519	-0.006	97	2030550	80.0	81.7	
64 Hexachlorobutadiene	225	7.577	7.583	-0.006	75	1356920	80.0	77.9	
67 Caprolactam	113	7.817	7.797	0.020	80	631393	80.0	92.8	
70 4-Chloro-3-methylphenol	107	7.935	7.930	0.005	96	2061001	80.0	82.1	
72 2-Methylnaphthalene	142	8.095	8.101	-0.006	88	4999995	80.0	79.0	
75 1-Methylnaphthalene	142	8.186	8.192	-0.006	83	4639272	80.0	78.5	
76 Hexachlorocyclopentadiene	237	8.245	8.251	-0.006	86	1702433	80.0	85.6	
77 1,2,4,5-Tetrachlorobenzene	216	8.255	8.256	-0.001	96	2163403	80.0	73.8	
78 2,4,6-Trichlorophenol	196	8.346	8.352	-0.006	92	1525460	80.0	89.1	
79 2,4,5-Trichlorophenol	196	8.384	8.384	0.000	94	1594164	80.0	85.7	
80 1,1'-Biphenyl	154	8.517	8.523	-0.006	94	5938735	80.0	79.5	
81 2-Chloronaphthalene	162	8.544	8.550	-0.006	71	5308582	80.0	83.9	
82 2-Nitroaniline	65	8.624	8.625	-0.001	85	1320280	80.0	85.2	
86 Dimethyl phthalate	163	8.774	8.774	0.000	99	4912973	80.0	81.3	
87 1,3-Dinitrobenzene	168	8.806	8.806	0.000	58	829008	80.0	88.3	
88 2,6-Dinitrotoluene	165	8.832	8.833	-0.001	66	1177849	80.0	87.5	
89 Acenaphthylene	152	8.928	8.934	-0.006	92	7485111	80.0	84.7	
90 3-Nitroaniline	138	8.993	8.993	-0.001	94	1283714	80.0	87.9	
91 Acenaphthene	153	9.083	9.089	-0.006	87	4417355	80.0	77.2	
92 2,4-Dinitrophenol	184	9.089	9.089	0.000	66	1481466	160.0	167.0	
93 4-Nitrophenol	109	9.126	9.121	0.005	35	1608597	160.0	173.3	
94 2,4-Dinitrotoluene	165	9.201	9.207	-0.006	90	1516658	80.0	84.8	
95 Dibenzofuran	168	9.244	9.244	0.000	80	6754535	80.0	79.4	
97 2,3,5,6-Tetrachlorophenol	232	9.308	9.314	-0.006	92	1441186	80.0	90.8	
99 2,3,4,6-Tetrachlorophenol	232	9.345	9.351	-0.006	72	1403981	80.0	86.2	
100 2-Naphthylamine	143	9.377	9.378	-0.001	88	4662531	80.0	83.1	
101 Diethyl phthalate	149	9.409	9.410	-0.001	92	4721866	80.0	78.4	
102 Hexadecane	57	9.409	9.415	-0.006	74	2759336	80.0	77.6	
104 4-Chlorophenyl phenyl ethe	204	9.532	9.538	-0.006	93	2629261	80.0	81.2	
105 4-Nitroaniline	138	9.553	9.549	0.004	56	1288098	80.0	87.6	
106 Fluorene	166	9.553	9.559	-0.006	81	5228680	80.0	79.6	
108 4,6-Dinitro-2-methylphenol	198	9.580	9.581	-0.001	69	1993091	160.0	172.8	
109 N-Nitrosodiphenylamine	169	9.639	9.639	0.000	57	4038897	80.0	81.8	
111 1,2-Diphenylhydrazine	77	9.682	9.682	0.000	1	5269233	80.0	76.7	
116 4-Bromophenyl phenyl ether	248	9.981	9.987	-0.006	62	1513152	80.0	81.0	
118 Hexachlorobenzene	284	10.066	10.072	-0.006	89	1600683	80.0	80.8	
119 Atrazine	200	10.098	10.104	-0.006	73	1427923	80.0	83.2	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.232	10.238	-0.006	86	2002591	160.0	161.9	
121 n-Octadecane	57	10.237	10.243	-0.006	97	2744154	80.0	75.9	
126 Phenanthrene	178	10.440	10.441	0.000	97	7544297	80.0	77.5	
128 Anthracene	178	10.488	10.489	-0.001	96	8072007	80.0	82.3	
130 Carbazole	167	10.622	10.627	-0.005	82	7378374	80.0	84.9	
132 Di-n-butyl phthalate	149	10.910	10.916	-0.006	100	8395543	80.0	86.7	
137 Fluoranthene	202	11.706	11.712	-0.006	96	8175417	80.0	81.9	
138 Benzidine	184	11.829	11.835	-0.006	99	3724716	80.0	84.3	
139 Pyrene	202	11.994	12.005	-0.011	98	8505232	80.0	79.3	
144 Butyl benzyl phthalate	149	12.833	12.839	-0.006	98	3466175	80.0	87.8	
149 3,3'-Dichlorobenzidine	252	13.778	13.779	-0.001	69	2694797	80.0	91.6	
151 Bis(2-ethylhexyl) phthalat	149	13.815	13.821	-0.006	95	4757710	80.0	89.9	
152 Benzo[a]anthracene	228	13.858	13.859	-0.001	93	7439160	80.0	81.8	
153 Chrysene	228	13.922	13.928	-0.006	95	7222324	80.0	82.3	
156 Di-n-octyl phthalate	149	15.103	15.109	-0.006	99	7917322	80.0	87.3	
157 7,12-Dimethylbenz(a)anthra	256	15.963	15.963	0.000	65	3394350	80.0	82.6	
158 Benzo[b]fluoranthene	252	15.979	15.979	0.000	96	7549713	80.0	76.8	
159 Benzo[k]fluoranthene	252	16.032	16.033	-0.001	99	7493569	80.0	82.9	
176 Benzo[e]pyrene	252	16.550	16.551	-0.001	0	6996423	80.0	80.2	
160 Benzo[a]pyrene	252	16.652	16.658	-0.006	73	6979211	80.0	82.5	
163 Indeno[1,2,3-cd]pyrene	276	18.964	18.960	0.004	94	7438618	80.0	84.8	
164 Dibenz(a,h)anthracene	278	18.991	18.992	-0.001	72	6511638	80.0	86.3	
165 Benzo[g,h,i]perylene	276	19.541	19.542	-0.001	93	6378301	80.0	87.3	
S 208 Methyl Phenols, Total	108				0		160.0	153.6	
S 206 Total Cresols	108				0		160.0	153.6	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPSTD80i\_00005

Amount Added: 1.00

Units: mL



Report Date: 28-Aug-2014 12:52:04

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828010.D

Injection Date: 28-Aug-2014 05:47:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 10

Client ID:

Injection Vol: 2.0 ul

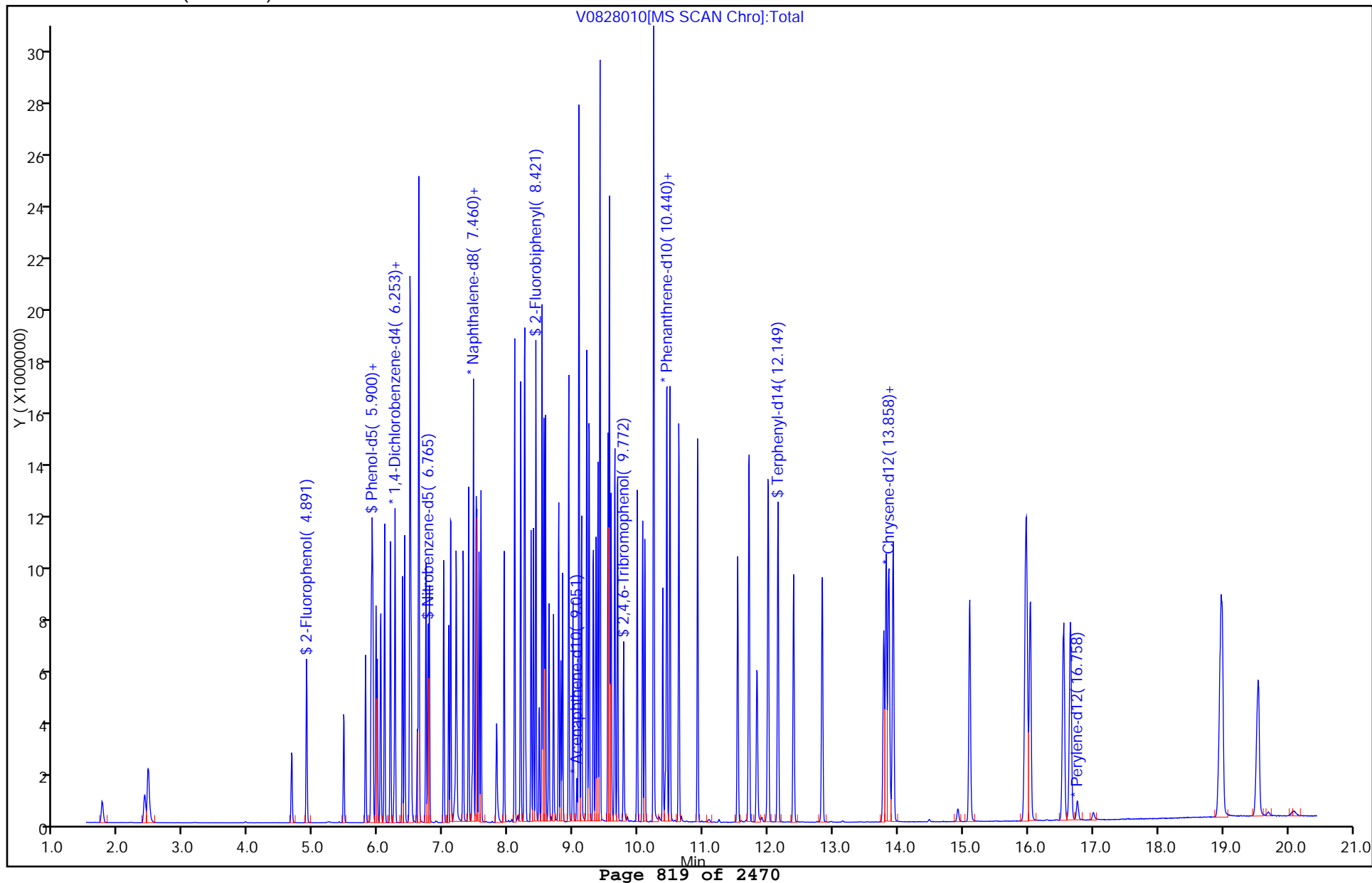
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-112749/3	D0728003.D
Level 2	IC 180-112749/4	D0728004.D
Level 3	IC 180-112749/5	D0728005.D
Level 4	ICIS 180-112749/6	D0728006.D
Level 5	IC 180-112749/7	D0728007.D
Level 6	IC 180-112749/8	D0728008.D
Level 7	IC 180-112749/9	D0728009.D
Level 8	IC 180-112749/10	D0728010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.3601	0.3729 0.3681	0.4606 0.3513	0.3760	0.3516	Ave		0.3772			0.0100	10.0		20.0			
N-Nitrosodimethylamine	0.5410 0.5363	0.4805 0.5456	0.5222 0.5367	0.5188	0.5042	Ave		0.5232			0.0100	4.2		20.0			
Pyridine	0.6915 1.0002	0.9408 1.0399	0.9391 1.0273	0.9616	0.9324	Ave		0.9416			0.0100	12.0		20.0			
Methyl methanesulfonate	0.7159 0.6537	0.6137 0.6261	0.6358 0.6229	0.6383	0.6188	Ave		0.6407			0.0100	5.1		20.0			
Benzaldehyde	0.9513 0.9364	0.9358 0.7736	0.9485 0.6588	0.9436	0.9190	Ave		0.8834			0.0100	12.0		20.0			
Aniline	1.9333 2.0607	1.9902 2.0509	2.0043 2.0103	1.9995	1.9430	Ave		1.9990			0.0100	2.3		20.0			
Phenol	1.7296 1.7625	1.7285 1.7273	1.7218 1.7078	1.6856	1.6758	Ave		1.7174			0.8000	1.6		20.0			
Bis(2-chloroethyl)ether	1.3009 1.1587	1.1669 1.1265	1.1519 1.1240	1.1171	1.0928	Ave		1.1549			0.7000	5.5		20.0			
2-Chlorophenol	1.3491 1.3531	1.2706 1.3713	1.2765 1.3307	1.3271	1.2724	Ave		1.3188			0.8000	3.1		20.0			
n-Decane	1.5971 1.2839	1.2925 1.2902	1.2935 1.2787	1.2440	1.2338	Ave		1.3142				8.9		20.0			
1,3-Dichlorobenzene	1.8854 1.5684	1.5145 1.5708	1.5766 1.5570	1.5378	1.5003	Ave		1.5889			0.0100	7.7		20.0			
1,4-Dichlorobenzene	1.8399 1.6154	1.5707 1.6173	1.5933 1.6000	1.5655	1.5180	Ave		1.6150			0.0100	6.0		20.0			
Benzyl alcohol	0.4903 0.8262	0.7300 0.8194	0.7755 0.8027	0.8133	0.7976	Ave		0.7569			0.0100	15.0		20.0			
1,2-Dichlorobenzene	1.8115 1.5322	1.5342 1.5275	1.5483 1.5068	1.5098	1.4633	Ave		1.5542			0.0100	6.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Indene	2.5096 2.2174	2.1550 2.2332	2.2179 2.1830	2.1488	2.1122	Ave		2.2221			0.0100	5.5		20.0			
2-Methylphenol	1.1561 1.2129	1.1733 1.2167	1.1784 1.1650	1.1878	1.1693	Ave		1.1824			0.7000	1.9		20.0			
2,2'-oxybis[1-chloropropane]	1.9563 1.7176	1.7516 1.7087	1.7922 1.6696	1.7333	1.6762	Ave		1.7507			0.0100	5.3		20.0			
N-Nitrosopyrrolidine	0.5443 0.6076	0.5674 0.5904	0.6058 0.5843	0.5857	0.5923	Ave		0.5847			0.0100	3.5		20.0			
Acetophenone	2.0038 1.8202	1.8653 1.7904	1.8539 1.7302	1.8113	1.7894	Ave		1.8331			0.0100	4.4		20.0			
N-Nitrosodi-n-propylamine	0.9560 0.9635	0.9829 0.9313	1.0163 0.8881	0.9631	0.9377	Ave		0.9549			0.5000	4.0		20.0			
Methylphenol, 3 & 4	1.2336 1.2984	1.2251 1.2781	1.3044 1.2558	1.2923	1.2660	Ave		1.2692			0.6000	2.3		20.0			
Hexachloroethane	0.6365 0.5976	0.5897 0.5937	0.6047 0.5821	0.5615	0.5586	Ave		0.5906			0.3000	4.2		20.0			
Nitrobenzene	0.3541 0.3457	0.3425 0.3451	0.3430 0.3495	0.3513	0.3433	Ave		0.3468			0.2000	1.2		20.0			
Isophorone	0.6196 0.6233	0.5959 0.6200	0.5864 0.6230	0.6124	0.5961	Ave		0.6096			0.4000	2.4		20.0			
2-Nitrophenol	0.1574 0.1872	0.1638 0.1866	0.1730 0.1875	0.1840	0.1818	Ave		0.1777			0.1000	6.6		20.0			
2,4-Dimethylphenol	0.3296 0.3351	0.3347 0.3294	0.3197 0.3376	0.3362	0.3252	Ave		0.3309			0.2000	1.9		20.0			
Benzoic acid	++++ 0.1677	++++ 0.1745	0.0616 0.1783	0.0996	0.1326	Lin1	-0.617	0.1824			0.0100				0.9960		0.9900
Bis(2-chloroethoxy)methane	0.4201 0.3672	0.3786 0.3711	0.3694 0.3686	0.3664	0.3592	Ave		0.3751			0.3000	5.1		20.0			
2,4-Dichlorophenol	0.2911 0.3039	0.2813 0.3075	0.2933 0.3075	0.2960	0.2943	Ave		0.2969			0.2000	3.0		20.0			
1,2,4-Trichlorobenzene	0.4119 0.3575	0.3647 0.3511	0.3566 0.3595	0.3578	0.3462	Ave		0.3631			0.0100	5.6		20.0			
Naphthalene	1.1656 1.0592	1.0365 1.0989	1.0228 1.1219	1.0283	1.0226	Ave		1.0695			0.7000	5.0		20.0			
4-Chloroaniline	0.4459 0.4351	0.4312 0.4360	0.4127 0.4304	0.4265	0.4274	Ave		0.4307			0.0100	2.2		20.0			
2,6-Dichlorophenol	0.3336 0.3037	0.2938 0.2965	0.2998 0.3009	0.3063	0.2963	Ave		0.3039			0.0100	4.2		20.0			
Hexachlorobutadiene	0.2439 0.2198	0.2389 0.2228	0.2194 0.2233	0.2224	0.2165	Ave		0.2259			0.0100	4.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Caprolactam	+++++ 0.0935	0.0698 0.0898	0.0744 0.0902	0.0886	0.0886	Ave		0.0850			0.0100	11.0		20.0			
4-Chloro-3-methylphenol	0.2766 0.3012	0.2840 0.2969	0.2740 0.2981	0.2960	0.2984	Ave		0.2907			0.2000	3.7		20.0			
2-Methylnaphthalene	0.8227 0.7168	0.7477 0.7215	0.6925 0.7344	0.7156	0.7056	Ave		0.7321			0.4000	5.5		20.0			
1-Methylnaphthalene	0.8111 0.6805	0.6988 0.6770	0.6778 0.6839	0.6721	0.6541	Ave		0.6944			0.0100	7.0		20.0			
Hexachlorocyclopentadiene	+++++ 0.4026	0.3119 0.4315	0.3153 0.4361	0.3701	0.3801	Ave		0.3782			0.0500	13.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.7511 0.6144	0.6289 0.6327	0.5907 0.6248	0.6095	0.6009	Ave		0.6316			0.0100	8.0		20.0			
2,4,6-Trichlorophenol	0.3552 0.3847	0.3401 0.3963	0.3344 0.3915	0.3661	0.3834	Ave		0.3690			0.2000	6.4		20.0			
2,4,5-Trichlorophenol	0.3336 0.4134	0.3716 0.4190	0.3608 0.4164	0.3847	0.3940	Ave		0.3867			0.2000	7.8		20.0			
1,1'-Biphenyl	1.6622 1.4644	1.4705 1.5283	1.3919 1.5522	1.4161	1.4106	Ave		1.4870			0.0100	6.1		20.0			
2-Chloronaphthalene	1.3745 1.1836	1.2647 1.2889	1.2605 1.2928	1.2886	1.2126	Ave		1.2708			0.8000	4.5		20.0			
2-Nitroaniline	0.2557 0.3161	0.2802 0.3163	0.2893 0.3091	0.3112	0.3085	Ave		0.2983			0.0100	7.2		20.0			
Dimethyl phthalate	1.3149 1.2668	1.2675 1.3106	1.2330 1.3061	1.2397	1.2242	Ave		1.2704			0.0100	2.9		20.0			
1,3-Dinitrobenzene	0.1635 0.1990	0.1721 0.2023	0.1896 0.2026	0.1921	0.1900	Ave		0.1889			0.0100	7.5		20.0			
2,6-Dinitrotoluene	0.2404 0.2909	0.2701 0.2892	0.2845 0.2869	0.2850	0.2834	Ave		0.2788			0.2000	6.0		20.0			
Acenaphthylene	1.7378 1.8939	1.7282 1.9518	1.7536 1.9440	1.7517	1.7978	Ave		1.8199			0.9000	5.2		20.0			
3-Nitroaniline	0.2165 0.2932	0.2643 0.2973	0.2714 0.2937	0.2943	0.2799	Ave		0.2763			0.0100	9.8		20.0			
Acenaphthene	1.3986 1.1634	1.1502 1.1911	1.1323 1.2124	1.1582	1.1417	Ave		1.1935			0.9000	7.3		20.0			
2,4-Dinitrophenol	+++++ 0.1903	0.0767 0.2002	0.0990 0.2024	0.1464	0.1616	Lin1	-0.698	0.2014			0.0100				0.9960		0.9900
4-Nitrophenol	0.0981 0.1495	0.1220 0.1534	0.1239 0.1490	0.1384	0.1431	Ave		0.1347			0.0100	14.0		20.0			
2,4-Dinitrotoluene	0.3276 0.3729	0.3460 0.3770	0.3701 0.3773	0.3738	0.3715	Ave		0.3645			0.2000	4.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibenzofuran	1.9057 1.7249	1.7280 1.7892	1.6654 1.8035	1.6472	1.6431	Ave		1.7384			0.8000	5.2		20.0			
2,3,4,6-Tetrachlorophenol	0.3021 0.3627	0.3128 0.3674	0.3145 0.3664	0.3282	0.3470	Ave		0.3376			0.0100	7.9		20.0			
2,3,5,6-Tetrachlorophenol	0.2895 0.3593	0.3068 0.3594	0.3273 0.3616	0.3375	0.3423	Ave		0.3355			0.0100	7.9		20.0			
2-Naphthylamine	0.9990 1.1316	1.1109 1.1460	1.0930 1.1218	1.1195	1.0897	Ave		1.1014			0.0100	4.1		20.0			
Diethyl phthalate	1.3319 1.1897	1.2097 1.2029	1.2005 1.1899	1.1630	1.1576	Ave		1.2057			0.0100	4.5		20.0			
Hexadecane	0.5436 0.4896	0.5012 0.4674	0.5019 0.4620	0.4839	0.4806	Ave		0.4913				5.2		20.0			
4-Chlorophenyl phenyl ether	0.7950 0.7064	0.6918 0.7156	0.7038 0.7153	0.6986	0.7007	Ave		0.7159			0.4000	4.6		20.0			
Fluorene	1.4833 1.3269	1.3353 1.3573	1.3099 1.3567	1.3101	1.2908	Ave		1.3463			0.9000	4.5		20.0			
4-Nitroaniline	0.2167 0.2939	0.2480 0.2914	0.2600 0.2931	0.2805	0.2715	Ave		0.2694			0.0100	10.0		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1495	+++++ 0.1581	0.1149 0.1594	0.1316	0.1408	Ave		0.1424			0.0100	12.0		20.0			
N-Nitrosodiphenylamine	0.5943 0.5705	0.5466 0.5762	0.5523 0.5803	0.5634	0.5420	Ave		0.5657			0.0100	3.2		20.0			
1,2-Diphenylhydrazine (as Azobenzene)	0.6752 0.7192	0.6772 0.7614	0.7279 0.7527	0.7208	0.7155	Ave		0.7187			0.0100	4.3		20.0			
4-Bromophenyl phenyl ether	0.2352 0.2277	0.2246 0.2312	0.2247 0.2331	0.2244	0.2184	Ave		0.2274			0.1000	2.4		20.0			
Hexachlorobenzene	0.2326 0.2116	0.2152 0.2182	0.2234 0.2219	0.2114	0.2059	Ave		0.2175			0.1000	3.9		20.0			
Atrazine	0.2046 0.2207	0.2038 0.2217	0.2049 0.2247	0.2124	0.2131	Ave		0.2132			0.0100	3.9		20.0			
Pentachlorophenol	0.0652 0.1353	0.0719 0.1444	0.0900 0.1465	0.1100	0.1265	Lin1	-0.138	0.1410			0.0500				0.9940		0.9900
n-Octadecane	2.0020 2.1829	2.1108 2.0109	2.1434 1.9459	2.1423	2.0751	Ave		2.0767				4.0		20.0			
Phenanthrene	1.2564 1.1291	1.1318 1.1934	1.1554 1.2069	1.1128	1.0933	Ave		1.1599			0.7000	4.7		20.0			
Anthracene	1.1073 1.1761	1.1214 1.2145	1.1507 1.2712	1.1518	1.1378	Ave		1.1663			0.7000	4.6		20.0			
Carbazole	1.0193 0.9919	0.9467 1.0274	0.9449 1.0729	0.9822	0.9646	Ave		0.9938			0.0100	4.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Di-n-butyl phthalate	0.9501 1.1802	1.0223 1.2242	1.0458 1.2611	1.1199	1.1418	Ave		1.1182			0.0100	9.5		20.0			
Fluoranthene	1.2369 1.2355	1.1554 1.2742	1.1672 1.2932	1.1732	1.1774	Ave		1.2141			0.6000	4.4		20.0			
Benzidine	0.3930 0.6079	0.4521 0.5399	0.4744 0.4827	0.5779	0.6134	Ave		0.5176			0.0100	15.0		20.0			
Pyrene	1.3484 1.2688	1.2406 1.3203	1.2615 1.3263	1.2943	1.2658	Ave		1.2908			0.6000	2.9		20.0			
Butyl benzyl phthalate	0.3769 0.4664	0.3919 0.4827	0.4047 0.4795	0.4469	0.4531	Ave		0.4378			0.0100	9.4		20.0			
3,3'-Dichlorobenzidine	0.2998 0.3815	0.2987 0.3804	0.3269 0.3884	0.3577	0.3645	Ave		0.3497			0.0100	10.0		20.0			
Bis(2-ethylhexyl) phthalate	0.4571 0.6800	0.5075 0.6950	0.5305 0.6909	0.6161	0.6398	Ave		0.6021			0.0100	15.0		20.0			
Benzo[a]anthracene	1.2876 1.1779	1.1529 1.1834	1.1249 1.2214	1.1545	1.1444	Ave		1.1809			0.8000	4.4		20.0			
Chrysene	1.1936 1.1293	1.1178 1.1515	1.0960 1.1787	1.0953	1.0941	Ave		1.1320			0.7000	3.4		20.0			
Di-n-octyl phthalate	++++ 1.4299	0.9208 1.4777	1.0491 1.4996	1.2092	1.3229	Ave		1.2728			0.0100	18.0		20.0			
7,12-Dimethylbenz(a)anthracene	0.5589 0.6256	0.5542 0.6205	0.5778 0.6359	0.6085	0.5895	Ave		0.5964			0.0100	5.2		20.0			
Benzo[b]fluoranthene	1.3250 1.3678	1.1801 1.3296	1.2782 1.4197	1.3135	1.2820	Ave		1.3120			0.7000	5.4		20.0			
Benzo[k]fluoranthene	1.2670 1.3028	1.2874 1.3729	1.2801 1.3673	1.3387	1.3107	Ave		1.3159			0.7000	3.0		20.0			
Benzo[e]pyrene	1.2584 1.2033	1.1069 1.2121	1.1539 1.2455	1.1907	1.1679	Ave		1.1923			0.0100	4.1		20.0			
Benzo[a]pyrene	1.1963 1.2197	1.0827 1.2402	1.0882 1.2934	1.1897	1.1746	Ave		1.1856			0.7000	6.1		20.0			
Indeno[1,2,3-cd]pyrene	1.1962 1.2939	1.1574 1.3420	1.1607 1.4066	1.2036	1.2320	Ave		1.2491			0.5000	7.2		20.0			
Dibenz(a,h)anthracene	0.9912 1.0931	0.9859 1.1378	1.0043 1.2116	1.0269	1.0453	Ave		1.0620			0.4000	7.5		20.0			
Benzo[g,h,i]perylene	1.0754 1.0668	0.9837 1.1191	0.9925 1.1723	1.0341	1.0288	Ave		1.0591			0.5000	6.0		20.0			
2-Fluorophenol (Surr)	0.9797 1.1041	0.9800 1.1179	1.0196 1.1025	1.0860	1.0508	Ave		1.0551				5.3		20.0			
Phenol-d5 (Surr)	1.6796 1.5943	1.5278 1.5762	1.5409 1.5265	1.5610	1.5036	Ave		1.5637				3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Nitrobenzene-d5 (Surr)	0.3533 0.3439	0.3472 0.3514	0.3384 0.3541	0.3404	0.3371	Ave		0.3457				2.0		20.0			
2-Fluorobiphenyl	1.5065 1.3958	1.3402 1.4520	1.2770 1.4390	1.3416	1.3272	Ave		1.3849				5.5		20.0			
2,4,6-Tribromophenol (Surr)	0.0758 0.0895	0.0784 0.0927	0.0791 0.0935	0.0865	0.0860	Ave		0.0852			0.0100	7.9		20.0			
Terphenyl-d14 (Surr)	0.9148 0.9299	0.8917 0.9520	0.8963 0.9535	0.9117	0.9028	Ave		0.9191				2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-112749/3	D0728003.D
Level 2	IC 180-112749/4	D0728004.D
Level 3	IC 180-112749/5	D0728005.D
Level 4	ICIS 180-112749/6	D0728006.D
Level 5	IC 180-112749/7	D0728007.D
Level 6	IC 180-112749/8	D0728008.D
Level 7	IC 180-112749/9	D0728009.D
Level 8	IC 180-112749/10	D0728010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	++++ 257440	14757 397414	34637 493762	72284	137804	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodimethylamine	DCB	Ave	4274 383375	19014 589009	39270 754278	99748	197649	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pyridine	DCB	Ave	5463 714997	37225 1122637	70623 1443919	184880	365472	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Methyl methanesulfonate	DCB	Ave	5656 467272	24285 675872	47816 875517	122724	242553	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzaldehyde	DCB	Ave	7516 669367	37029 835089	71331 925983	181427	360217	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Aniline	DCB	Ave	15274 1473087	78750 2213932	150734 2825452	384431	761598	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol	DCB	Ave	13665 1259939	68396 1864628	129488 2400282	324078	656863	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-chloroethyl)ether	DCB	Ave	10278 828317	46172 1216118	86631 1579735	214776	428355	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chlorophenol	DCB	Ave	10659 967270	50274 1480324	95998 1870292	255146	498738	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
n-Decane	DCB	Ave	12618 917763	51144 1392768	97277 1797119	239175	483607	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	14896 1121175	59927 1695651	118574 2188336	295663	588100	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	14536 1154788	62151 1745904	119827 2248799	300983	595034	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzyl alcohol	DCB	Ave	3874 590632	28885 884565	58323 1128151	156363	312639	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	14312 1095317	60706 1648963	116442 2117813	290282	573576	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Indene	DCB	Ave	19827 1585077	85271 2410777	166798 3068163	413147	827949	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0



FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Methylphenol	DCB	Ave	9134 867010	46427 1313458	88623 1637317	228375	458351	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	15456 1227813	69310 1844607	134784 2346623	333255	657023	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosopyrrolidine	DCB	Ave	4300 434363	22452 637376	45559 821281	112607	232188	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acetophenone	DCB	Ave	15831 1301187	73809 1932724	139424 2431801	348250	701410	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
N-Nitrosodi-n-propylamine	DCB	Ave	7553 688778	38893 1005373	76436 1248217	185172	367578	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Methylphenol, 3 & 4	DCB	Ave	9746 928127	48474 1379719	98098 1764999	248455	496238	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachloroethane	DCB	Ave	5029 427211	23334 640945	45479 818136	107962	218967	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene	NPT	Ave	11476 1058300	56306 1559236	111076 2013919	281438	554457	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Isophorone	NPT	Ave	20077 1908149	97983 2801332	189921 3589983	490700	962731	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitrophenol	NPT	Ave	5099 573181	26930 842947	56035 1080614	147397	293573	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dimethylphenol	NPT	Ave	10680 1025957	55027 1488440	103561 1945278	269337	525164	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzoic acid	NPT	Lin1	++++ 513454	++++ 788387	19948 1027292	79815	214088	++++ 40.0	++++ 60.0	4.00 80.0	10.0	20.0
Bis(2-chloroethoxy)methane	NPT	Ave	13614 1124043	62252 1676763	119631 2124302	293528	580114	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dichlorophenol	NPT	Ave	9432 930157	46250 1389435	95007 1771758	237196	475326	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4-Trichlorobenzene	NPT	Ave	13346 1094256	59967 1586228	115482 2071883	286667	559098	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Naphthalene	NPT	Ave	37772 3242343	170415 4965155	331254 6464956	823880	1651561	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloroaniline	NPT	Ave	14449 1332027	70891 1969864	133667 2480233	341758	690371	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dichlorophenol	NPT	Ave	10811 929642	48314 1339589	97088 1733757	245400	478613	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobutadiene	NPT	Ave	7905 672849	39274 1006637	71053 1286669	178230	349602	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Caprolactam	NPT	Ave	++++ 286247	11480 405654	24097 519613	70974	143038	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chloro-3-methylphenol	NPT	Ave	8963 922012	46689 1341484	88757 1717887	237154	481996	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Methylnaphthalene	NPT	Ave	26660 2194348	122937 3259918	224301 4232321	573361	1139612	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1-Methylnaphthalene	NPT	Ave	26282 2083294	114894 3059029	219542 3940798	538497	1056450	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorocyclopentadiene	ANT	Ave	++++ 785311	33687 1184506	67588 1544642	191101	388858	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	16063 1198541	67933 1736846	126636 2213114	314703	614797	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Trichlorophenol	ANT	Ave	7596 750520	36731 1087861	71696 1386821	189056	392293	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,5-Trichlorophenol	ANT	Ave	7134 806416	40142 1150302	77349 1474840	198636	403136	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,1'-Biphenyl	ANT	Ave	35548 2856673	158831 4195261	298388 5498102	731184	1443124	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Chloronaphthalene	ANT	Ave	29395 2308753	136601 3538163	270221 4579192	665343	1240590	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Nitroaniline	ANT	Ave	5469 616530	30265 868253	62019 1094953	160676	315645	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dimethyl phthalate	ANT	Ave	28121 2471216	136907 3597804	264343 4626311	640110	1252453	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,3-Dinitrobenzene	ANT	Ave	3496 388222	18586 555337	40644 717506	99212	194374	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,6-Dinitrotoluene	ANT	Ave	5142 567436	29173 793914	60984 1016296	147137	289919	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acenaphthylene	ANT	Ave	37165 3694378	186661 5357795	375950 6885901	904503	1839231	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3-Nitroaniline	ANT	Ave	4631 571921	28545 816217	58182 1040186	151981	286382	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Acenaphthene	ANT	Ave	29910 2269440	124232 3269710	242743 4294302	598027	1168084	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4-Dinitrophenol	ANT	Lin1	++++ 742575	16574 1099043	42457 1433503	151193	330653	++++ 80.0	4.00 120	8.00 160	20.0	40.0
4-Nitrophenol	ANT	Ave	4197 583224	26361 841931	53137 1055741	142940	292804	0.800 80.0	4.00 120	8.00 160	20.0	40.0
2,4-Dinitrotoluene	ANT	Ave	7005 727470	37377 1034956	79338 1336381	192993	380080	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenzofuran	ANT	Ave	40754 3364771	186647 4911542	357031 6388179	850505	1681008	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	6460 707528	33787 1008538	67431 1297650	169491	355012	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,3,5,6-Tetrachlorophenol	ANT	Ave	6192 700821	33135 986566	70175 1280872	174266	350217	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Naphthylamine	ANT	Ave	21365 2207327	119988 3145998	234329 3973407	578028	1114888	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Diethyl phthalate	ANT	Ave	28483 2320820	130655 3302005	257355 4214861	600533	1184348	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexadecane	NPT	Ave	17615 1498672	82401 2111715	162556 2662354	387719	776197	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Chlorophenyl phenyl ether	ANT	Ave	17002 1378047	74724 1964308	150872 2533502	360714	716838	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluorene	ANT	Ave	31721 2588317	144230 3725886	280814 4805518	676483	1320533	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Nitroaniline	ANT	Ave	4634 573249	26792 800043	55734 1038100	144852	277760	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4,6-Dinitro-2-methylphenol	PHN	Ave	++++ 1019686	++++ 1505207	86369 1930518	235098	501573	++++ 80.0	++++ 120	8.00 160	20.0	40.0
N-Nitrosodiphenylamine	PHN	Ave	23461 1945864	107845 2743169	207596 3514663	503094	965392	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
1,2-Diphenylhydrazine (as Azobenzene)	PHN	Ave	26658 2453182	133604 3624759	273604 4558896	643652	1274373	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
4-Bromophenyl phenyl ether	PHN	Ave	9285 776585	44313 1100658	84447 1411732	200438	388979	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Hexachlorobenzene	PHN	Ave	9183 721877	42454 1038668	83981 1344007	188792	366801	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Atrazine	PHN	Ave	8078 752928	40206 1055407	77004 1360883	189669	379503	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pentachlorophenol	PHN	Lin1	5147 922796	28368 1374435	67667 1774177	196481	450758	0.800 80.0	4.00 120	8.00 160	20.0	40.0
n-Octadecane	DCB	Ave	15817 1560435	83522 2170741	161198 2734956	411898	813416	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenanthrene	PHN	Ave	49601 3851063	223303 5681389	434334 7309630	993734	1947299	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Anthracene	PHN	Ave	43716 4011360	221252 5781549	432547 7698691	1028604	2026576	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Carbazole	PHN	Ave	40242 3383290	186796 4891086	355182 6498122	877094	1718091	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-butyl phthalate	PHN	Ave	37509 4025506	201700 5827666	393122 7637525	1000098	2033554	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Fluoranthene	PHN	Ave	48831 4214177	227954 6066005	438746 7832368	1047707	2097029	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzidine	CRY	Ave	14958 2016804	86171 2507223	173209 2888583	487875	1049626	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Pyrene	CRY	Ave	51324 4209065	236484 6131342	460634 7936822	1092656	2166214	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749

SDG No.: \_\_\_\_\_

Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Butyl benzyl phthalate	CRY	Ave	14345 1547229	74703 2241368	147787 2869670	377257	775350	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
3,3'-Dichlorobenzidine	CRY	Ave	11412 1265756	56939 1766295	119366 2324488	302010	623689	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	17398 2255911	96732 3227520	193713 4134691	520126	1094896	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]anthracene	CRY	Ave	49008 3907750	219759 5495346	410741 7309072	974671	1958419	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Chrysene	CRY	Ave	45430 3746523	213072 5347525	400172 7053946	924675	1872310	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Di-n-octyl phthalate	PRY	Ave	++++ 3703120	139183 5465557	290093 7244732	778439	1776670	++++ 40.0	2.00 60.0	4.00 80.0	10.0	20.0
7,12-Dimethylbenz(a)anthracene	PRY	Ave	17305 1620058	83765 2294866	159783 3071974	391737	791721	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[b]fluoranthene	PRY	Ave	41026 3542178	178373 4917828	353436 6858911	845547	1721697	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[k]fluoranthene	PRY	Ave	39232 3373856	194593 5077882	353974 6605684	861801	1760231	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[e]pyrene	PRY	Ave	38964 3116197	167309 4482963	319084 6017420	766548	1568487	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[a]pyrene	PRY	Ave	37041 3158799	163652 4587159	300906 6248646	765858	1577509	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	37040 3350922	174944 4963580	320971 6795471	774798	1654517	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Dibenz(a,h)anthracene	PRY	Ave	30691 2830924	149028 4208157	277719 5853511	661054	1403787	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Benzo[g,h,i]perylene	PRY	Ave	33298 2762815	148683 4139128	274436 5663721	665730	1381712	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorophenol (Surr)	DCB	Ave	7740 789267	38778 1206833	76681 1549592	208798	411901	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Phenol-d5 (Surr)	DCB	Ave	13270 1139664	60451 1701566	115883 2145446	300130	589368	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Nitrobenzene-d5 (Surr)	NPT	Ave	11449 1052616	57079 1587927	109611 2040636	272706	544433	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2-Fluorobiphenyl	ANT	Ave	32217 2722697	144761 3985819	273776 5096937	692739	1357788	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
2,4,6-Tribromophenol (Surr)	PHN	Ave	2994 305391	15475 441185	29723 566217	77291	153161	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0
Terphenyl-d14 (Surr)	CRY	Ave	34821 3084863	169977 4420801	327257 5705867	769679	1544956	0.400 40.0	2.00 60.0	4.00 80.0	10.0	20.0

FORM VI  
GC/MS SEMI VOA INITIAL CALIBRATION DATA  
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 112749  
SDG No.: \_\_\_\_\_  
Instrument ID: CH732 GC Column: Rxi-5SilMS ID: 0.32 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 07/28/2014 04:52 Calibration End Date: 07/28/2014 07:56 Calibration ID: 16864

Curve Type Legend:

Ave = Average ISTD Lin1 = Linear 1/conc ISTD
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TestAmerica Laboratories  
Initial Calibration %Drift Report

Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m

Instrument: CH732

Lims Location: 180

Lock State: Initial Calib Locked

Cpnd Order: Compound Type

Integrator: RTE

Last Modified: 04-Aug-2014 06:39:17

No.Compounds:209

## Initial Calibration Batches

Ical Batch: \\PITCHROM\ChromData\CH732\20140423-880.b

Inj Date : 24-Apr-2014 09:04:30, Sublist: chrom-BNA\_CH732\*sub3

Ical Batch: \\PITCHROM\ChromData\CH732\20140728-2436.b

Inj Date : 28-Jul-2014 04:52:30, Sublist: chrom-BNA\_CH732\*sub4

Limit Group: BNA 8270D ICAL

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
* 1 1,4-Dichlorobenzene-d4	213080	199464	205766	218617	191502	179527	197933	190552
* 2 Naphthalene-d8	988253	894304	934582	982950	893368	814611	879589	872436
* 3 Acenaphthene-d10	640514	601120	630140	640530	606106	554633	608602	577995
* 4 Phenanthrene-d10	1220927	1142146	1192458	1196718	1129726	1048524	1165777	1095814
* 5 Chrysene-d12	1037853	978015	993612	1089527	1049959	974624	1012722	978613
* 6 Perylene-d12	885179	847818	830432	938133	896677	863103	865446	859197
\$ 7 2-Fluorophenol	-7.1	-7.1	-3.4	2.9	-0.4	4.6	6.0	4.5
\$ 8 Phenol-d5	7.4	-2.3	-1.5	-0.2	-3.8	2.0	0.8	-2.4
\$ 9 Nitrobenzene-d5	2.2	0.4	-2.1	-1.5	-2.5	-0.5	1.7	2.4
\$ 10 2-Fluorobiphenyl	8.8	-3.2	-7.8	-3.1	-4.2	0.8	4.8	3.9
\$ 11 2,4,6-Tribromophenol	-11.0	-7.9	-7.2	1.6	0.9	5.1	8.8	9.7
\$ 12 Terphenyl-d14	-0.5	-3.0	-2.5	-0.8	-1.8	1.2	3.6	3.7
13 1,4-Dioxane	Disabled	-1.1	22.1	-0.3	-6.8	-4.5	-2.4	-6.9
14 N-Nitrosodimethylamine	3.4	-8.1	-0.2	-0.8	-3.6	2.5	4.3	2.6
15 Pyridine	-26.6	-0.1	-0.3	2.1	-1.0	6.2	10.4	9.1
21 Methyl methanesulfonat	11.7	-4.2	-0.8	-0.4	-3.4	2.0	-2.3	-2.8
25 Benzaldehyde	7.7	5.9	7.4	6.8	4.0	6.0	-12.4	-25.4
26 Phenol	0.7	0.7	0.3	-1.9	-2.4	2.6	0.6	-0.6
27 Aniline	-3.3	-0.4	0.3	0.0	-2.8	3.1	2.6	0.6
29 Bis(2-chloroethyl)ethe	12.6	1.0	-0.3	-3.3	-5.4	0.3	-2.5	-2.7
30 2-Chlorophenol	2.3	-3.7	-3.2	0.6	-3.5	2.6	4.0	0.9
31 n-Decane	21.5	-1.6	-1.6	-5.3	-6.1	-2.3	-1.8	-2.7
32 1,3-Dichlorobenzene	18.7	-4.7	-0.8	-3.2	-5.6	-1.3	-1.1	-2.0
33 1,4-Dichlorobenzene	13.9	-2.7	-1.3	-3.1	-6.0	0.0	0.1	-0.9
34 Benzyl alcohol	* -35.2	-3.6	2.5	7.5	5.4	9.2	8.3	6.1
35 1,2-Dichlorobenzene	16.6	-1.3	-0.4	-2.9	-5.9	-1.4	-1.7	-3.0
36 2-Methylphenol	-2.2	-0.8	-0.3	0.5	-1.1	2.6	2.9	-1.5
37 Indene	12.9	-3.0	-0.2	-3.3	-4.9	-0.2	0.5	-1.8
38 2,2'-oxybis[1-chloropr	11.7	0.1	2.4	-1.0	-4.3	-1.9	-2.4	-4.6
39 N-Nitrosopyrrolidine	-6.9	-3.0	3.6	0.2	1.3	3.9	1.0	-0.1
41 N-Nitrosodi-n-propylam	0.1	2.9	6.4	0.9	-1.8	0.9	-2.5	-7.0
40 Acetophenone	9.3	1.8	1.1	-1.2	-2.4	-0.7	-2.3	-5.6
42 4-Methylphenol	-2.8	-3.5	2.8	1.8	-0.3	2.3	0.7	-1.1
45 Hexachloroethane	7.8	-0.1	2.4	-4.9	-5.4	1.2	0.5	-1.4
46 Nitrobenzene	2.1	-1.3	-1.1	1.3	-1.0	-0.3	-0.5	0.8
48 Isophorone	1.6	-2.2	-3.8	0.5	-2.2	2.3	1.7	2.2
49 2-Nitrophenol	-11.4	-7.8	-2.6	3.6	2.3	5.4	5.0	5.6
50 2,4-Dimethylphenol	-0.4	1.1	-3.4	1.6	-1.7	1.3	-0.5	2.0
52 Benzoic acid	Disabled	Disabled	18.3	-11.6	-10.4	0.4	1.3	2.0
53 Bis(2-chloroethoxy)met	12.0	0.9	-1.5	-2.3	-4.2	-2.1	-1.1	-1.7

Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
54 2,4-Dichlorophenol	-1.9	-5.2	-1.2	-0.3	-0.9	2.4	3.6	3.6
56 1,2,4-Trichlorobenzene	13.4	0.4	-1.8	-1.5	-4.7	-1.6	-3.3	-1.0
58 Naphthalene	9.0	-3.1	-4.4	-3.8	-4.4	-1.0	2.7	4.9
59 4-Chloroaniline	3.5	0.1	-4.2	-1.0	-0.7	1.0	1.2	-0.1
60 2,6-Dichlorophenol	9.8	-3.3	-1.3	0.8	-2.5	-0.1	-2.4	-1.0
62 Hexachlorobutadiene	8.0	5.8	-2.9	-1.5	-4.2	-2.7	-1.4	-1.1
64 Caprolactam	Disabled	-17.8	-12.4	4.2	4.2	10.0	5.7	6.1
67 4-Chloro-3-methylpheno	-4.8	-2.3	-5.7	1.8	2.7	3.6	2.1	2.6
69 2-Methylnaphthalene	12.4	2.1	-5.4	-2.3	-3.6	-2.1	-1.5	0.3
71 1-Methylnaphthalene	16.8	0.6	-2.4	-3.2	-5.8	-2.0	-2.5	-1.5
72 Hexachlorocyclopentadi	Disabled	-17.5	-16.6	-2.1	0.5	6.4	14.1	15.3
73 1,2,4,5-Tetrachloroben	18.9	-0.4	-6.5	-3.5	-4.9	-2.7	0.2	-1.1
74 2,4,6-Trichlorophenol	-3.7	-7.8	-9.4	-0.8	3.9	4.3	7.4	6.1
75 2,4,5-Trichlorophenol	-13.7	-3.9	-6.7	-0.5	1.9	6.9	8.4	7.7
76 1,1'-Biphenyl	11.8	-1.1	-6.4	-4.8	-5.1	-1.5	2.8	4.4
77 2-Chloronaphthalene	8.2	-0.5	-0.8	1.4	-4.6	-6.9	1.4	1.7
79 2-Nitroaniline	-14.3	-6.1	-3.0	4.3	3.4	6.0	6.0	3.6
82 Dimethyl phthalate	3.5	-0.2	-2.9	-2.4	-3.6	-0.3	3.2	2.8
83 1,3-Dinitrobenzene	-13.5	-8.9	0.4	1.7	0.6	5.4	7.1	7.2
84 2,6-Dinitrotoluene	-13.8	-3.1	2.0	2.2	1.6	4.3	3.7	2.9
85 Acenaphthylene	-4.5	-5.0	-3.6	-3.7	-1.2	4.1	7.2	6.8
86 3-Nitroaniline	-21.6	-4.4	-1.8	6.5	1.3	6.1	7.6	6.3
88 Acenaphthene	17.2	-3.6	-5.1	-3.0	-4.3	-2.5	-0.2	1.6
87 2,4-Dinitrophenol	Disabled	24.8	-7.5	-10.0	-11.1	-1.2	2.3	2.6
89 4-Nitrophenol	-27.1	-9.4	-8.0	2.8	6.2	11.0	13.9	10.7
91 2,4-Dinitrotoluene	-10.1	-5.1	1.5	2.5	1.9	2.3	3.4	3.5
93 Dibenzofuran	9.6	-0.6	-4.2	-5.2	-5.5	-0.8	2.9	3.7
96 2,3,4,6-Tetrachlorophe	-10.5	-7.4	-6.8	-2.8	2.8	7.4	8.8	8.5
95 2,3,5,6-Tetrachlorophe	-13.7	-8.6	-2.4	0.6	2.0	7.1	7.1	7.8
97 2-Naphthylamine	-9.3	0.9	-0.8	1.6	-1.1	2.7	4.0	1.8
98 Diethyl phthalate	10.5	0.3	-0.4	-3.5	-4.0	-1.3	-0.2	-1.3
99 Hexadecane	10.7	2.0	2.2	-1.5	-2.2	-0.3	-4.9	-6.0
100 4-Chlorophenyl phenyl	11.1	-3.4	-1.7	-2.4	-2.1	-1.3	0.0	-0.1
103 Fluorene	10.2	-0.8	-2.7	-2.7	-4.1	-1.4	0.8	0.8
101 4-Nitroaniline	-19.6	-7.9	-3.5	4.1	0.8	9.1	8.2	8.8
104 4,6-Dinitro-2-methylph	Disabled	Disabled	-19.3	-7.5	-1.1	5.0	11.0	11.9
105 N-Nitrosodiphenylamine	5.0	-3.4	-2.4	-0.4	-4.2	0.8	1.9	2.6
90 1,2-Diphenylhydrazine	-6.1	-5.8	1.3	0.3	-0.4	0.1	5.9	4.7
110 4-Bromophenyl phenyl e	3.4	-1.2	-1.2	-1.3	-4.0	0.1	1.7	2.5
112 Hexachlorobenzene	6.9	-1.1	2.7	-2.8	-5.3	-2.7	0.3	2.0
113 Atrazine	-4.0	-4.4	-3.9	-0.4	-0.1	3.5	4.0	5.4
116 Pentachlorophenol	* 68.4	-24.6	-23.9	-17.1	-7.8	-2.8	3.2	4.5
RB								
115 n-Octadecane	-3.6	1.6	3.2	3.2	-0.1	5.1	-3.2	-6.3
121 Phenanthrene	8.3	-2.4	-0.4	-4.1	-5.7	-2.7	2.9	4.1
122 Anthracene	-5.1	-3.9	-1.3	-1.2	-2.4	0.8	4.1	9.0
124 Carbazole	2.6	-4.7	-4.9	-1.2	-2.9	-0.2	3.4	8.0
126 Di-n-butyl phthalate	-15.0	-8.6	-6.5	0.2	2.1	5.5	9.5	12.8
131 Fluoranthene	1.9	-4.8	-3.9	-3.4	-3.0	1.8	5.0	6.5
132 Benzidine	-24.1	-12.7	-8.4	11.6	18.5	17.4	4.3	-6.8
133 Pyrene	4.5	-3.9	-2.3	0.3	-1.9	-1.7	2.3	2.8
138 Butyl benzyl phthalate	-13.9	-10.5	-7.5	2.1	3.5	6.5	10.3	9.5
144 3,3'-Dichlorobenzidine	-14.3	-14.6	-6.5	2.3	4.2	9.1	8.8	11.1
145 Bis(2-ethylhexyl) phth	-24.1	-15.7	-11.9	2.3	6.3	12.9	15.4	14.7
146 Benzo[a]anthracene	9.0	-2.4	-4.7	-2.2	-3.1	-0.2	0.2	3.4
147 Chrysene	5.4	-1.3	-3.2	-3.2	-3.4	-0.2	1.7	4.1
150 Di-n-octyl phthalate	Disabled	-27.7	-17.6	-5.0	3.9	12.3	16.1	17.8
151 7,12-Dimethylbenz(a)an	-6.3	-7.1	-3.1	2.0	-1.1	4.9	4.0	6.6
152 Benzo[b]fluoranthene	1.0	-10.1	-2.6	0.1	-2.3	4.3	1.3	8.2
153 Benzo[k]fluoranthene	-3.7	-2.2	-2.7	1.7	-0.4	-1.0	4.3	3.9

Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
219 Benzo[e]pyrene	5.5	-7.2	-3.2	-0.1	-2.0	0.9	1.7	4.5
154 Benzo[a]pyrene	0.9	-8.7	-8.2	0.3	-0.9	2.9	4.6	9.1
157 Indeno[1,2,3-cd]pyrene	-4.2	-7.3	-7.1	-3.6	-1.4	3.6	7.4	12.6
158 Dibenzo[a,h]anthracene	-6.7	-7.2	-5.4	-3.3	-1.6	2.9	7.1	14.1
159 Benzo[g,h,i]perylene	1.5	-7.1	-6.3	-2.4	-2.9	0.7	5.7	10.7

## Icalib Error Legend

RB, Low Point Test Fails



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 28-Jul-2014 04:52:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-003  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:02 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:19:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.137	6.116	0.021	96	158012	8.00	8.00	
* 2 Naphthalene-d8	136	7.430	7.420	0.010	99	648087	8.00	8.00	
* 3 Acenaphthene-d10	164	9.150	9.145	0.005	92	427713	8.00	8.00	
* 4 Phenanthrene-d10	188	10.598	10.598	0.000	98	789588	8.00	8.00	
* 5 Chrysene-d12	240	14.375	14.380	-0.005	97	761247	8.00	8.00	
* 6 Perylene-d12	264	17.281	17.287	-0.006	97	619273	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.700	4.668	0.032	90	7740	0.4000	0.3714	
\$ 8 Phenol-d5	99	5.779	5.747	0.032	97	13270	0.4000	0.4296	
\$ 9 Nitrobenzene-d5	82	6.703	6.688	0.015	89	11449	0.4000	0.4088	
\$ 10 2-Fluorobiphenyl	172	8.477	8.472	0.005	99	32217	0.4000	0.4351	
\$ 11 2,4,6-Tribromophenol	330	9.909	9.909	0.000	85	2994	0.4000	0.3560	
\$ 12 Terphenyl-d14	244	12.532	12.537	-0.005	99	34821	0.4000	0.3982	
13 1,4-Dioxane	88	1.522	1.463	0.059	22	5811	0.4000	0.7799	
14 N-Nitrosodimethylamine	74	2.109	2.035	0.074	89	4274	0.4000	0.4136	M
15 Pyridine	79	2.237	2.109	0.128	15	5463	0.4000	0.2937	M
21 Methyl methanesulfonate	80	4.438	4.396	0.042	88	5656	0.4000	0.4470	
25 Benzaldehyde	77	5.662	5.641	0.021	94	7516	0.4000	0.4308	
26 Phenol	94	5.790	5.763	0.027	80	13665	0.4000	0.4029	
27 Aniline	93	5.790	5.763	0.027	70	15274	0.4000	0.3868	
29 Bis(2-chloroethyl)ether	93	5.859	5.838	0.021	92	10278	0.4000	0.4506	
30 2-Chlorophenol	128	5.924	5.897	0.027	97	10659	0.4000	0.4092	
31 n-Decane	43	5.982	5.961	0.021	93	12618	0.4000	0.4861	
32 1,3-Dichlorobenzene	146	6.078	6.057	0.021	97	14896	0.4000	0.4747	
33 1,4-Dichlorobenzene	146	6.159	6.137	0.022	92	14536	0.4000	0.4557	
34 Benzyl alcohol	108	6.287	6.266	0.021	87	3874	0.4000	0.2591	
35 1,2-Dichlorobenzene	146	6.319	6.298	0.021	94	14312	0.4000	0.4662	
37 Indene	116	6.410	6.389	0.022	89	19827	0.4000	0.4517	
36 2-Methylphenol	108	6.404	6.389	0.016	91	9134	0.4000	0.3911	
38 2,2'-oxybis[1-chloropropan	45	6.426	6.410	0.016	91	15456	0.4000	0.4470	
39 N-Nitrosopyrrolidine	100	6.517	6.501	0.015	88	4300	0.4000	0.3723	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.549	6.533	0.016	84	15831	0.4000	0.4373	
41 N-Nitrosodi-n-propylamine	70	6.549	6.533	0.016	77	7553	0.4000	0.4005	
42 4-Methylphenol	108	6.565	6.543	0.022	95	9746	0.4000	0.3888	
45 Hexachloroethane	117	6.666	6.650	0.016	92	5029	0.4000	0.4311	
46 Nitrobenzene	77	6.725	6.709	0.016	91	11476	0.4000	0.4085	
48 Isophorone	82	6.960	6.949	0.011	97	20077	0.4000	0.4066	
49 2-Nitrophenol	139	7.051	7.035	0.016	93	5099	0.4000	0.3543	
50 2,4-Dimethylphenol	107	7.088	7.078	0.010	95	10680	0.4000	0.3984	
52 Benzoic acid	122	7.126	7.136	-0.010	1	1233	0.4000	3.47	
53 Bis(2-chloroethoxy)methane	93	7.174	7.163	0.011	96	13614	0.4000	0.4481	
54 2,4-Dichlorophenol	162	7.291	7.281	0.010	94	9432	0.4000	0.3922	
56 1,2,4-Trichlorobenzene	180	7.377	7.366	0.011	94	13346	0.4000	0.4537	
58 Naphthalene	128	7.451	7.441	0.010	97	37772	0.4000	0.4360	
59 4-Chloroaniline	127	7.499	7.489	0.010	94	14449	0.4000	0.4142	
60 2,6-Dichlorophenol	162	7.510	7.505	0.005	96	10811	0.4000	0.4392	
62 Hexachlorobutadiene	225	7.580	7.569	0.011	92	7905	0.4000	0.4320	
64 Caprolactam	113	7.799	7.799	0.000	73	1726	0.4000	0.2507	
67 4-Chloro-3-methylphenol	107	7.964	7.959	0.005	92	8963	0.4000	0.3807	
69 2-Methylnaphthalene	142	8.130	8.125	0.005	92	26660	0.4000	0.4495	
71 1-Methylnaphthalene	142	8.231	8.221	0.010	93	26282	0.4000	0.4672	
72 Hexachlorocyclopentadiene	237	8.290	8.285	0.005	92	6008	0.4000	0.2971	
73 1,2,4,5-Tetrachlorobenzene	216	8.295	8.290	0.005	95	16063	0.4000	0.4757	
74 2,4,6-Trichlorophenol	196	8.402	8.397	0.005	89	7596	0.4000	0.3851	
75 2,4,5-Trichlorophenol	196	8.440	8.435	0.005	93	7134	0.4000	0.3451	
76 1,1'-Biphenyl	154	8.579	8.573	0.006	94	35548	0.4000	0.4471	
77 2-Chloronaphthalene	162	8.611	8.600	0.011	96	29395	0.4000	0.4327	
79 2-Nitroaniline	65	8.691	8.686	0.005	83	5469	0.4000	0.3429	
82 Dimethyl phthalate	163	8.851	8.846	0.005	99	28121	0.4000	0.4140	
83 1,3-Dinitrobenzene	168	8.888	8.883	0.005	85	3496	0.4000	0.3462	
84 2,6-Dinitrotoluene	165	8.915	8.915	0.000	91	5142	0.4000	0.3450	
85 Acenaphthylene	152	9.011	9.006	0.005	98	37165	0.4000	0.3820	
86 3-Nitroaniline	138	9.086	9.081	0.005	66	4631	0.4000	0.3135	
88 Acenaphthene	153	9.182	9.177	0.005	95	29910	0.4000	0.4687	
87 2,4-Dinitrophenol	184	9.193	9.182	0.011	57	1660	0.8000	3.62	
89 4-Nitrophenol	109	9.236	9.231	0.005	92	4197	0.8000	0.5829	
91 2,4-Dinitrotoluene	165	9.310	9.305	0.005	76	7005	0.4000	0.3594	
93 Dibenzofuran	168	9.343	9.343	0.000	97	40754	0.4000	0.4385	
96 2,3,4,6-Tetrachlorophenol	232	9.417	9.418	-0.001	67	6460	0.4000	0.3579	
95 2,3,5,6-Tetrachlorophenol	232	9.460	9.460	0.000	88	6192	0.4000	0.3452	
97 2-Naphthylamine	143	9.492	9.487	0.005	94	21365	0.4000	0.3628	
98 Diethyl phthalate	149	9.524	9.519	0.005	98	28483	0.4000	0.4419	
99 Hexadecane	57	9.530	9.524	0.006	95	17615	0.4000	0.4426	
100 4-Chlorophenyl phenyl ethe	204	9.658	9.658	0.000	88	17002	0.4000	0.4442	
101 4-Nitroaniline	138	9.674	9.674	0.000	52	4634	0.4000	0.3217	
103 Fluorene	166	9.674	9.674	0.000	94	31721	0.4000	0.4407	
104 4,6-Dinitro-2-methylphenol	198	9.706	9.706	0.000	84	4286	0.8000	0.3050	
105 N-Nitrosodiphenylamine	169	9.765	9.765	0.000	59	23461	0.4000	0.4202	
90 1,2-Diphenylhydrazine	77	9.813	9.808	0.005	41	26658	0.4000	0.3758	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.133	10.128	0.005	64	9285	0.4000	0.4137	
112 Hexachlorobenzene	284	10.219	10.219	0.000	92	9183	0.4000	0.4277	
113 Atrazine	200	10.256	10.256	0.000	91	8078	0.4000	0.3838	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.406	10.401	0.005	61	5147	0.8000	1.35	
115 n-Octadecane	57	10.406	10.406	0.000	96	15817	0.4000	0.3856	
121 Phenanthrene	178	10.625	10.625	0.000	95	49601	0.4000	0.4333	
122 Anthracene	178	10.678	10.678	0.000	96	43716	0.4000	0.3798	
124 Carbazole	167	10.833	10.833	0.000	95	40242	0.4000	0.4103	
126 Di-n-butyl phthalate	149	11.159	11.159	0.000	100	37509	0.4000	0.3399	
131 Fluoranthene	202	12.030	12.035	-0.005	96	48831	0.4000	0.4075	
132 Benzidine	184	12.174	12.179	-0.005	97	14958	0.4000	0.3037	
133 Pyrene	202	12.356	12.361	-0.005	97	51324	0.4000	0.4179	
138 Butyl benzyl phthalate	149	13.285	13.291	-0.006	96	14345	0.4000	0.3444	
144 3,3'-Dichlorobenzidine	252	14.284	14.290	-0.006	72	11412	0.4000	0.3429	
145 Bis(2-ethylhexyl) phthalat	149	14.338	14.343	-0.005	95	17398	0.4000	0.3037	
146 Benzo[a]anthracene	228	14.359	14.359	0.000	77	49008	0.4000	0.4361	
147 Chrysene	228	14.428	14.429	-0.001	97	45430	0.4000	0.4217	
150 Di-n-octyl phthalate	149	15.641	15.647	-0.006	69	29427	0.4000	0.2987	M
151 7,12-Dimethylbenz(a)anthra	256	16.480	16.485	-0.005	92	17305	0.4000	0.3749	
152 Benzo[b]fluoranthene	252	16.501	16.507	-0.006	95	41026	0.4000	0.4040	
153 Benzo[k]fluoranthene	252	16.560	16.565	-0.005	97	39232	0.4000	0.3852	
219 Benzo[e]pyrene	252	17.062	17.068	-0.006	0	38964	0.4000	0.4222	
154 Benzo[a]pyrene	252	17.169	17.174	-0.005	80	37041	0.4000	0.4036	
157 Indeno[1,2,3-cd]pyrene	276	19.658	19.664	-0.006	82	37040	0.4000	0.3831	M
158 Dibenz(a,h)anthracene	278	19.690	19.691	-0.001	90	30691	0.4000	0.3733	M
159 Benzo[g,h,i]perylene	276	20.337	20.348	-0.011	57	33298	0.4000	0.4062	M
S 197 Methyl Phenols, Total	108				0		0.8000	0.7799	
S 199 Total Cresols	108				0		0.8000	0.7799	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD0.4i\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D

Injection Date: 28-Jul-2014 04:52:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 3

Client ID:

Injection Vol: 2.0 ul

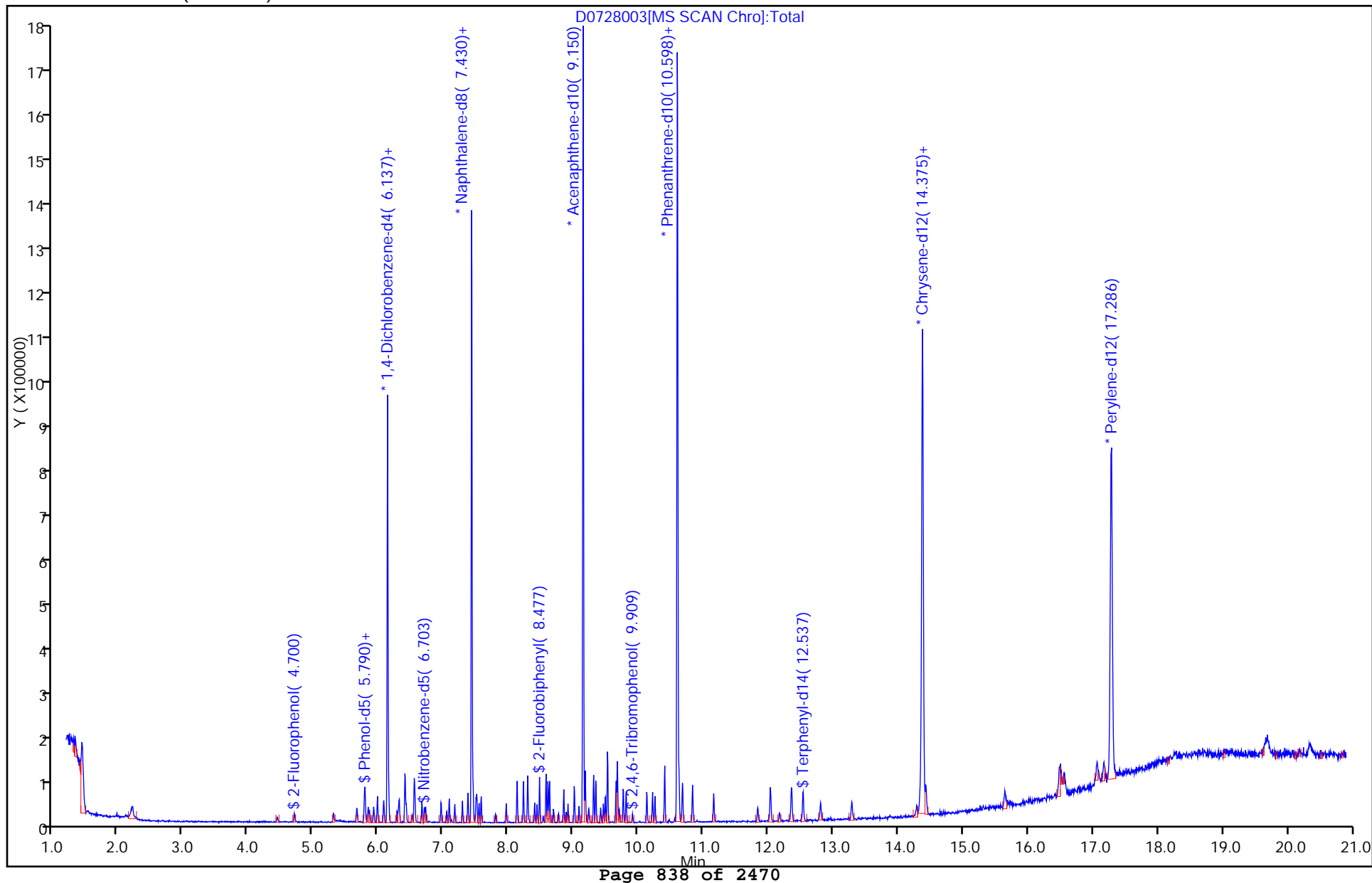
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



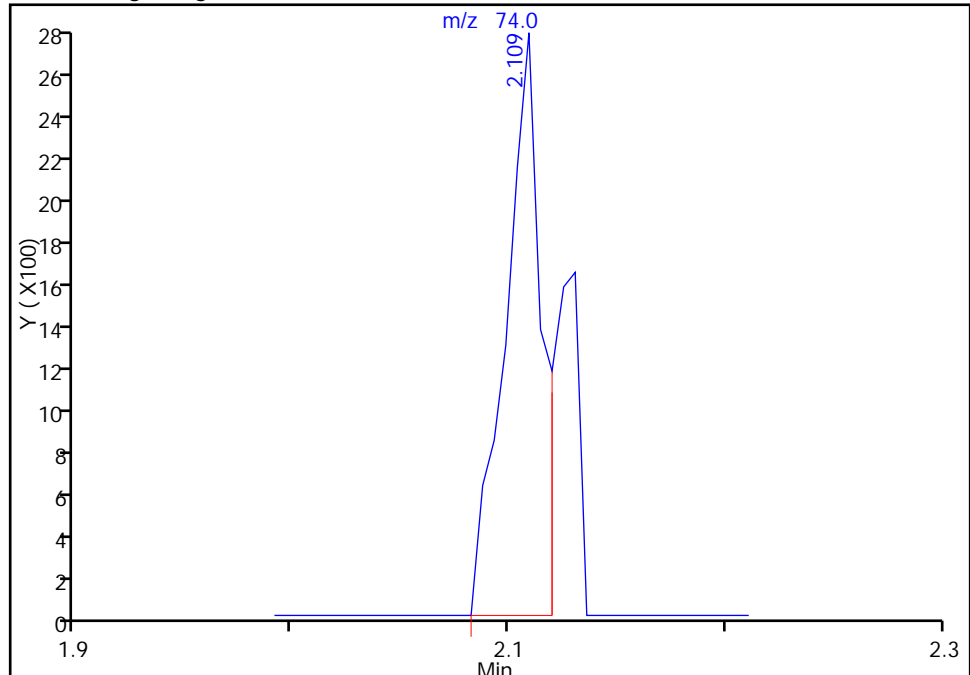
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D  
Injection Date: 28-Jul-2014 04:52:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 14 N-Nitrosodimethylamine, CAS: 62-75-9

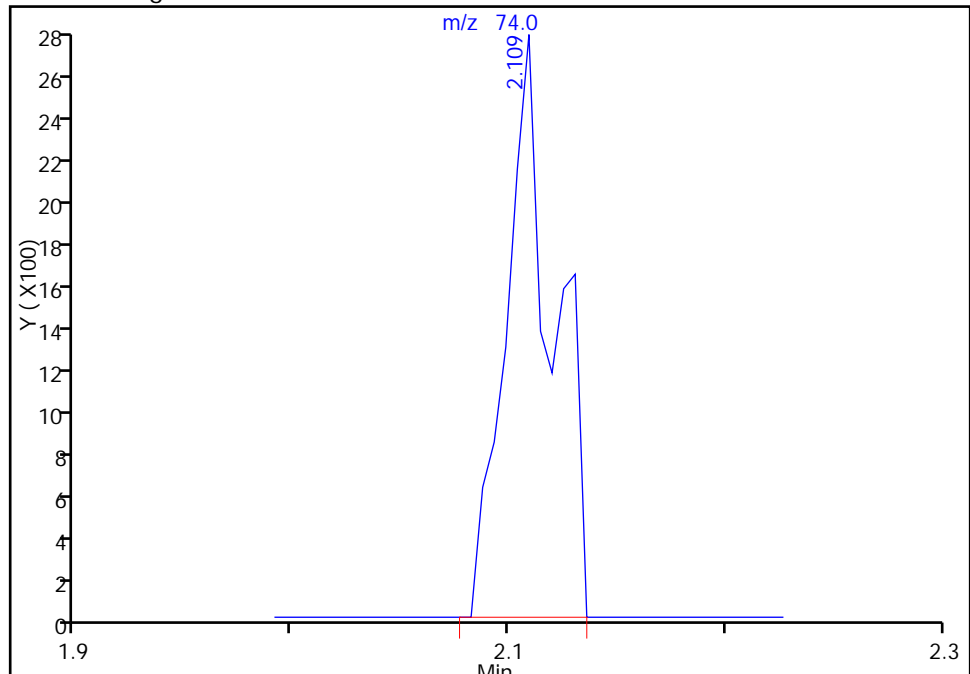
RT: 2.11  
Response: 3252  
Amount: 0.327488

## Processing Integration Results



RT: 2.11  
Response: 4274  
Amount: 0.413616

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D

Injection Date: 28-Jul-2014 04:52:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

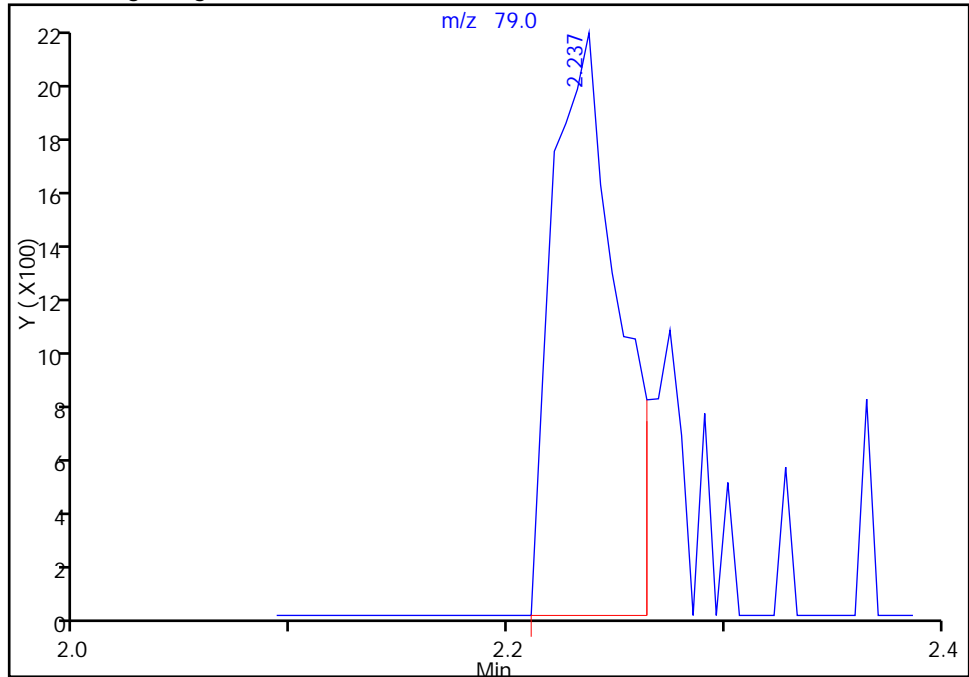
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 15 Pyridine, CAS: 110-86-1

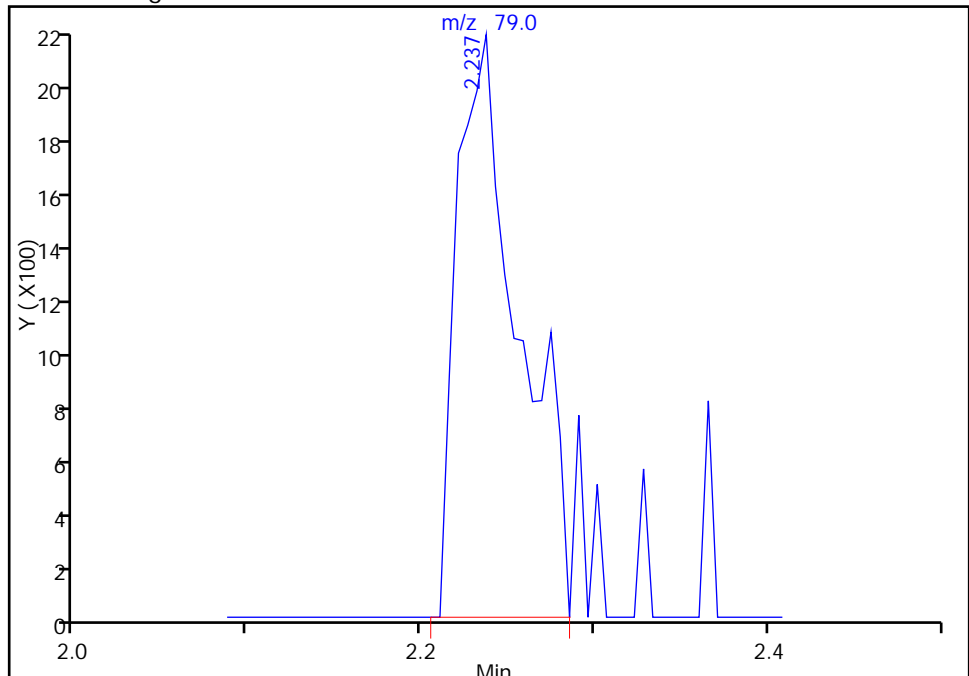
RT: 2.24  
Response: 4641  
Amount: 0.408928

## Processing Integration Results



RT: 2.24  
Response: 5463  
Amount: 0.293743

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

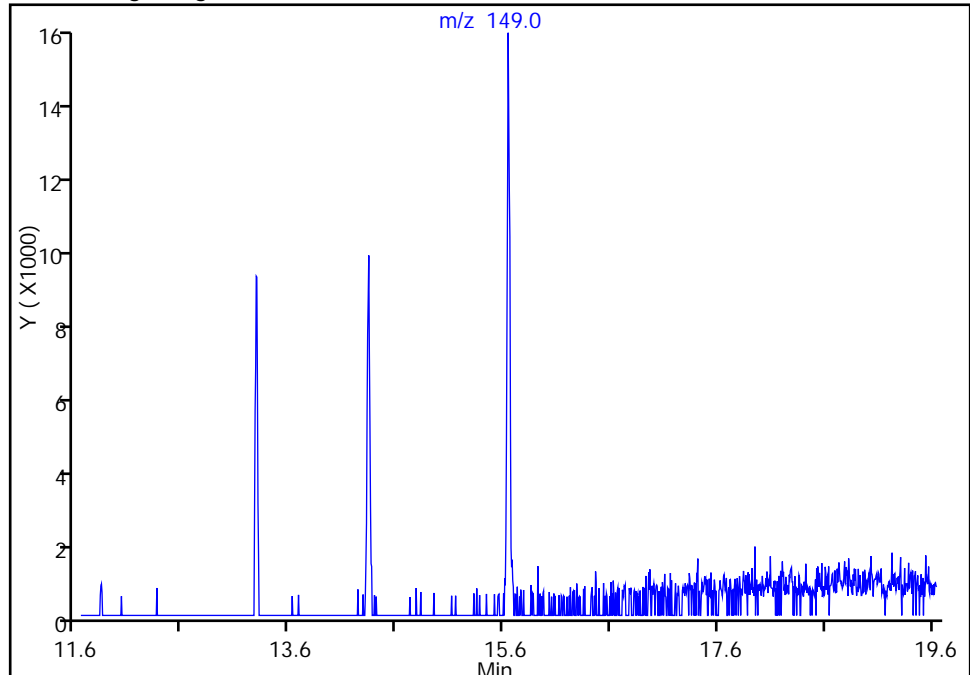
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D  
Injection Date: 28-Jul-2014 04:52:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 150 Di-n-octyl phthalate, CAS: 117-84-0

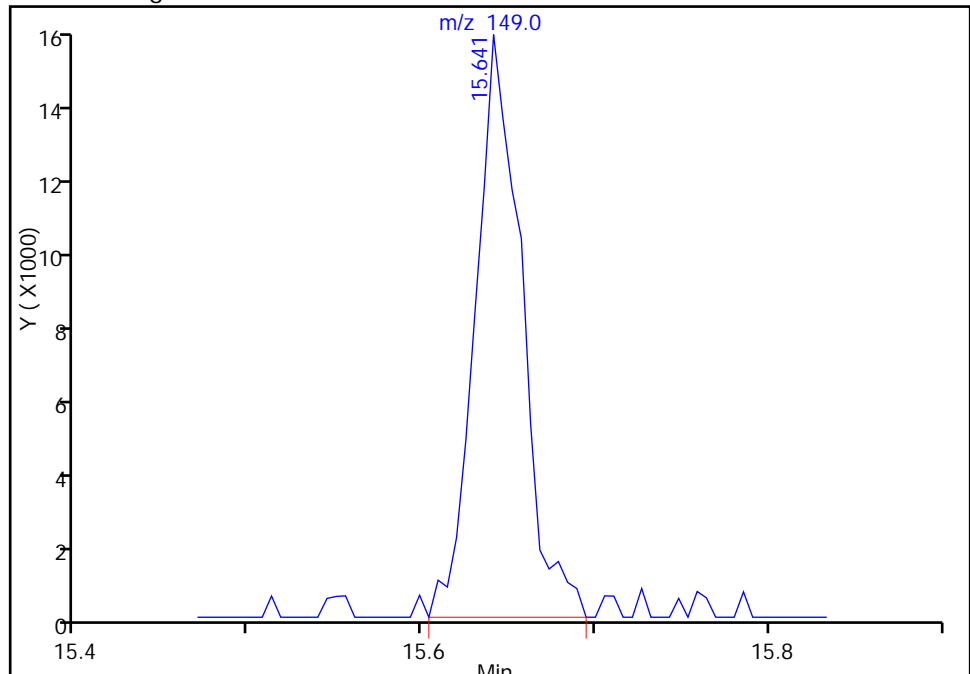
Not Detected  
Expected RT: 15.65

## Processing Integration Results



RT: 15.64  
Response: 29427  
Amount: 0.298683

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D

Injection Date: 28-Jul-2014 04:52:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

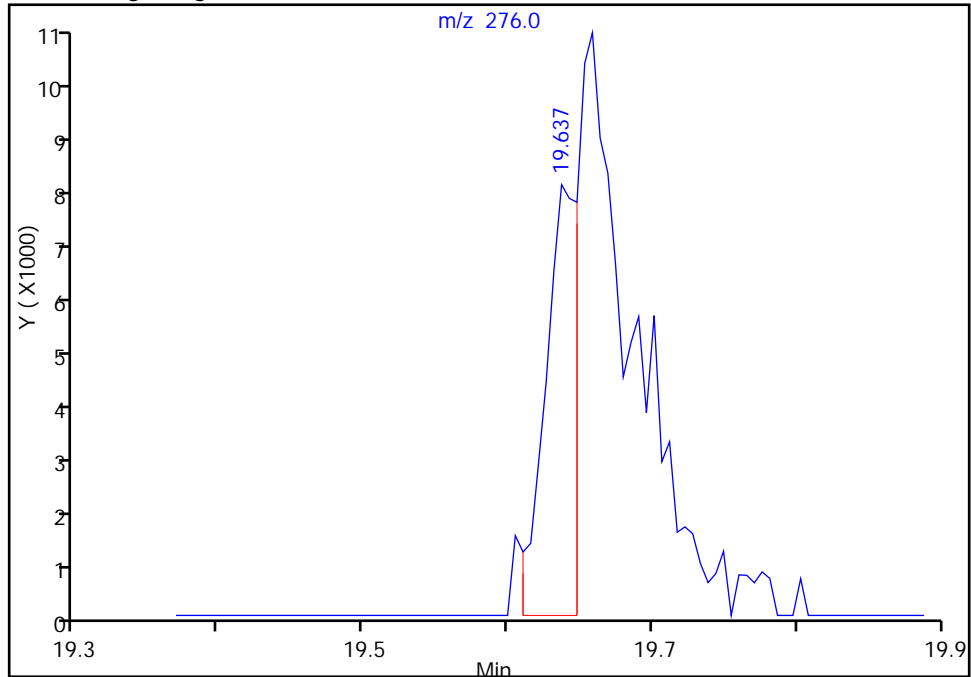
Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

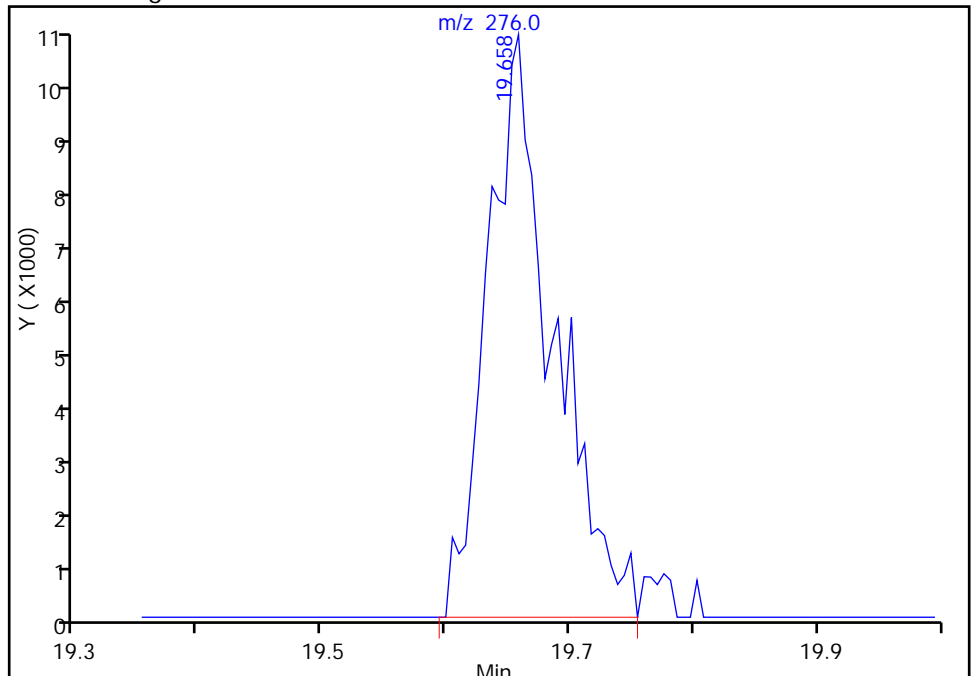
Detector: MS SCAN

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

## Processing Integration Results

RT: 19.64  
Response: 11761  
Amount: 0.400311RT: 19.66  
Response: 37040  
Amount: 0.383087

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D

Injection Date: 28-Jul-2014 04:52:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

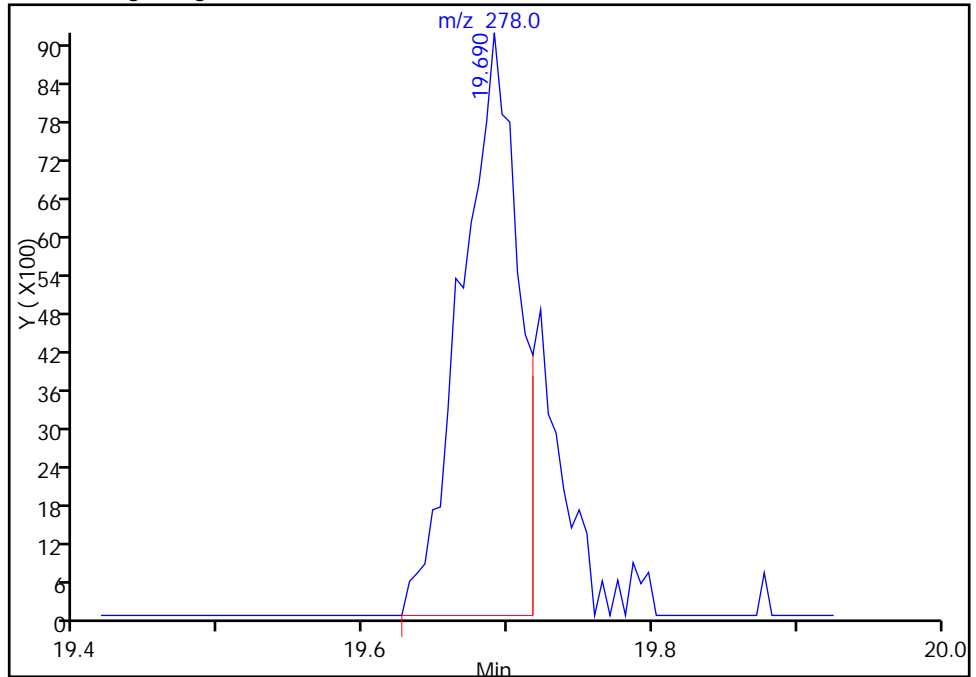
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 158 Dibenz(a,h)anthracene, CAS: 53-70-3

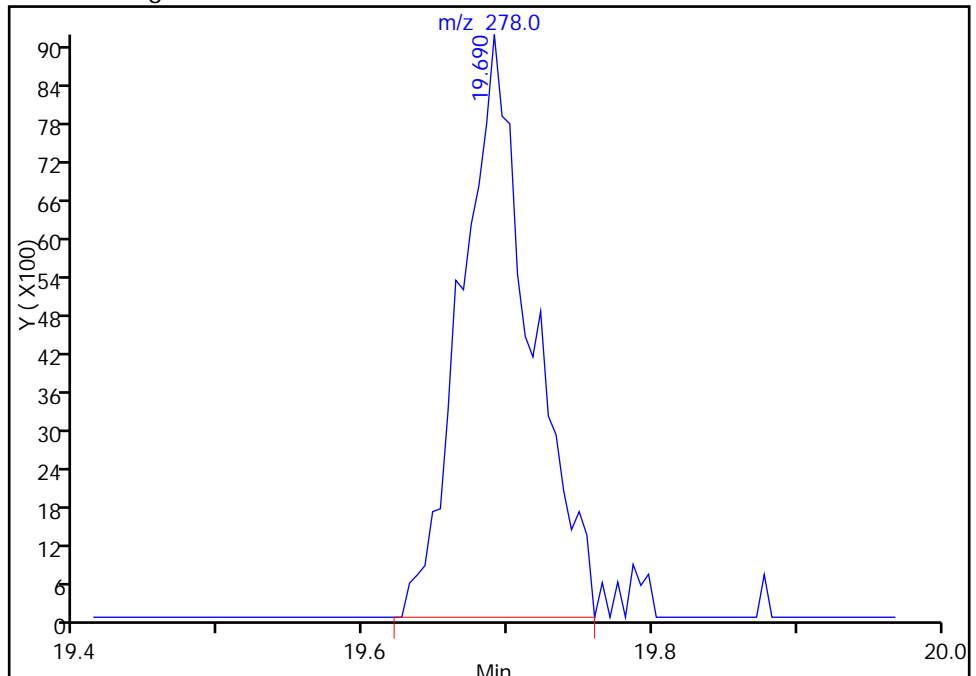
RT: 19.69  
Response: 25190  
Amount: 0.333355

## Processing Integration Results



RT: 19.69  
Response: 30691  
Amount: 0.373326

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728003.D

Injection Date: 28-Jul-2014 04:52:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 2

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

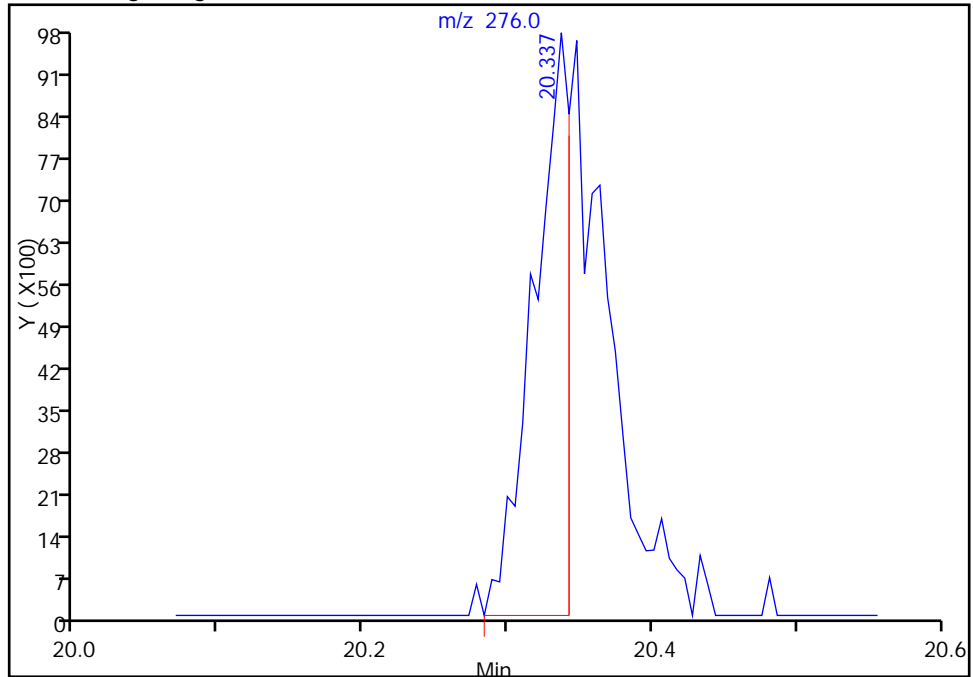
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 159 Benzo[g,h,i]perylene, CAS: 191-24-2

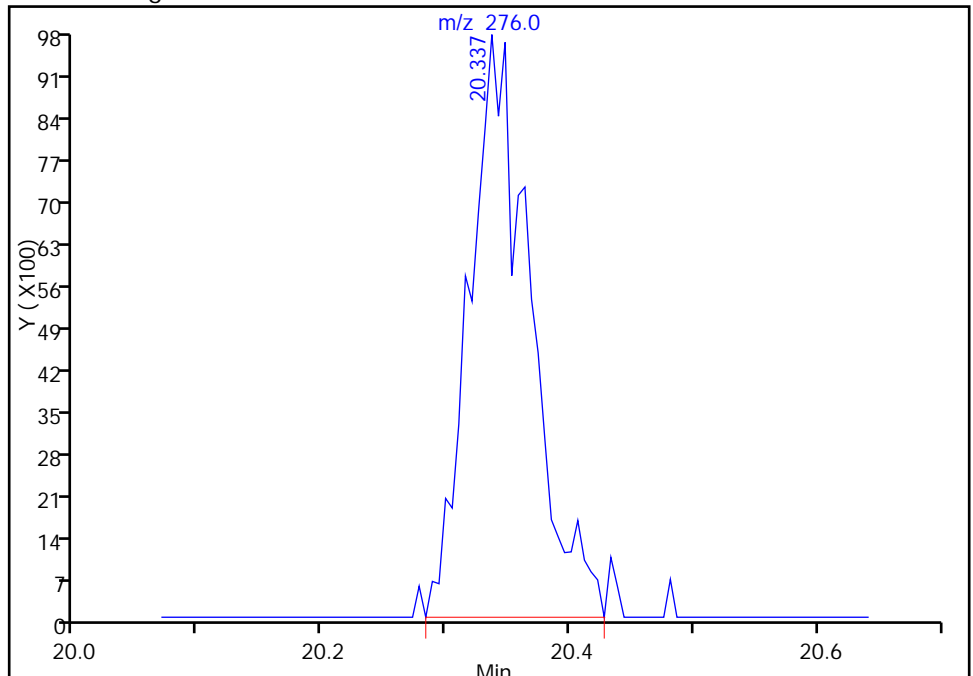
RT: 20.34  
Response: 16799  
Amount: 0.250240

## Processing Integration Results



RT: 20.34  
Response: 33298  
Amount: 0.406155

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:19:24

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728004.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 28-Jul-2014 05:18:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-004  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:07 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:22:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.127	6.116	0.011	96	158274	8.00	8.00	
* 2 Naphthalene-d8	136	7.425	7.420	0.005	99	657684	8.00	8.00	
* 3 Acenaphthene-d10	164	9.145	9.145	0.000	92	432042	8.00	8.00	
* 4 Phenanthrene-d10	188	10.593	10.598	-0.005	98	789211	8.00	8.00	
* 5 Chrysene-d12	240	14.370	14.380	-0.010	97	762468	8.00	8.00	
* 6 Perylene-d12	264	17.276	17.287	-0.011	97	604609	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.689	4.668	0.021	92	38778	2.00	1.86	
\$ 8 Phenol-d5	99	5.763	5.747	0.016	98	60451	2.00	1.95	
\$ 9 Nitrobenzene-d5	82	6.698	6.688	0.010	89	57079	2.00	2.01	
\$ 10 2-Fluorobiphenyl	172	8.472	8.472	0.000	99	144761	2.00	1.94	
\$ 11 2,4,6-Tribromophenol	330	9.903	9.909	-0.006	92	15475	2.00	1.84	
\$ 12 Terphenyl-d14	244	12.532	12.537	-0.005	99	169977	2.00	1.94	
13 1,4-Dioxane	88	1.500	1.463	0.037	92	14757	2.00	1.98	
14 N-Nitrosodimethylamine	74	2.088	2.035	0.053	90	19014	2.00	1.84	
15 Pyridine	79	2.168	2.109	0.059	94	37225	2.00	2.00	M
21 Methyl methanesulfonate	80	4.417	4.396	0.021	85	24285	2.00	1.92	
25 Benzaldehyde	77	5.656	5.641	0.015	95	37029	2.00	2.12	
26 Phenol	94	5.774	5.763	0.011	84	68396	2.00	2.01	
27 Aniline	93	5.774	5.763	0.011	76	78750	2.00	1.99	
29 Bis(2-chloroethyl)ether	93	5.849	5.838	0.011	94	46172	2.00	2.02	
30 2-Chlorophenol	128	5.913	5.897	0.016	97	50274	2.00	1.93	
31 n-Decane	43	5.972	5.961	0.011	89	51144	2.00	1.97	
32 1,3-Dichlorobenzene	146	6.068	6.057	0.011	98	59927	2.00	1.91	
33 1,4-Dichlorobenzene	146	6.148	6.137	0.011	96	62151	2.00	1.95	
34 Benzyl alcohol	108	6.276	6.266	0.010	93	28885	2.00	1.93	
35 1,2-Dichlorobenzene	146	6.308	6.298	0.010	95	60706	2.00	1.97	
37 Indene	116	6.399	6.389	0.011	87	85271	2.00	1.94	
36 2-Methylphenol	108	6.394	6.389	0.006	74	46427	2.00	1.98	
38 2,2'-oxybis[1-chloropropan	45	6.415	6.410	0.005	91	69310	2.00	2.00	
39 N-Nitrosopyrrolidine	100	6.506	6.501	0.005	89	22452	2.00	1.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.538	6.533	0.005	91	73809	2.00	2.04	
41 N-Nitrosodi-n-propylamine	70	6.538	6.533	0.005	75	38893	2.00	2.06	
42 4-Methylphenol	108	6.554	6.543	0.011	95	48474	2.00	1.93	
45 Hexachloroethane	117	6.655	6.650	0.005	90	23334	2.00	2.00	
46 Nitrobenzene	77	6.714	6.709	0.005	88	56306	2.00	1.97	
48 Isophorone	82	6.955	6.949	0.006	100	97983	2.00	1.96	
49 2-Nitrophenol	139	7.040	7.035	0.005	96	26930	2.00	1.84	
50 2,4-Dimethylphenol	107	7.077	7.078	-0.001	96	55027	2.00	2.02	
52 Benzoic acid	122	7.120	7.136	-0.016	88	10266	2.00	4.07	
53 Bis(2-chloroethoxy)methane	93	7.168	7.163	0.005	99	62252	2.00	2.02	
54 2,4-Dichlorophenol	162	7.280	7.281	-0.001	93	46250	2.00	1.90	
56 1,2,4-Trichlorobenzene	180	7.371	7.366	0.005	92	59967	2.00	2.01	
58 Naphthalene	128	7.446	7.441	0.005	98	170415	2.00	1.94	
59 4-Chloroaniline	127	7.494	7.489	0.005	96	70891	2.00	2.00	
60 2,6-Dichlorophenol	162	7.505	7.505	0.000	98	48314	2.00	1.93	
62 Hexachlorobutadiene	225	7.574	7.569	0.005	91	39274	2.00	2.12	
64 Caprolactam	113	7.793	7.799	-0.006	79	11480	2.00	1.64	
67 4-Chloro-3-methylphenol	107	7.959	7.959	0.000	96	46689	2.00	1.95	
69 2-Methylnaphthalene	142	8.125	8.125	0.000	93	122937	2.00	2.04	
71 1-Methylnaphthalene	142	8.221	8.221	0.000	92	114894	2.00	2.01	
72 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	96	33687	2.00	1.65	
73 1,2,4,5-Tetrachlorobenzene	216	8.290	8.290	0.000	96	67933	2.00	1.99	
74 2,4,6-Trichlorophenol	196	8.397	8.397	0.000	91	36731	2.00	1.84	
75 2,4,5-Trichlorophenol	196	8.434	8.435	-0.001	96	40142	2.00	1.92	
76 1,1'-Biphenyl	154	8.573	8.573	0.000	96	158831	2.00	1.98	
77 2-Chloronaphthalene	162	8.600	8.600	0.000	94	136601	2.00	1.99	
79 2-Nitroaniline	65	8.691	8.686	0.005	82	30265	2.00	1.88	
82 Dimethyl phthalate	163	8.846	8.846	0.000	99	136907	2.00	2.00	
83 1,3-Dinitrobenzene	168	8.883	8.883	0.000	87	18586	2.00	1.82	
84 2,6-Dinitrotoluene	165	8.910	8.915	-0.005	94	29173	2.00	1.94	
85 Acenaphthylene	152	9.006	9.006	0.000	98	186661	2.00	1.90	
86 3-Nitroaniline	138	9.081	9.081	0.000	96	28545	2.00	1.91	
88 Acenaphthene	153	9.177	9.177	0.000	95	124232	2.00	1.93	
87 2,4-Dinitrophenol	184	9.182	9.182	0.000	82	16574	4.00	4.99	
89 4-Nitrophenol	109	9.230	9.231	-0.001	94	26361	4.00	3.62	
91 2,4-Dinitrotoluene	165	9.305	9.305	0.000	95	37377	2.00	1.90	
93 Dibenzofuran	168	9.337	9.343	-0.006	98	186647	2.00	1.99	
96 2,3,4,6-Tetrachlorophenol	232	9.417	9.418	-0.001	69	33787	2.00	1.85	
95 2,3,5,6-Tetrachlorophenol	232	9.455	9.460	-0.005	91	33135	2.00	1.83	
97 2-Naphthylamine	143	9.487	9.487	0.000	97	119988	2.00	2.02	
98 Diethyl phthalate	149	9.519	9.519	0.000	98	130655	2.00	2.01	
99 Hexadecane	57	9.524	9.524	0.000	96	82401	2.00	2.04	
100 4-Chlorophenyl phenyl ether	204	9.652	9.658	-0.006	86	74724	2.00	1.93	
101 4-Nitroaniline	138	9.668	9.674	-0.006	82	26792	2.00	1.84	
103 Fluorene	166	9.674	9.674	0.000	98	144230	2.00	1.98	
104 4,6-Dinitro-2-methylphenol	198	9.700	9.706	-0.006	87	34548	4.00	2.46	
105 N-Nitrosodiphenylamine	169	9.759	9.765	-0.006	63	107845	2.00	1.93	
90 1,2-Diphenylhydrazine	77	9.807	9.808	-0.001	41	133604	2.00	1.88	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.128	10.128	0.000	64	44313	2.00	1.98	
112 Hexachlorobenzene	284	10.213	10.219	-0.006	95	42454	2.00	1.98	
113 Atrazine	200	10.251	10.256	-0.005	95	40206	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.395	10.401	-0.006	93	28368	4.00	3.02	
115 n-Octadecane	57	10.400	10.406	-0.006	96	83522	2.00	2.03	
121 Phenanthrene	178	10.619	10.625	-0.006	97	223303	2.00	1.95	
122 Anthracene	178	10.673	10.678	-0.005	96	221252	2.00	1.92	
124 Carbazole	167	10.828	10.833	-0.005	96	186796	2.00	1.91	
126 Di-n-butyl phthalate	149	11.154	11.159	-0.005	100	201700	2.00	1.83	
131 Fluoranthene	202	12.030	12.035	-0.005	98	227954	2.00	1.90	
132 Benzidine	184	12.169	12.179	-0.010	99	86171	2.00	1.75	
133 Pyrene	202	12.356	12.361	-0.005	97	236484	2.00	1.92	
138 Butyl benzyl phthalate	149	13.280	13.291	-0.011	98	74703	2.00	1.79	
144 3,3'-Dichlorobenzidine	252	14.279	14.290	-0.011	73	56939	2.00	1.71	
145 Bis(2-ethylhexyl) phthalat	149	14.327	14.343	-0.016	95	96732	2.00	1.69	
146 Benzo[a]anthracene	228	14.348	14.359	-0.011	98	219759	2.00	1.95	
147 Chrysene	228	14.418	14.429	-0.011	97	213072	2.00	1.97	
150 Di-n-octyl phthalate	149	15.641	15.647	-0.006	99	139183	2.00	1.45	
151 7,12-Dimethylbenz(a)anthra	256	16.480	16.485	-0.005	92	83765	2.00	1.86	
152 Benzo[b]fluoranthene	252	16.496	16.507	-0.011	97	178373	2.00	1.80	
153 Benzo[k]fluoranthene	252	16.549	16.565	-0.016	98	194593	2.00	1.96	
219 Benzo[e]pyrene	252	17.057	17.068	-0.011	0	167309	2.00	1.86	
154 Benzo[a]pyrene	252	17.164	17.174	-0.010	78	163652	2.00	1.83	
157 Indeno[1,2,3-cd]pyrene	276	19.653	19.664	-0.011	97	174944	2.00	1.85	M
158 Dibenz(a,h)anthracene	278	19.685	19.691	-0.006	90	149028	2.00	1.86	M
159 Benzo[g,h,i]perylene	276	20.337	20.348	-0.011	97	148683	2.00	1.86	M
S 197 Methyl Phenols, Total	108				0		4.00	3.92	
S 199 Total Cresols	108				0		4.00	3.92	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD2.0i\_00005

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728004.D

Injection Date: 28-Jul-2014 05:18:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 4

Client ID:

Injection Vol: 2.0 ul

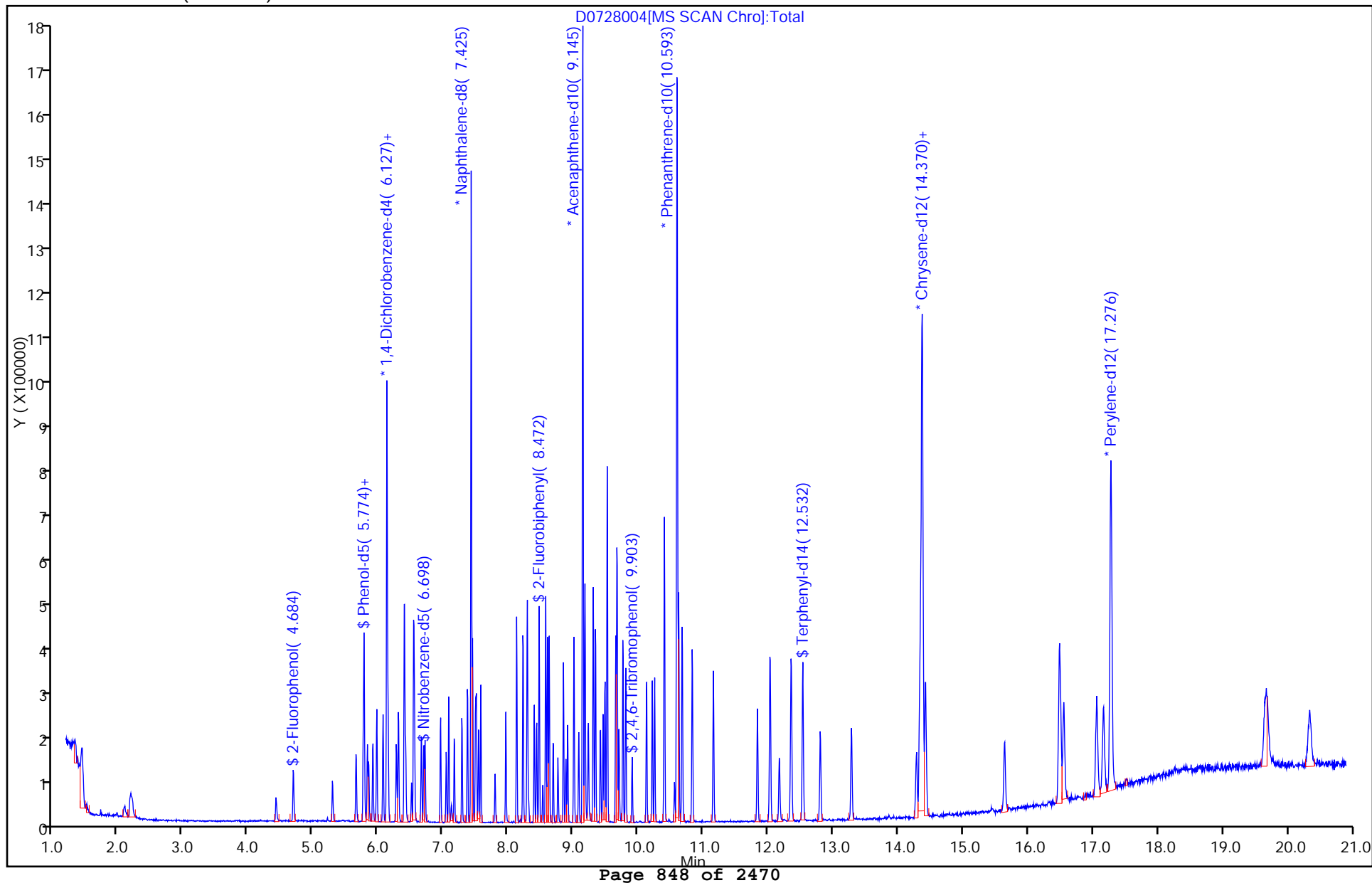
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

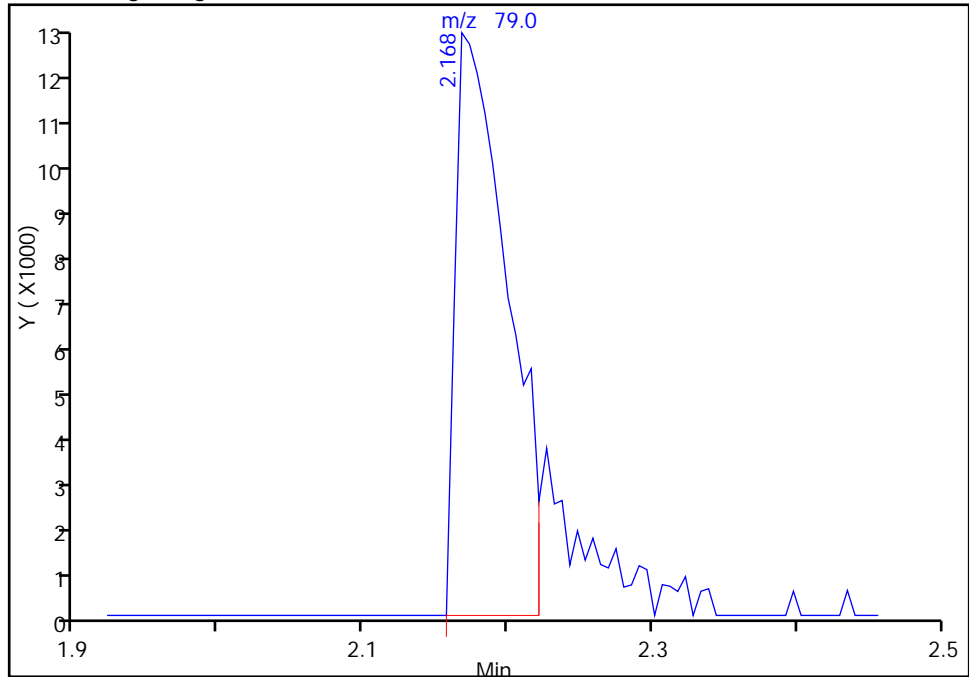
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Injection Date: 28-Jul-2014 05:18:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 3  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

Worklist Smp#: 4

## 15 Pyridine, CAS: 110-86-1

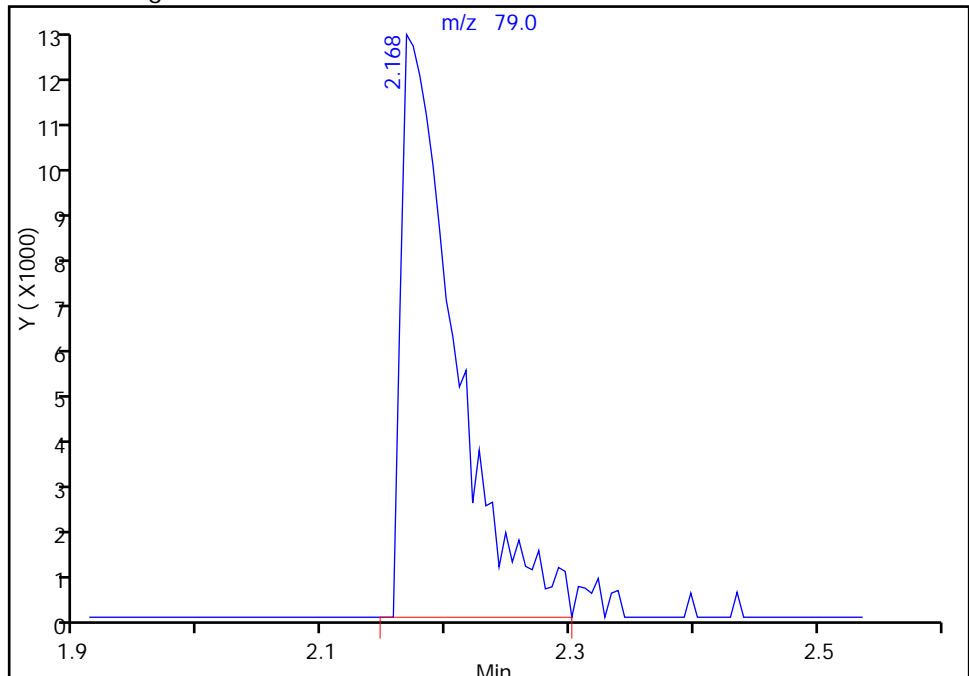
RT: 2.17  
Response: 30611  
Amount: 1.708779

## Processing Integration Results



RT: 2.17  
Response: 37225  
Amount: 1.998255

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:22:00  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728004.D

Injection Date: 28-Jul-2014 05:18:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 3

Worklist Smp#: 4

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

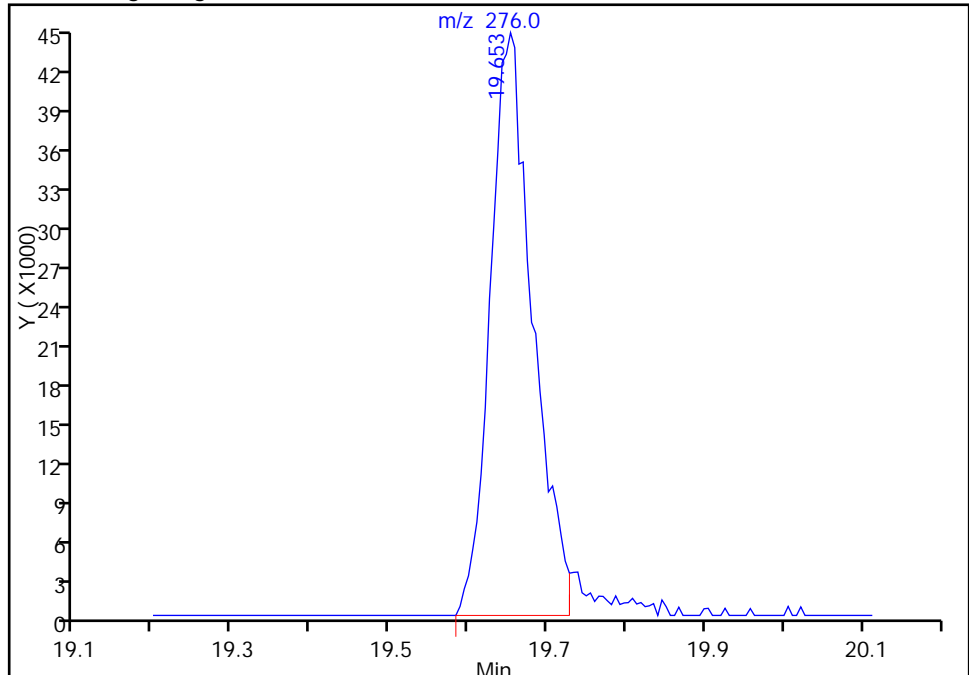
Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

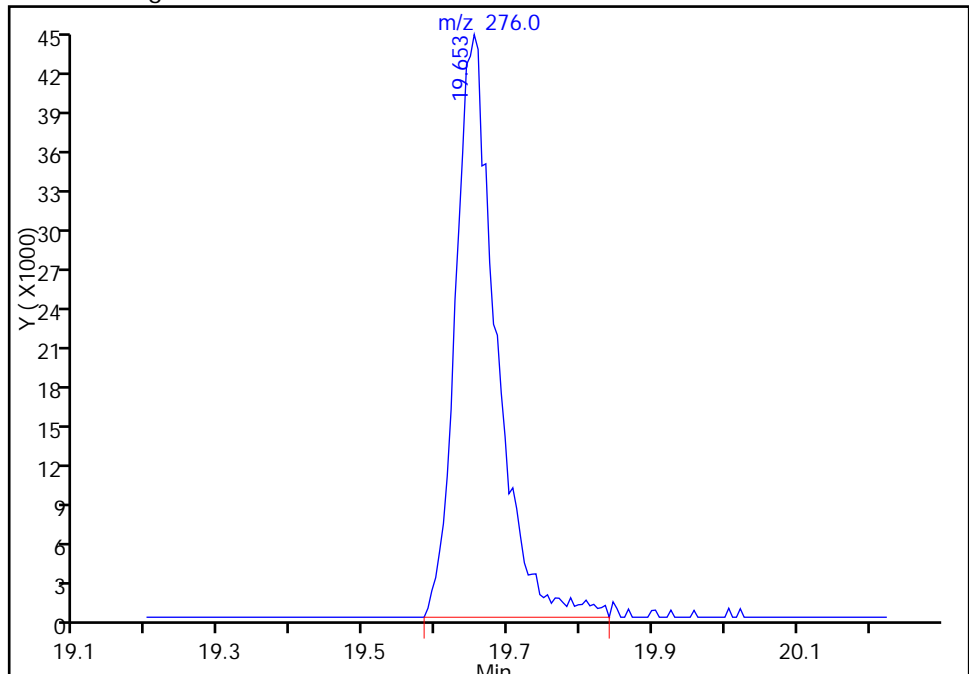
Detector: MS SCAN

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

## Processing Integration Results

RT: 19.65  
Response: 166240  
Amount: 1.846984

## Manual Integration Results

RT: 19.65  
Response: 174944  
Amount: 1.853247

Reviewer: piccolinov, 28-Jul-2014 08:22:00

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



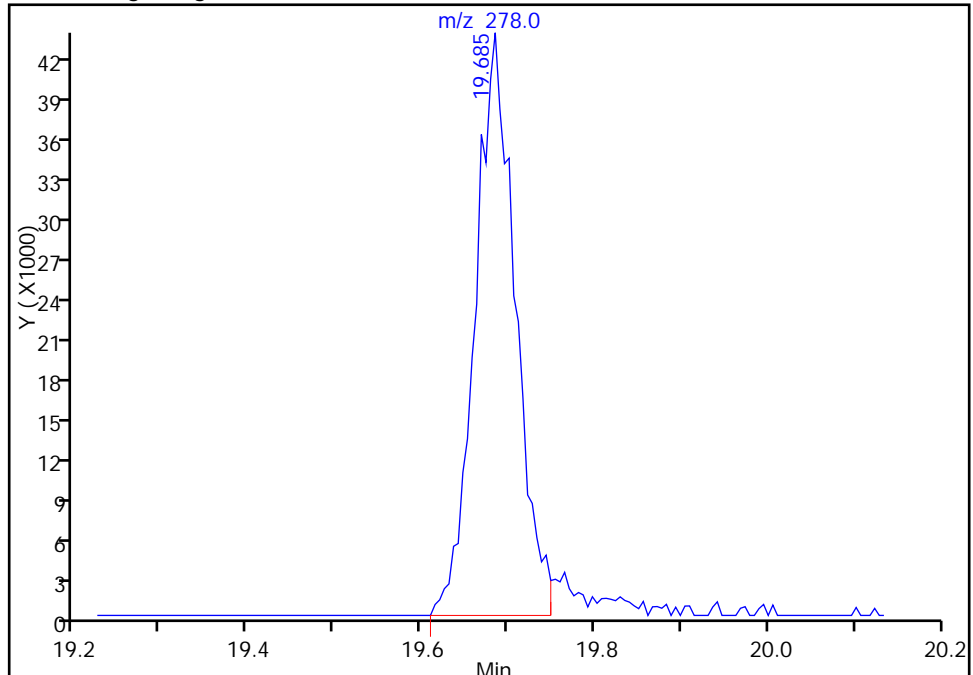
## TestAmerica Pittsburgh

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Injection Date: 28-Jul-2014 05:18:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 3 Worklist Smp#: 4  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 158 Dibenz(a,h)anthracene, CAS: 53-70-3

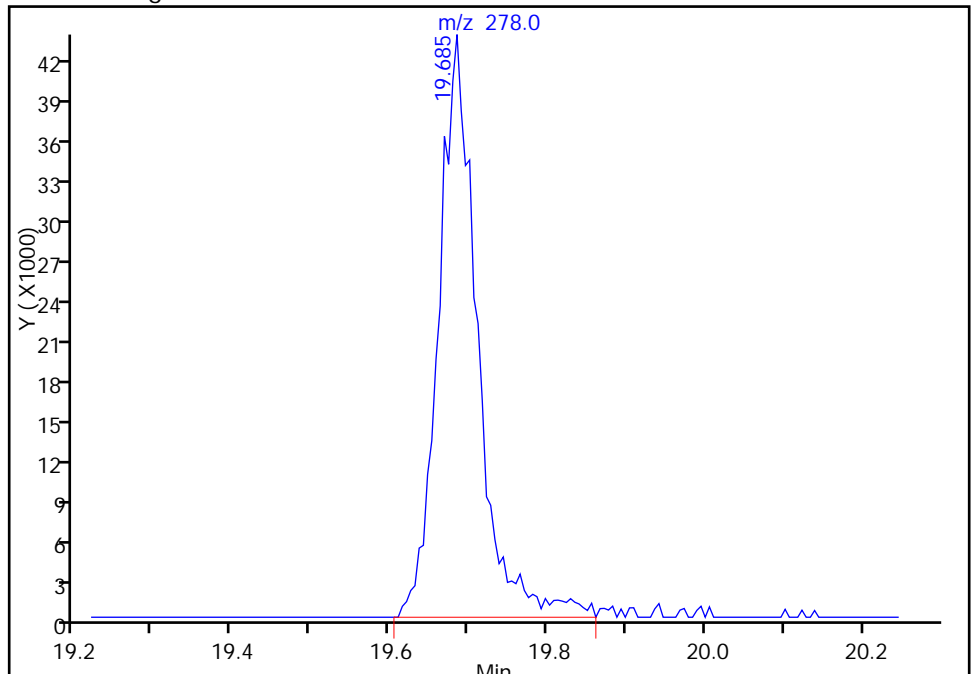
RT: 19.69  
Response: 139878  
Amount: 1.840173

## Processing Integration Results



RT: 19.69  
Response: 149028  
Amount: 1.856747

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:22:00  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

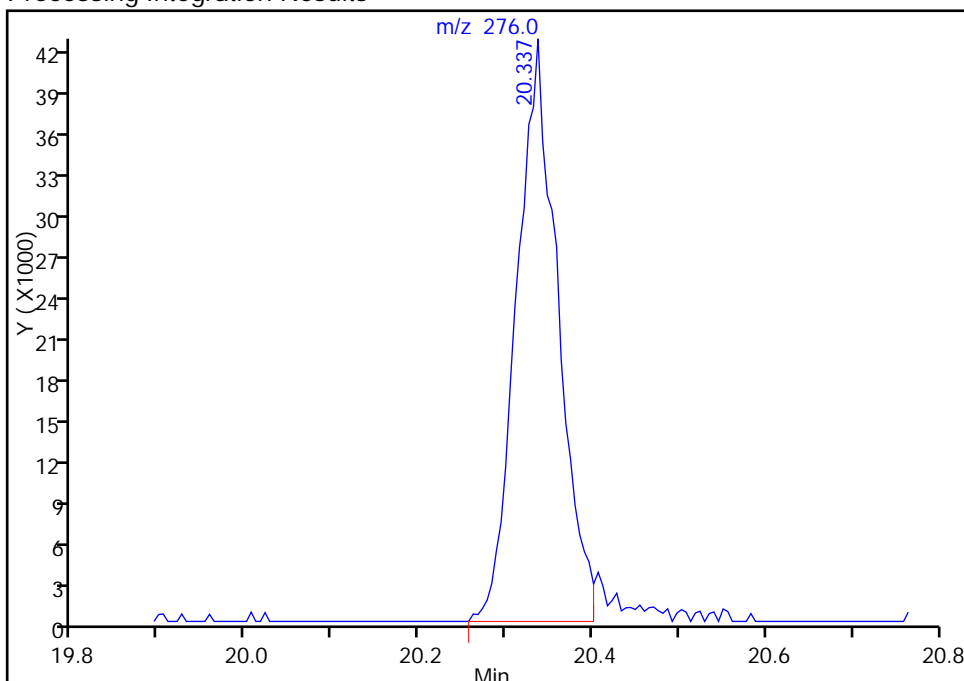
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Injection Date: 28-Jul-2014 05:18:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 3  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

Worklist Smp#: 4

## 159 Benzo[g,h,i]perylene, CAS: 191-24-2

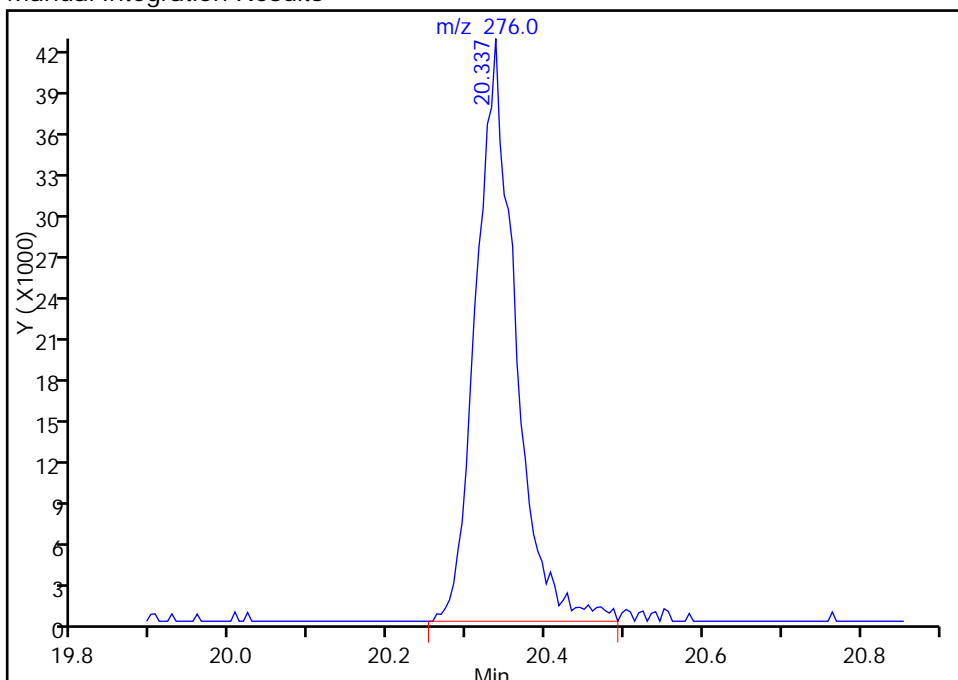
RT: 20.34  
Response: 141969  
Amount: 1.964871

## Processing Integration Results



RT: 20.34  
Response: 148683  
Amount: 1.857561

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:22:00  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 28-Jul-2014 05:44:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-005  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:09 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 04-Aug-2014 06:12:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.121	6.116	0.005	96	150413	8.00	8.00	
* 2 Naphthalene-d8	136	7.419	7.420	-0.001	99	647767	8.00	8.00	
* 3 Acenaphthene-d10	164	9.145	9.145	0.000	92	428764	8.00	8.00	
* 4 Phenanthrene-d10	188	10.598	10.598	0.000	97	751801	8.00	8.00	
* 5 Chrysene-d12	240	14.380	14.380	0.000	97	730270	8.00	8.00	
* 6 Perylene-d12	264	17.292	17.287	0.005	97	553042	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.668	4.668	0.000	95	76681	4.00	3.87	
\$ 8 Phenol-d5	99	5.753	5.747	0.006	98	115883	4.00	3.94	
\$ 9 Nitrobenzene-d5	82	6.688	6.688	0.000	89	109611	4.00	3.92	
\$ 10 2-Fluorobiphenyl	172	8.472	8.472	0.000	99	273776	4.00	3.69	
\$ 11 2,4,6-Tribromophenol	330	9.909	9.909	0.000	92	29723	4.00	3.71	
\$ 12 Terphenyl-d14	244	12.537	12.537	0.000	99	327257	4.00	3.90	
13 1,4-Dioxane	88	1.463	1.463	0.000	95	34637	4.00	4.88	M
14 N-Nitrosodimethylamine	74	2.045	2.035	0.010	93	39270	4.00	3.99	
15 Pyridine	79	2.125	2.109	0.016	94	70623	4.00	3.99	
21 Methyl methanesulfonate	80	4.401	4.396	0.005	87	47816	4.00	3.97	
25 Benzaldehyde	77	5.640	5.641	-0.001	93	71331	4.00	4.29	
26 Phenol	94	5.769	5.763	0.006	83	129488	4.00	4.01	
27 Aniline	93	5.769	5.763	0.006	74	150734	4.00	4.01	
29 Bis(2-chloroethyl)ether	93	5.838	5.838	0.000	93	86631	4.00	3.99	
30 2-Chlorophenol	128	5.902	5.897	0.005	97	95998	4.00	3.87	
31 n-Decane	43	5.966	5.961	0.005	89	97277	4.00	3.94	
32 1,3-Dichlorobenzene	146	6.063	6.057	0.006	98	118574	4.00	3.97	
33 1,4-Dichlorobenzene	146	6.137	6.137	0.000	95	119827	4.00	3.95	
34 Benzyl alcohol	108	6.266	6.266	0.000	92	58323	4.00	4.10	
35 1,2-Dichlorobenzene	146	6.298	6.298	0.000	97	116442	4.00	3.98	
37 Indene	116	6.388	6.389	0.000	88	166798	4.00	3.99	
36 2-Methylphenol	108	6.388	6.389	0.000	72	88623	4.00	3.99	
38 2,2'-oxybis[1-chloropropan	45	6.410	6.410	0.000	93	134784	4.00	4.09	
39 N-Nitrosopyrrolidine	100	6.501	6.501	0.000	89	45559	4.00	4.14	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.533	6.533	0.000	96	139424	4.00	4.05	
41 N-Nitrosodi-n-propylamine	70	6.533	6.533	0.000	86	76436	4.00	4.26	
42 4-Methylphenol	108	6.549	6.543	0.006	95	98098	4.00	4.11	
45 Hexachloroethane	117	6.650	6.650	0.000	93	45479	4.00	4.10	
46 Nitrobenzene	77	6.709	6.709	0.000	88	111076	4.00	3.96	
48 Isophorone	82	6.949	6.949	0.000	99	189921	4.00	3.85	
49 2-Nitrophenol	139	7.035	7.035	0.000	96	56035	4.00	3.90	
50 2,4-Dimethylphenol	107	7.078	7.078	0.000	95	103561	4.00	3.86	
52 Benzoic acid	122	7.126	7.136	-0.010	91	19948	4.00	4.73	M
53 Bis(2-chloroethoxy)methane	93	7.163	7.163	0.000	98	119631	4.00	3.94	
54 2,4-Dichlorophenol	162	7.281	7.281	0.000	93	95007	4.00	3.95	
56 1,2,4-Trichlorobenzene	180	7.366	7.366	0.000	92	115482	4.00	3.93	
58 Naphthalene	128	7.441	7.441	0.000	98	331254	4.00	3.83	
59 4-Chloroaniline	127	7.489	7.489	0.000	96	133667	4.00	3.83	
60 2,6-Dichlorophenol	162	7.505	7.505	0.000	98	97088	4.00	3.95	
62 Hexachlorobutadiene	225	7.569	7.569	0.000	91	71053	4.00	3.89	
64 Caprolactam	113	7.793	7.799	-0.006	79	24097	4.00	3.50	
67 4-Chloro-3-methylphenol	107	7.959	7.959	0.000	95	88757	4.00	3.77	
69 2-Methylnaphthalene	142	8.125	8.125	0.000	91	224301	4.00	3.78	
71 1-Methylnaphthalene	142	8.221	8.221	0.000	92	219542	4.00	3.90	
72 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	95	67588	4.00	3.33	
73 1,2,4,5-Tetrachlorobenzene	216	8.290	8.290	0.000	96	126636	4.00	3.74	
74 2,4,6-Trichlorophenol	196	8.397	8.397	0.000	92	71696	4.00	3.63	
75 2,4,5-Trichlorophenol	196	8.429	8.435	-0.006	95	77349	4.00	3.73	
76 1,1'-Biphenyl	154	8.573	8.573	0.000	95	298388	4.00	3.74	
77 2-Chloronaphthalene	162	8.600	8.600	0.000	95	270221	4.00	3.97	
79 2-Nitroaniline	65	8.686	8.686	0.000	86	62019	4.00	3.88	
82 Dimethyl phthalate	163	8.846	8.846	0.000	99	264343	4.00	3.88	
83 1,3-Dinitrobenzene	168	8.883	8.883	0.000	88	40644	4.00	4.01	
84 2,6-Dinitrotoluene	165	8.910	8.915	-0.005	96	60984	4.00	4.08	
85 Acenaphthylene	152	9.006	9.006	0.000	98	375950	4.00	3.85	
86 3-Nitroaniline	138	9.081	9.081	0.000	92	58182	4.00	3.93	
88 Acenaphthene	153	9.177	9.177	0.000	94	242743	4.00	3.79	
87 2,4-Dinitrophenol	184	9.182	9.182	0.000	83	42457	8.00	7.40	
89 4-Nitrophenol	109	9.230	9.231	-0.001	92	53137	8.00	7.36	
91 2,4-Dinitrotoluene	165	9.305	9.305	0.000	95	79338	4.00	4.06	
93 Dibenzofuran	168	9.343	9.343	0.000	97	357031	4.00	3.83	
96 2,3,4,6-Tetrachlorophenol	232	9.417	9.418	-0.001	69	67431	4.00	3.73	
95 2,3,5,6-Tetrachlorophenol	232	9.460	9.460	0.000	93	70175	4.00	3.90	
97 2-Naphthylamine	143	9.487	9.487	0.000	97	234329	4.00	3.97	
98 Diethyl phthalate	149	9.519	9.519	0.000	98	257355	4.00	3.98	
99 Hexadecane	57	9.524	9.524	0.000	96	162556	4.00	4.09	
100 4-Chlorophenyl phenyl ethe	204	9.653	9.658	-0.005	86	150872	4.00	3.93	
101 4-Nitroaniline	138	9.674	9.674	0.000	59	55734	4.00	3.86	
103 Fluorene	166	9.674	9.674	0.000	92	280814	4.00	3.89	
104 4,6-Dinitro-2-methylphenol	198	9.701	9.706	-0.005	91	86369	8.00	6.46	
105 N-Nitrosodiphenylamine	169	9.765	9.765	0.000	61	207596	4.00	3.91	
90 1,2-Diphenylhydrazine	77	9.807	9.808	-0.001	41	273604	4.00	4.05	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.128	10.128	0.000	64	84447	4.00	3.95	
112 Hexachlorobenzene	284	10.219	10.219	0.000	95	83981	4.00	4.11	
113 Atrazine	200	10.256	10.256	0.000	95	77004	4.00	3.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.400	10.401	-0.001	93	67667	8.00	6.09	
115 n-Octadecane	57	10.406	10.406	0.000	97	161198	4.00	4.13	
121 Phenanthrene	178	10.625	10.625	0.000	97	434334	4.00	3.98	
122 Anthracene	178	10.678	10.678	0.000	97	432547	4.00	3.95	
124 Carbazole	167	10.833	10.833	0.000	96	355182	4.00	3.80	
126 Di-n-butyl phthalate	149	11.159	11.159	0.000	100	393122	4.00	3.74	
131 Fluoranthene	202	12.035	12.035	0.000	97	438746	4.00	3.85	
132 Benzidine	184	12.179	12.179	0.000	99	173209	4.00	3.67	
133 Pyrene	202	12.366	12.361	0.005	96	460634	4.00	3.91	
138 Butyl benzyl phthalate	149	13.291	13.291	0.000	98	147787	4.00	3.70	
144 3,3'-Dichlorobenzidine	252	14.295	14.290	0.005	74	119366	4.00	3.74	
145 Bis(2-ethylhexyl) phthalat	149	14.343	14.343	0.000	96	193713	4.00	3.52	
146 Benzo[a]anthracene	228	14.364	14.359	0.005	97	410741	4.00	3.81	
147 Chrysene	228	14.434	14.429	0.005	97	400172	4.00	3.87	
150 Di-n-octyl phthalate	149	15.657	15.647	0.010	99	290093	4.00	3.30	
151 7,12-Dimethylbenz(a)anthra	256	16.496	16.485	0.011	91	159783	4.00	3.88	
152 Benzo[b]fluoranthene	252	16.512	16.507	0.005	97	353436	4.00	3.90	
153 Benzo[k]fluoranthene	252	16.565	16.565	0.000	99	353974	4.00	3.89	
219 Benzo[e]pyrene	252	17.073	17.068	0.005	0	319084	4.00	3.87	
154 Benzo[a]pyrene	252	17.174	17.174	0.000	78	300906	4.00	3.67	
157 Indeno[1,2,3-cd]pyrene	276	19.669	19.664	0.005	98	320971	4.00	3.72	M
158 Dibenz(a,h)anthracene	278	19.701	19.691	0.010	90	277719	4.00	3.78	M
159 Benzo[g,h,i]perylene	276	20.364	20.348	0.016	96	274436	4.00	3.75	
S 197 Methyl Phenols, Total	108				0		8.00	8.10	
S 199 Total Cresols	108				0		8.00	8.10	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD4.0i\_00006

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D

Injection Date: 28-Jul-2014 05:44:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 5

Client ID:

Injection Vol: 2.0 ul

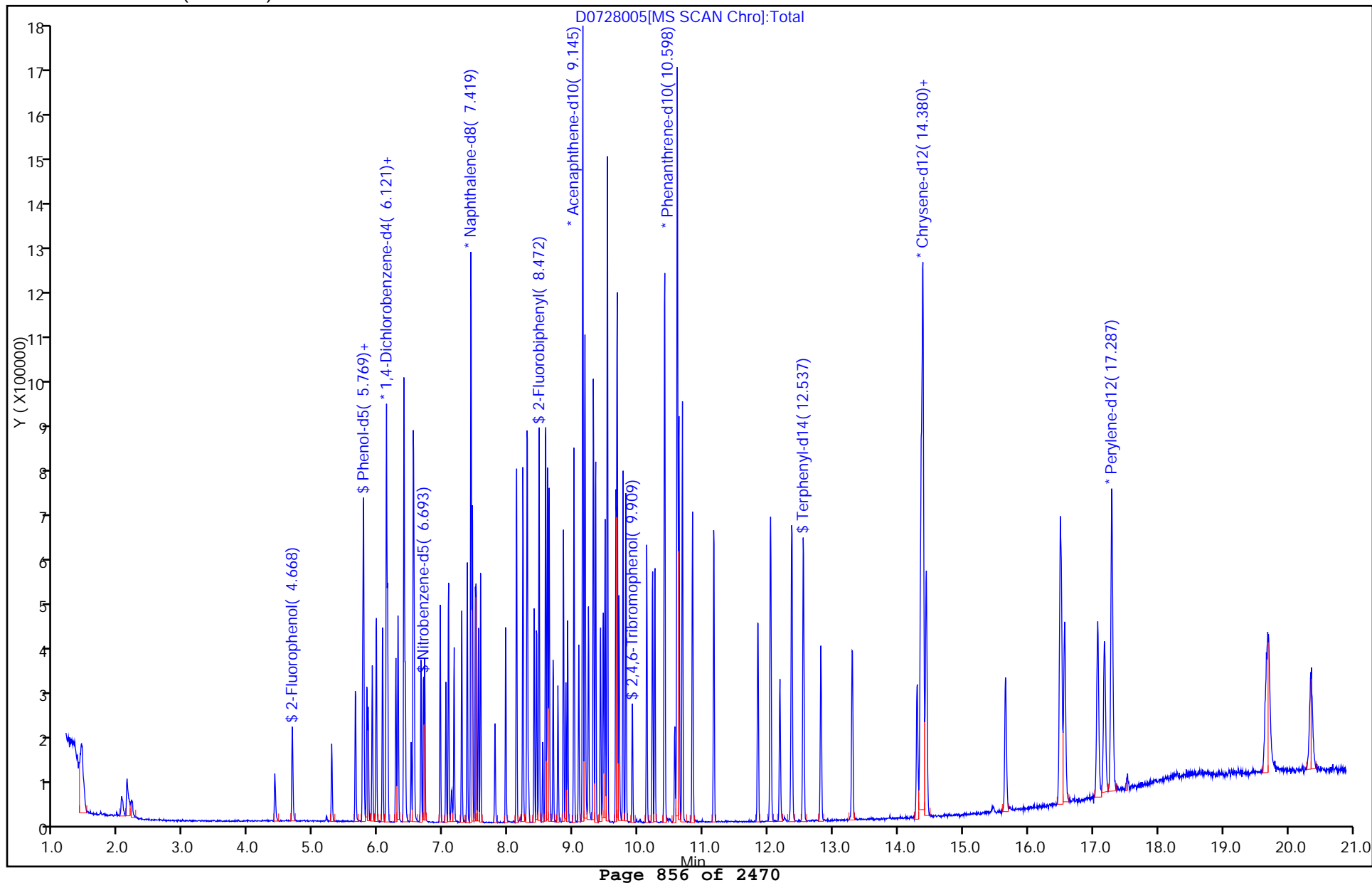
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



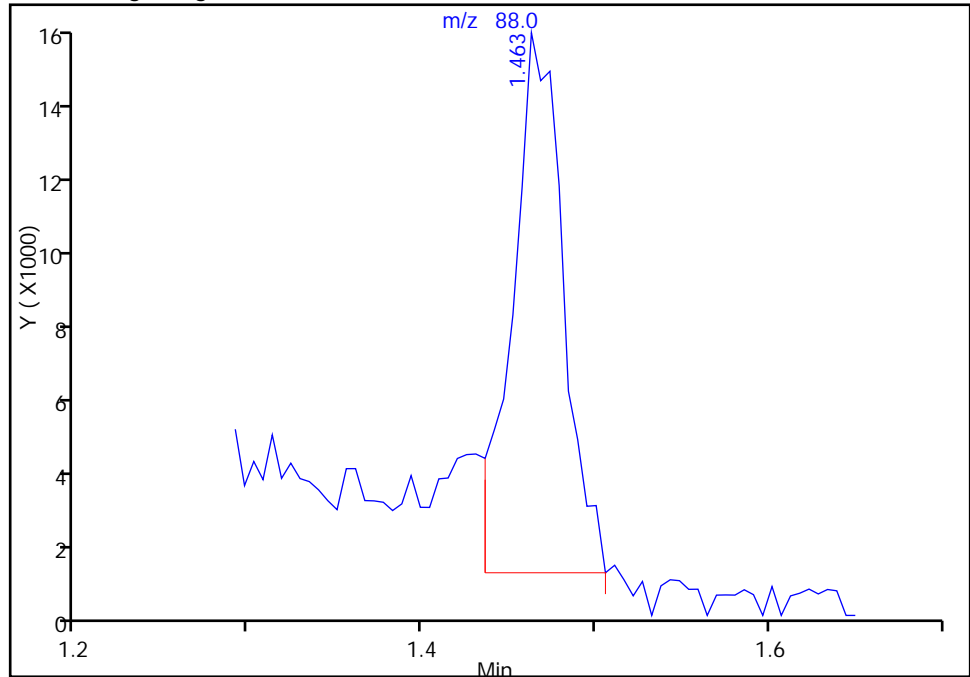
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D  
Injection Date: 28-Jul-2014 05:44:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 13 1,4-Dioxane, CAS: 123-91-1

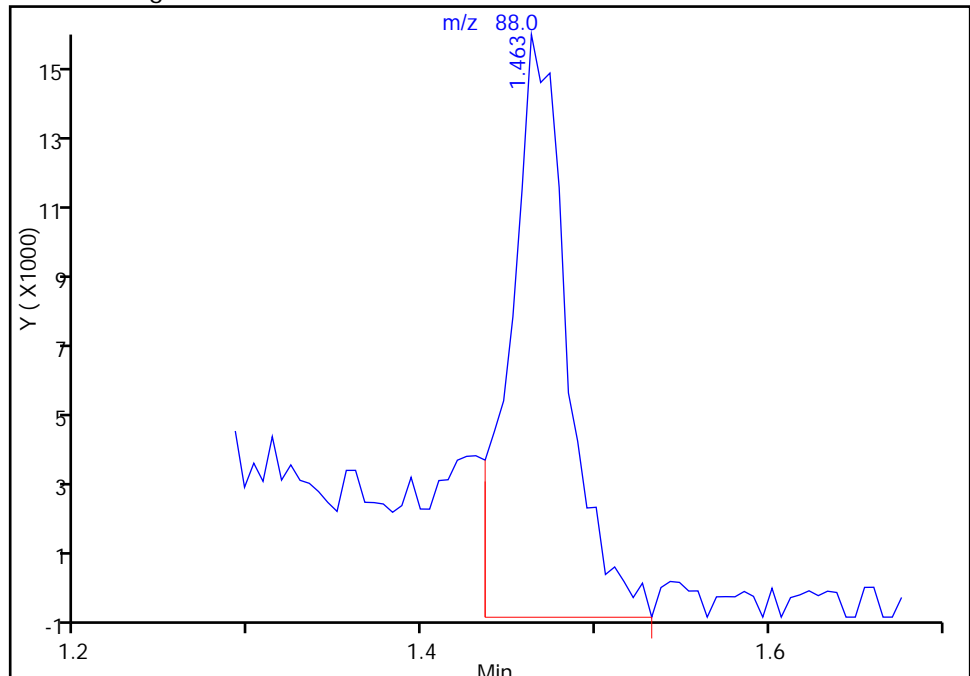
RT: 1.46  
Response: 28517  
Amount: 3.947544

## Processing Integration Results



RT: 1.46  
Response: 34637  
Amount: 4.883581

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:24:19  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

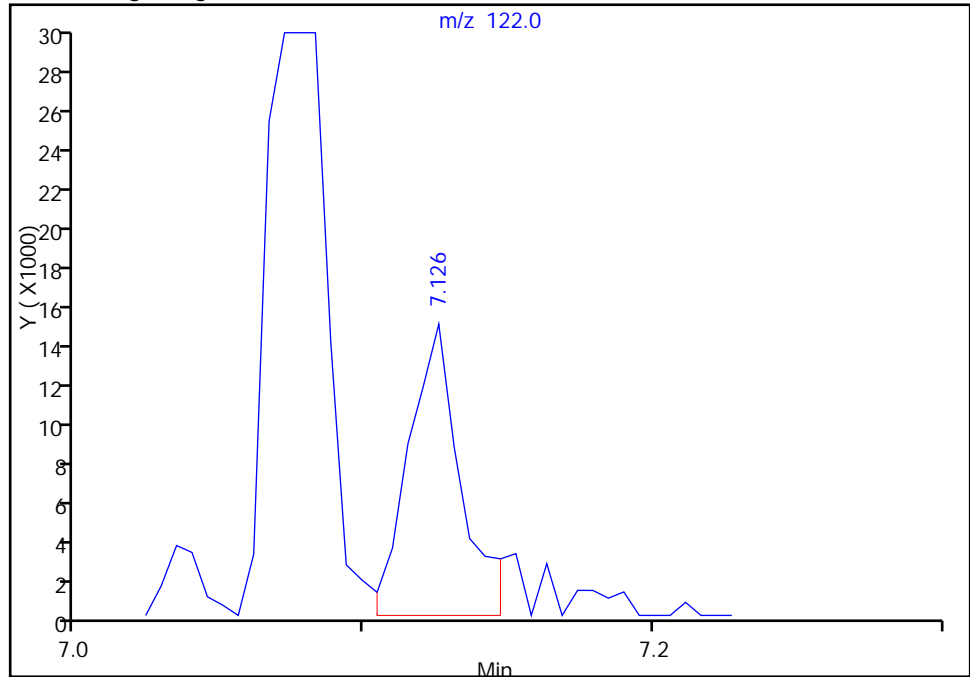
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D  
Injection Date: 28-Jul-2014 05:44:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 52 Benzoic acid, CAS: 65-85-0

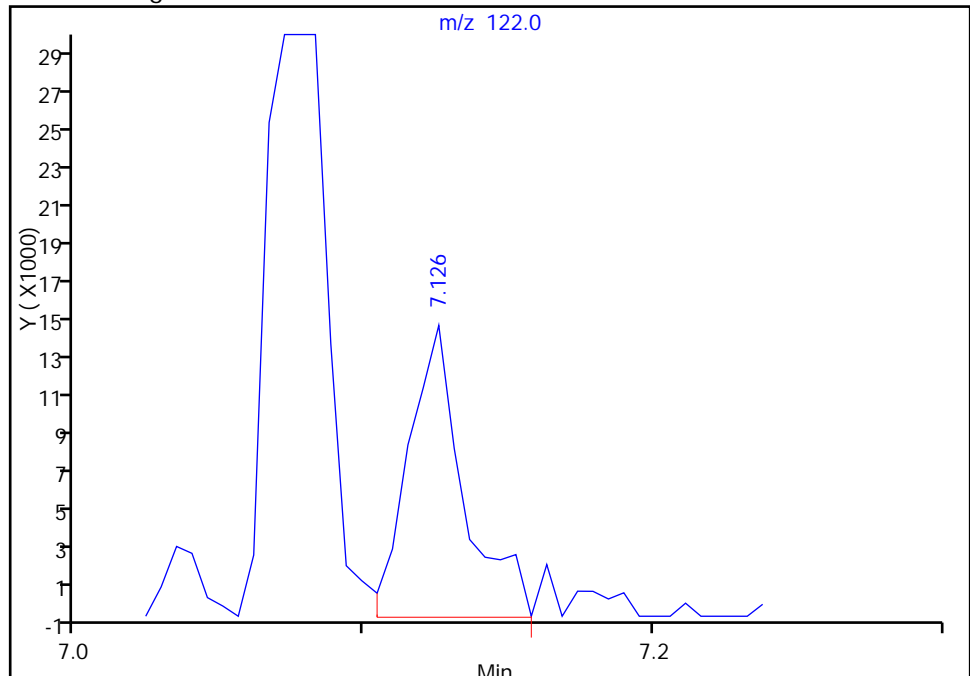
RT: 7.13  
Response: 18755  
Amount: 1.905427

## Processing Integration Results



RT: 7.13  
Response: 19948  
Amount: 4.732828

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:24:19  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D

Injection Date: 28-Jul-2014 05:44:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 4

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

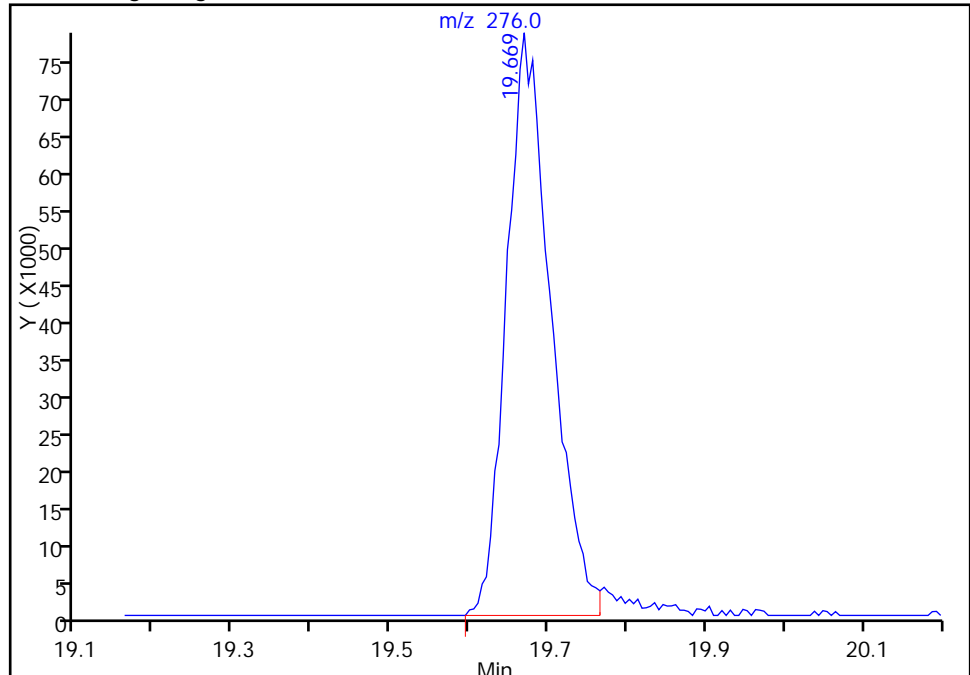
Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

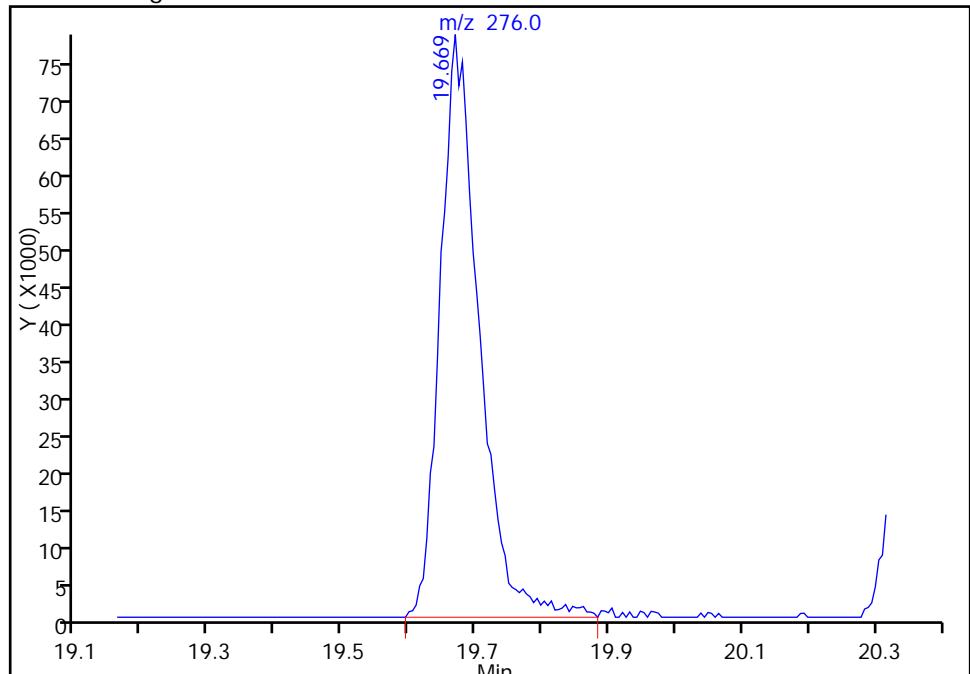
Detector: MS SCAN

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

## Processing Integration Results

RT: 19.67  
Response: 309728  
Amount: 3.731976

## Manual Integration Results

RT: 19.67  
Response: 320971  
Amount: 3.717206

Reviewer: piccolinov, 28-Jul-2014 08:24:19

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

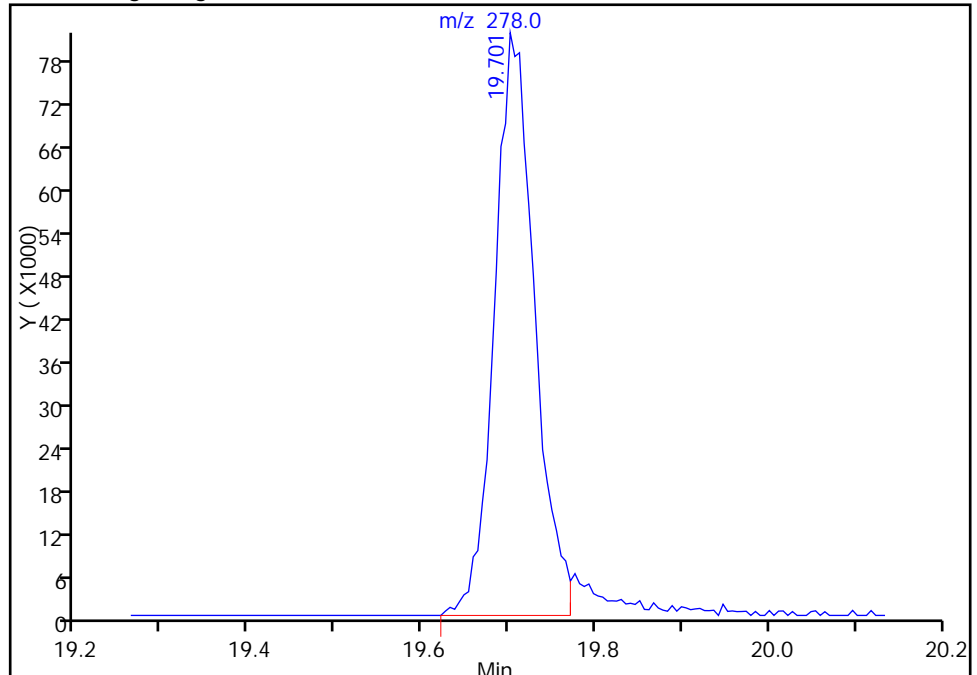
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728005.D  
Injection Date: 28-Jul-2014 05:44:30 Instrument ID: CH732  
Lims ID: IC  
Client ID:  
Operator ID: 003200 ALS Bottle#: 4 Worklist Smp#: 5  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

## 158 Dibenz(a,h)anthracene, CAS: 53-70-3

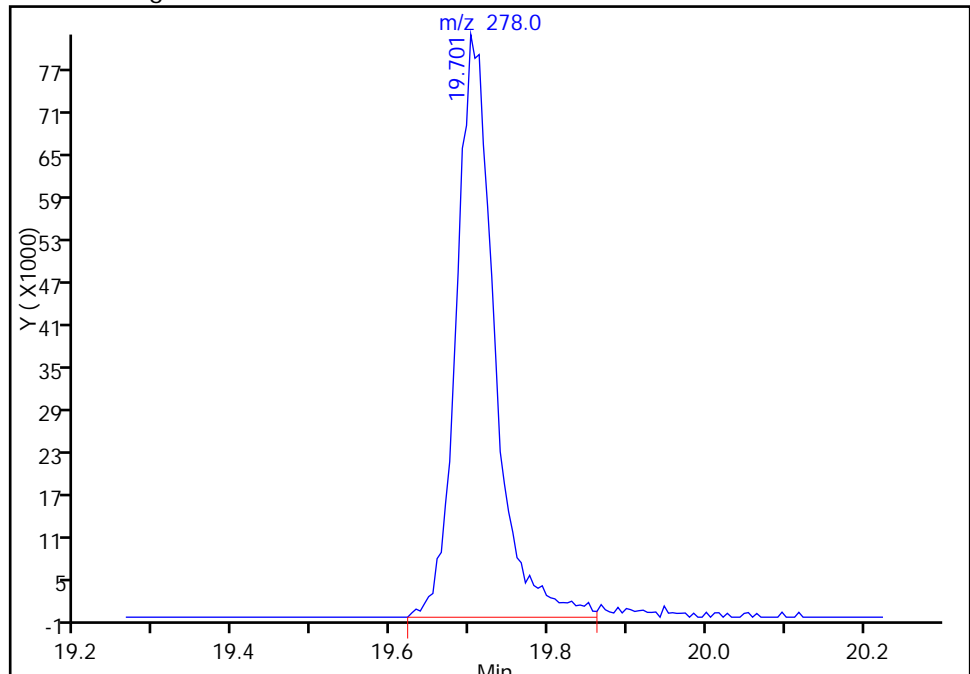
RT: 19.70  
Response: 263480  
Amount: 3.751791

## Processing Integration Results



RT: 19.70  
Response: 277719  
Amount: 3.782744

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:24:19  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728006.D  
 Lims ID: ICIS  
 Client ID:  
 Sample Type: ICIS Calib Level: 4  
 Inject. Date: 28-Jul-2014 06:10:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-006  
 Misc. Info.: ICIS  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:20:11 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 04-Aug-2014 06:20:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.116	6.116	0.000	94	153812	8.00	8.00	
* 2 Naphthalene-d8	136	7.420	7.420	0.000	99	640972	8.00	8.00	
* 3 Acenaphthene-d10	164	9.145	9.145	0.000	91	413078	8.00	8.00	
* 4 Phenanthrene-d10	188	10.598	10.598	0.000	97	714418	8.00	8.00	
* 5 Chrysene-d12	240	14.380	14.380	0.000	97	675388	8.00	8.00	
* 6 Perylene-d12	264	17.287	17.287	0.000	96	515002	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.668	4.668	0.000	93	208798	10.0	10.3	
\$ 8 Phenol-d5	99	5.747	5.747	0.000	99	300130	10.0	9.98	
\$ 9 Nitrobenzene-d5	82	6.688	6.688	0.000	88	272706	10.0	9.85	
\$ 10 2-Fluorobiphenyl	172	8.472	8.472	0.000	100	692739	10.0	9.69	
\$ 11 2,4,6-Tribromophenol	330	9.909	9.909	0.000	92	77291	10.0	10.2	
\$ 12 Terphenyl-d14	244	12.537	12.537	0.000	99	769679	10.0	9.92	
13 1,4-Dioxane	88	1.463	1.463	0.000	93	72284	10.0	9.97	
14 N-Nitrosodimethylamine	74	2.035	2.035	0.000	92	99748	10.0	9.92	
15 Pyridine	79	2.109	2.109	0.000	95	184880	10.0	10.2	
21 Methyl methanesulfonate	80	4.396	4.396	0.000	87	122724	10.0	9.96	
25 Benzaldehyde	77	5.641	5.641	0.000	95	181427	10.0	10.7	
26 Phenol	94	5.763	5.763	0.000	84	324078	10.0	9.81	
27 Aniline	93	5.763	5.763	0.000	74	384431	10.0	10.0	
29 Bis(2-chloroethyl)ether	93	5.838	5.838	0.000	94	214776	10.0	9.67	
30 2-Chlorophenol	128	5.897	5.897	0.000	97	255146	10.0	10.1	
31 n-Decane	43	5.961	5.961	0.000	89	239175	10.0	9.47	
32 1,3-Dichlorobenzene	146	6.057	6.057	0.000	97	295663	10.0	9.68	
33 1,4-Dichlorobenzene	146	6.137	6.137	0.000	94	300983	10.0	9.69	
34 Benzyl alcohol	108	6.266	6.266	0.000	92	156363	10.0	10.7	
35 1,2-Dichlorobenzene	146	6.298	6.298	0.000	97	290282	10.0	9.71	
37 Indene	116	6.389	6.389	0.000	86	413147	10.0	9.67	
36 2-Methylphenol	108	6.389	6.389	0.000	71	228375	10.0	10.0	
38 2,2'-oxybis[1-chloropropan	45	6.410	6.410	0.000	92	333255	10.0	9.90	
39 N-Nitrosopyrrolidine	100	6.501	6.501	0.000	90	112607	10.0	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.533	6.533	0.000	97	348250	10.0	9.88	
41 N-Nitrosodi-n-propylamine	70	6.533	6.533	0.000	89	185172	10.0	10.1	
42 4-Methylphenol	108	6.543	6.543	0.000	97	248455	10.0	10.2	
45 Hexachloroethane	117	6.650	6.650	0.000	92	107962	10.0	9.51	
46 Nitrobenzene	77	6.709	6.709	0.000	88	281438	10.0	10.1	
48 Isophorone	82	6.949	6.949	0.000	100	490700	10.0	10.0	
49 2-Nitrophenol	139	7.035	7.035	0.000	95	147397	10.0	10.4	
50 2,4-Dimethylphenol	107	7.078	7.078	0.000	97	269337	10.0	10.2	
52 Benzoic acid	122	7.136	7.136	0.000	86	79815	10.0	8.84	M
53 Bis(2-chloroethoxy)methane	93	7.163	7.163	0.000	98	293528	10.0	9.77	
54 2,4-Dichlorophenol	162	7.281	7.281	0.000	93	237196	10.0	9.97	
56 1,2,4-Trichlorobenzene	180	7.366	7.366	0.000	93	286667	10.0	9.85	
58 Naphthalene	128	7.441	7.441	0.000	97	823880	10.0	9.62	
59 4-Chloroaniline	127	7.489	7.489	0.000	96	341758	10.0	9.90	
60 2,6-Dichlorophenol	162	7.505	7.505	0.000	98	245400	10.0	10.1	
62 Hexachlorobutadiene	225	7.569	7.569	0.000	93	178230	10.0	9.85	
64 Caprolactam	113	7.799	7.799	0.000	80	70974	10.0	10.4	
67 4-Chloro-3-methylphenol	107	7.959	7.959	0.000	96	237154	10.0	10.2	
69 2-Methylnaphthalene	142	8.125	8.125	0.000	92	573361	10.0	9.77	
71 1-Methylnaphthalene	142	8.221	8.221	0.000	92	538497	10.0	9.68	
72 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	95	191101	10.0	9.79	
73 1,2,4,5-Tetrachlorobenzene	216	8.290	8.290	0.000	96	314703	10.0	9.65	
74 2,4,6-Trichlorophenol	196	8.397	8.397	0.000	91	189056	10.0	9.92	
75 2,4,5-Trichlorophenol	196	8.435	8.435	0.000	96	198636	10.0	9.95	
76 1,1'-Biphenyl	154	8.573	8.573	0.000	95	731184	10.0	9.52	
77 2-Chloronaphthalene	162	8.600	8.600	0.000	95	665343	10.0	10.1	
79 2-Nitroaniline	65	8.686	8.686	0.000	84	160676	10.0	10.4	
82 Dimethyl phthalate	163	8.846	8.846	0.000	99	640110	10.0	9.76	
83 1,3-Dinitrobenzene	168	8.883	8.883	0.000	86	99212	10.0	10.2	
84 2,6-Dinitrotoluene	165	8.915	8.915	0.000	96	147137	10.0	10.2	
85 Acenaphthylene	152	9.006	9.006	0.000	98	904503	10.0	9.63	
86 3-Nitroaniline	138	9.081	9.081	0.000	94	151981	10.0	10.7	
88 Acenaphthene	153	9.177	9.177	0.000	94	598027	10.0	9.70	
87 2,4-Dinitrophenol	184	9.182	9.182	0.000	85	151193	20.0	18.0	
89 4-Nitrophenol	109	9.231	9.231	0.000	94	142940	20.0	20.6	
91 2,4-Dinitrotoluene	165	9.305	9.305	0.000	96	192993	10.0	10.3	
93 Dibenzofuran	168	9.343	9.343	0.000	98	850505	10.0	9.48	
96 2,3,4,6-Tetrachlorophenol	232	9.418	9.418	0.000	69	169491	10.0	9.72	
95 2,3,5,6-Tetrachlorophenol	232	9.460	9.460	0.000	92	174266	10.0	10.1	
97 2-Naphthylamine	143	9.487	9.487	0.000	96	578028	10.0	10.2	
98 Diethyl phthalate	149	9.519	9.519	0.000	98	600533	10.0	9.65	
99 Hexadecane	57	9.524	9.524	0.000	96	387719	10.0	9.85	
100 4-Chlorophenyl phenyl ether	204	9.658	9.658	0.000	87	360714	10.0	9.76	
101 4-Nitroaniline	138	9.674	9.674	0.000	55	144852	10.0	10.4	
103 Fluorene	166	9.674	9.674	0.000	94	676483	10.0	9.73	
104 4,6-Dinitro-2-methylphenol	198	9.706	9.706	0.000	91	235098	20.0	18.5	
105 N-Nitrosodiphenylamine	169	9.765	9.765	0.000	61	503094	10.0	9.96	
90 1,2-Diphenylhydrazine	77	9.808	9.808	0.000	41	643652	10.0	10.0	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.128	10.128	0.000	64	200438	10.0	9.87	
112 Hexachlorobenzene	284	10.219	10.219	0.000	94	188792	10.0	9.72	
113 Atrazine	200	10.256	10.256	0.000	95	189669	10.0	9.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.401	10.401	0.000	92	196481	20.0	16.6	
115 n-Octadecane	57	10.406	10.406	0.000	96	411898	10.0	10.3	
121 Phenanthrene	178	10.625	10.625	0.000	97	993734	10.0	9.59	
122 Anthracene	178	10.678	10.678	0.000	96	1028604	10.0	9.88	
124 Carbazole	167	10.833	10.833	0.000	95	877094	10.0	9.88	
126 Di-n-butyl phthalate	149	11.159	11.159	0.000	100	1000098	10.0	10.0	
131 Fluoranthene	202	12.035	12.035	0.000	98	1047707	10.0	9.66	
132 Benzidine	184	12.179	12.179	0.000	99	487875	10.0	11.2	
133 Pyrene	202	12.361	12.361	0.000	98	1092656	10.0	10.0	
138 Butyl benzyl phthalate	149	13.291	13.291	0.000	97	377257	10.0	10.2	
144 3,3'-Dichlorobenzidine	252	14.290	14.290	0.000	74	302010	10.0	10.2	
145 Bis(2-ethylhexyl) phthalat	149	14.343	14.343	0.000	95	520126	10.0	10.2	
146 Benzo[a]anthracene	228	14.359	14.359	0.000	98	974671	10.0	9.78	
147 Chrysene	228	14.429	14.429	0.000	97	924675	10.0	9.68	
150 Di-n-octyl phthalate	149	15.647	15.647	0.000	99	778439	10.0	9.50	
151 7,12-Dimethylbenz(a)anthra	256	16.485	16.485	0.000	92	391737	10.0	10.2	
152 Benzo[b]fluoranthene	252	16.507	16.507	0.000	97	845547	10.0	10.0	
153 Benzo[k]fluoranthene	252	16.565	16.565	0.000	98	861801	10.0	10.2	
219 Benzo[e]pyrene	252	17.068	17.068	0.000	0	766548	10.0	9.99	
154 Benzo[a]pyrene	252	17.174	17.174	0.000	78	765858	10.0	10.0	
157 Indeno[1,2,3-cd]pyrene	276	19.664	19.664	0.000	98	774798	10.0	9.64	
158 Dibenz(a,h)anthracene	278	19.691	19.691	0.000	93	661054	10.0	9.67	
159 Benzo[g,h,i]perylene	276	20.348	20.348	0.000	97	665730	10.0	9.76	
S 197 Methyl Phenols, Total	108				0		20.0	20.2	
S 199 Total Cresols	108				0		20.0	20.2	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD10i\_00064

Amount Added: 1.00

Units: mL

Report Date: 04-Aug-2014 06:20:12

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728006.D

Injection Date: 28-Jul-2014 06:10:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: ICIS

Worklist Smp#: 6

Client ID:

Injection Vol: 2.0 ul

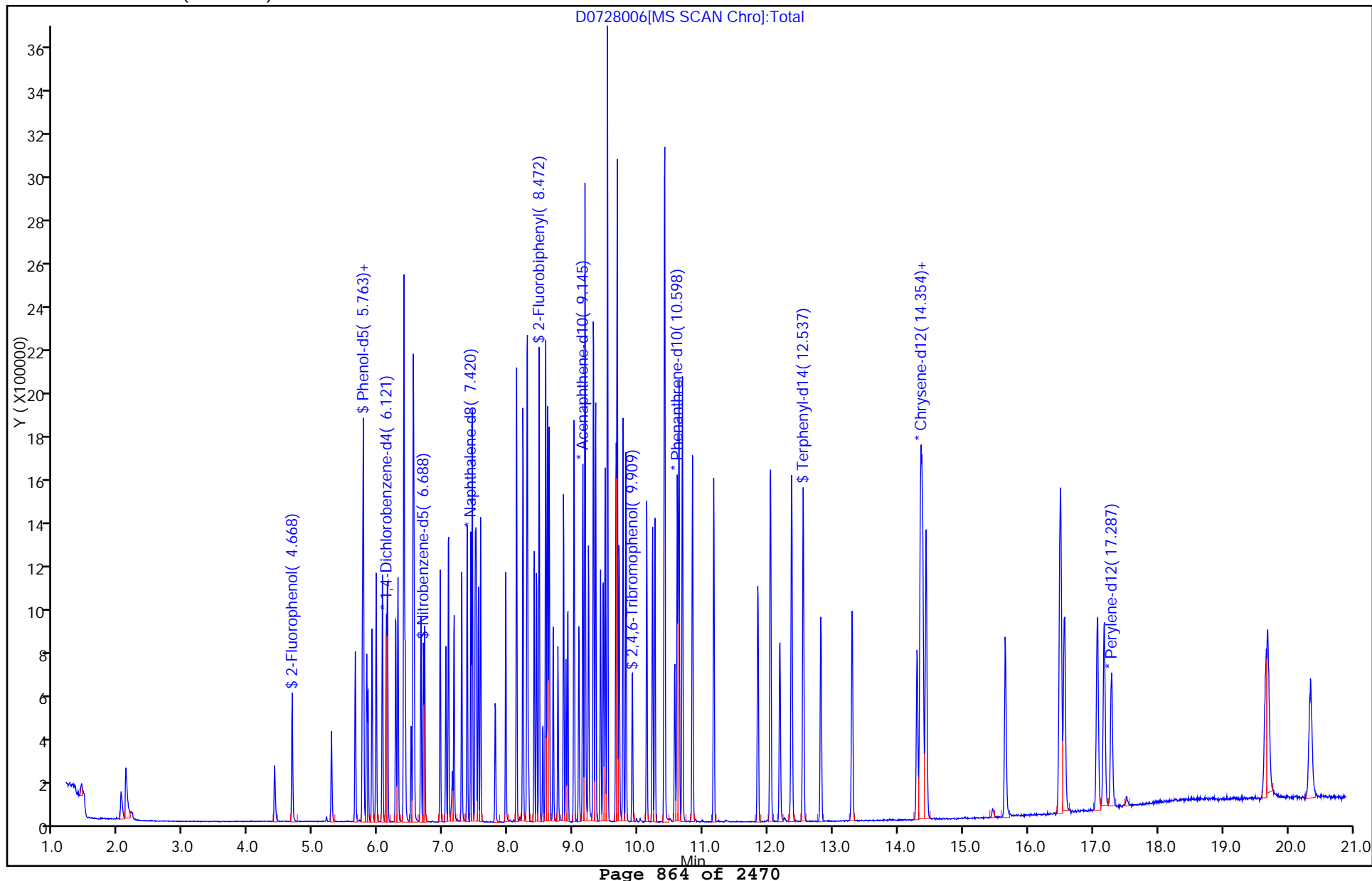
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728006.D

Injection Date: 28-Jul-2014 06:10:30

Instrument ID: CH732

Lims ID: ICIS

Client ID:

Operator ID: 003200

ALS Bottle#:

5

Worklist Smp#: 6

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

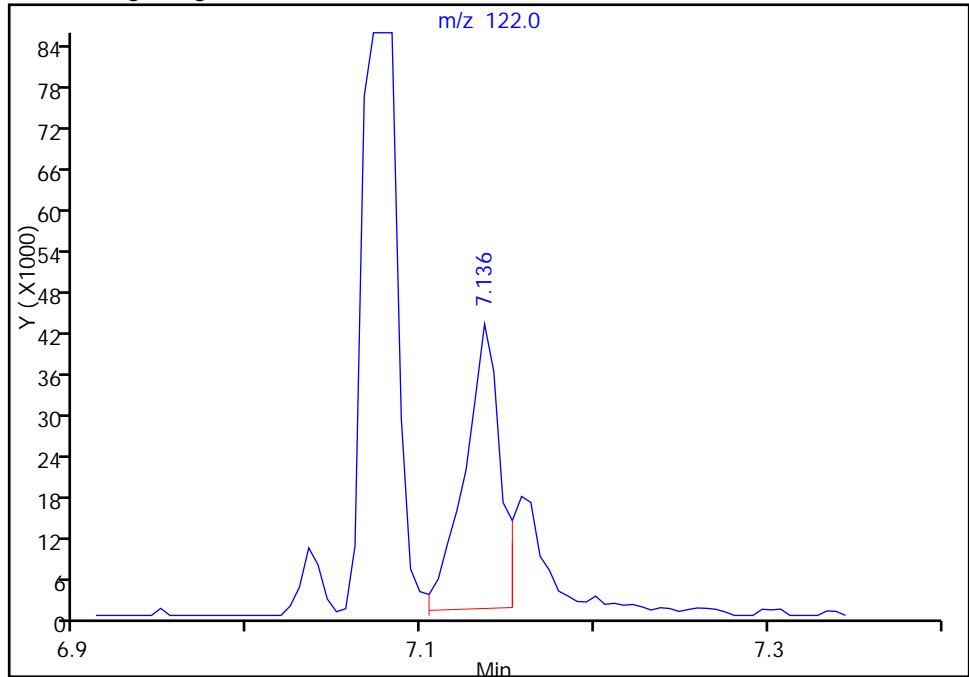
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 52 Benzoic acid, CAS: 65-85-0

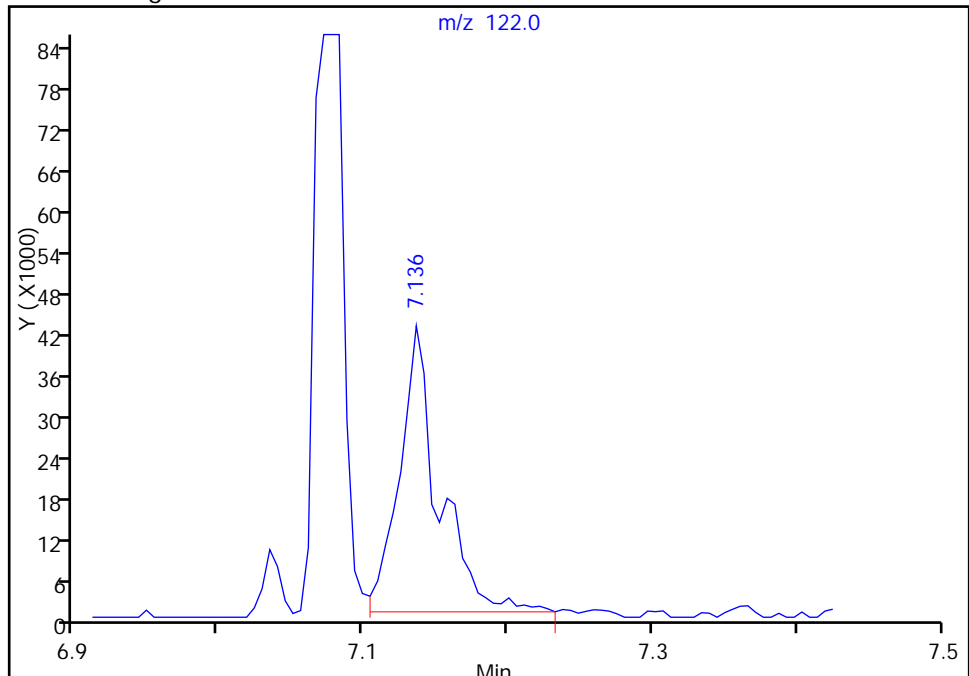
RT: 7.14  
Response: 60200  
Amount: 6.143664

## Processing Integration Results



RT: 7.14  
Response: 79815  
Amount: 8.843542

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:25:16

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728007.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 28-Jul-2014 06:37:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-007  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:15 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:26:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.121	6.116	0.005	94	156792	8.00	8.00	
* 2 Naphthalene-d8	136	7.425	7.420	0.005	99	646037	8.00	8.00	
* 3 Acenaphthene-d10	164	9.150	9.145	0.005	91	409229	8.00	8.00	
* 4 Phenanthrene-d10	188	10.603	10.598	0.005	97	712430	8.00	8.00	
* 5 Chrysene-d12	240	14.391	14.380	0.011	96	684518	8.00	8.00	
* 6 Perylene-d12	264	17.292	17.287	0.005	97	537188	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.674	4.668	0.006	93	411901	20.0	19.9	
\$ 8 Phenol-d5	99	5.753	5.747	0.006	98	589368	20.0	19.2	
\$ 9 Nitrobenzene-d5	82	6.693	6.688	0.005	89	544433	20.0	19.5	
\$ 10 2-Fluorobiphenyl	172	8.472	8.472	0.000	100	1357788	20.0	19.2	
\$ 11 2,4,6-Tribromophenol	330	9.914	9.909	0.005	93	153161	20.0	20.2	
\$ 12 Terphenyl-d14	244	12.548	12.537	0.011	99	1544956	20.0	19.6	
13 1,4-Dioxane	88	1.474	1.463	0.011	91	137804	20.0	18.6	
14 N-Nitrosodimethylamine	74	2.051	2.035	0.016	91	197649	20.0	19.3	
15 Pyridine	79	2.115	2.109	0.006	94	365472	20.0	19.8	
21 Methyl methanesulfonate	80	4.401	4.396	0.005	87	242553	20.0	19.3	
25 Benzaldehyde	77	5.641	5.641	0.000	96	360217	20.0	20.8	
26 Phenol	94	5.769	5.763	0.006	84	656863	20.0	19.5	
27 Aniline	93	5.769	5.763	0.006	72	761598	20.0	19.4	
29 Bis(2-chloroethyl)ether	93	5.838	5.838	0.000	95	428355	20.0	18.9	
30 2-Chlorophenol	128	5.902	5.897	0.005	97	498738	20.0	19.3	
31 n-Decane	43	5.966	5.961	0.005	90	483607	20.0	18.8	
32 1,3-Dichlorobenzene	146	6.063	6.057	0.006	97	588100	20.0	18.9	
33 1,4-Dichlorobenzene	146	6.137	6.137	0.000	94	595034	20.0	18.8	
34 Benzyl alcohol	108	6.266	6.266	0.000	92	312639	20.0	21.1	
35 1,2-Dichlorobenzene	146	6.298	6.298	0.000	97	573576	20.0	18.8	
37 Indene	116	6.388	6.389	0.000	88	827949	20.0	19.0	
36 2-Methylphenol	108	6.394	6.389	0.006	95	458351	20.0	19.8	
38 2,2'-oxybis[1-chloropropan	45	6.410	6.410	0.000	93	657023	20.0	19.1	
39 N-Nitrosopyrrolidine	100	6.506	6.501	0.005	91	232188	20.0	20.3	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.533	6.533	0.000	90	701410	20.0	19.5	
41 N-Nitrosodi-n-propylamine	70	6.533	6.533	0.000	74	367578	20.0	19.6	
42 4-Methylphenol	108	6.549	6.543	0.006	93	496238	20.0	19.9	
45 Hexachloroethane	117	6.650	6.650	0.000	94	218967	20.0	18.9	
46 Nitrobenzene	77	6.709	6.709	0.000	87	554457	20.0	19.8	
48 Isophorone	82	6.949	6.949	0.000	99	962731	20.0	19.6	
49 2-Nitrophenol	139	7.035	7.035	0.000	96	293573	20.0	20.5	
50 2,4-Dimethylphenol	107	7.078	7.078	0.000	97	525164	20.0	19.7	
52 Benzoic acid	122	7.152	7.136	0.016	88	214088	20.0	17.9	
53 Bis(2-chloroethoxy)methane	93	7.163	7.163	0.000	98	580114	20.0	19.2	
54 2,4-Dichlorophenol	162	7.281	7.281	0.000	93	475326	20.0	19.8	
56 1,2,4-Trichlorobenzene	180	7.366	7.366	0.000	93	559098	20.0	19.1	
58 Naphthalene	128	7.446	7.441	0.005	97	1651561	20.0	19.1	
59 4-Chloroaniline	127	7.494	7.489	0.005	97	690371	20.0	19.9	
60 2,6-Dichlorophenol	162	7.505	7.505	0.000	98	478613	20.0	19.5	
62 Hexachlorobutadiene	225	7.574	7.569	0.005	92	349602	20.0	19.2	
64 Caprolactam	113	7.804	7.799	0.005	81	143038	20.0	20.8	
67 4-Chloro-3-methylphenol	107	7.959	7.959	0.000	96	481996	20.0	20.5	
69 2-Methylnaphthalene	142	8.125	8.125	0.000	92	1139612	20.0	19.3	
71 1-Methylnaphthalene	142	8.226	8.221	0.005	92	1056450	20.0	18.8	
72 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	95	388858	20.0	20.1	
73 1,2,4,5-Tetrachlorobenzene	216	8.296	8.290	0.006	96	614797	20.0	19.0	
74 2,4,6-Trichlorophenol	196	8.397	8.397	0.000	91	392293	20.0	20.8	
75 2,4,5-Trichlorophenol	196	8.440	8.435	0.005	95	403136	20.0	20.4	
76 1,1'-Biphenyl	154	8.573	8.573	0.000	95	1443124	20.0	19.0	
77 2-Chloronaphthalene	162	8.605	8.600	0.005	94	1240590	20.0	19.1	
79 2-Nitroaniline	65	8.691	8.686	0.005	85	315645	20.0	20.7	
82 Dimethyl phthalate	163	8.851	8.846	0.005	99	1252453	20.0	19.3	
83 1,3-Dinitrobenzene	168	8.889	8.883	0.006	87	194374	20.0	20.1	
84 2,6-Dinitrotoluene	165	8.915	8.915	0.000	94	289919	20.0	20.3	
85 Acenaphthylene	152	9.011	9.006	0.005	98	1839231	20.0	19.8	
86 3-Nitroaniline	138	9.086	9.081	0.005	94	286382	20.0	20.3	
88 Acenaphthene	153	9.182	9.177	0.005	94	1168084	20.0	19.1	
87 2,4-Dinitrophenol	184	9.188	9.182	0.006	84	330653	40.0	35.6	
89 4-Nitrophenol	109	9.236	9.231	0.005	93	292804	40.0	42.5	
91 2,4-Dinitrotoluene	165	9.311	9.305	0.006	94	380080	20.0	20.4	
93 Dibenzofuran	168	9.348	9.343	0.005	98	1681008	20.0	18.9	
96 2,3,4,6-Tetrachlorophenol	232	9.423	9.418	0.005	69	355012	20.0	20.6	
95 2,3,5,6-Tetrachlorophenol	232	9.460	9.460	0.000	92	350217	20.0	20.4	
97 2-Naphthylamine	143	9.492	9.487	0.005	96	1114888	20.0	19.8	
98 Diethyl phthalate	149	9.524	9.519	0.005	98	1184348	20.0	19.2	
99 Hexadecane	57	9.530	9.524	0.006	96	776197	20.0	19.6	
100 4-Chlorophenyl phenyl ether	204	9.658	9.658	0.000	88	716838	20.0	19.6	
101 4-Nitroaniline	138	9.679	9.674	0.005	76	277760	20.0	20.2	
103 Fluorene	166	9.679	9.674	0.005	93	1320533	20.0	19.2	
104 4,6-Dinitro-2-methylphenol	198	9.711	9.706	0.005	92	501573	40.0	39.6	
105 N-Nitrosodiphenylamine	169	9.770	9.765	0.005	62	965392	20.0	19.2	
90 1,2-Diphenylhydrazine	77	9.813	9.808	0.005	41	1274373	20.0	19.9	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.133	10.128	0.005	63	388979	20.0	19.2	
112 Hexachlorobenzene	284	10.224	10.219	0.005	95	366801	20.0	18.9	
113 Atrazine	200	10.262	10.256	0.006	95	379503	20.0	20.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.400	10.401	-0.001	93	450758	40.0	36.9	
115 n-Octadecane	57	10.411	10.406	0.005	96	813416	20.0	20.0	
121 Phenanthrene	178	10.630	10.625	0.005	97	1947299	20.0	18.9	
122 Anthracene	178	10.684	10.678	0.006	96	2026576	20.0	19.5	
124 Carbazole	167	10.839	10.833	0.006	96	1718091	20.0	19.4	
126 Di-n-butyl phthalate	149	11.164	11.159	0.005	100	2033554	20.0	20.4	
131 Fluoranthene	202	12.041	12.035	0.006	97	2097029	20.0	19.4	
132 Benzidine	184	12.185	12.179	0.006	99	1049626	20.0	23.7	
133 Pyrene	202	12.366	12.361	0.005	98	2166214	20.0	19.6	
138 Butyl benzyl phthalate	149	13.301	13.291	0.010	97	775350	20.0	20.7	
144 3,3'-Dichlorobenzidine	252	14.300	14.290	0.010	74	623689	20.0	20.8	
145 Bis(2-ethylhexyl) phthalat	149	14.348	14.343	0.005	95	1094896	20.0	21.3	
146 Benzo[a]anthracene	228	14.364	14.359	0.005	98	1958419	20.0	19.4	
147 Chrysene	228	14.439	14.429	0.010	97	1872310	20.0	19.3	
150 Di-n-octyl phthalate	149	15.657	15.647	0.010	99	1776670	20.0	20.8	
151 7,12-Dimethylbenz(a)anthra	256	16.496	16.485	0.011	91	791721	20.0	19.8	
152 Benzo[b]fluoranthene	252	16.517	16.507	0.010	97	1721697	20.0	19.5	
153 Benzo[k]fluoranthene	252	16.571	16.565	0.006	99	1760231	20.0	19.9	
219 Benzo[e]pyrene	252	17.078	17.068	0.010	0	1568487	20.0	19.6	
154 Benzo[a]pyrene	252	17.180	17.174	0.006	77	1577509	20.0	19.8	
157 Indeno[1,2,3-cd]pyrene	276	19.675	19.664	0.011	97	1654517	20.0	19.7	
158 Dibenz(a,h)anthracene	278	19.707	19.691	0.016	92	1403787	20.0	19.7	
159 Benzo[g,h,i]perylene	276	20.369	20.348	0.021	97	1381712	20.0	19.4	
S 197 Methyl Phenols, Total	108				0		40.0	39.7	
S 199 Total Cresols	108				0		40.0	39.7	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPSTD20i\_00005

Amount Added: 1.00

Units: mL

Report Date: 04-Aug-2014 06:19:16

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728007.D

Injection Date: 28-Jul-2014 06:37:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 7

Client ID:

Injection Vol: 2.0 ul

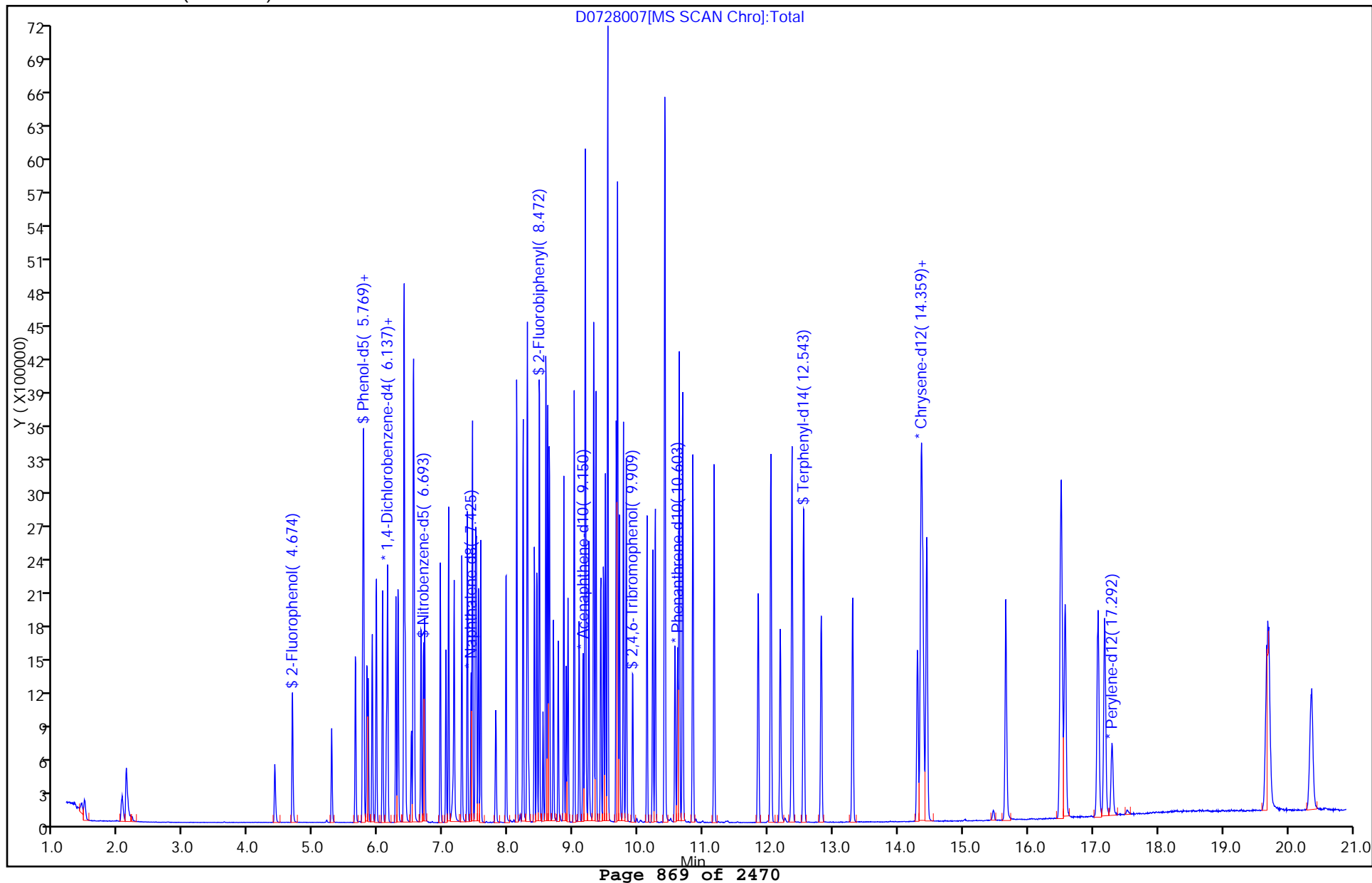
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728008.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 28-Jul-2014 07:03:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-008  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:18 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:27:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.116	6.116	0.000	96	142970	8.00	8.00	
* 2 Naphthalene-d8	136	7.425	7.420	0.005	99	612241	8.00	8.00	
* 3 Acenaphthene-d10	164	9.150	9.145	0.005	92	390138	8.00	8.00	
* 4 Phenanthrene-d10	188	10.603	10.598	0.005	97	682163	8.00	8.00	
* 5 Chrysene-d12	240	14.396	14.380	0.016	97	663490	8.00	8.00	
* 6 Perylene-d12	264	17.302	17.287	0.015	96	517954	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.663	4.668	-0.005	93	789267	40.0	41.9	
\$ 8 Phenol-d5	99	5.753	5.747	0.006	98	1139664	40.0	40.8	
\$ 9 Nitrobenzene-d5	82	6.693	6.688	0.005	88	1052616	40.0	39.8	
\$ 10 2-Fluorobiphenyl	172	8.477	8.472	0.005	100	2722697	40.0	40.3	
\$ 11 2,4,6-Tribromophenol	330	9.914	9.909	0.005	94	305391	40.0	42.0	
\$ 12 Terphenyl-d14	244	12.548	12.537	0.011	99	3084863	40.0	40.5	
13 1,4-Dioxane	88	1.452	1.463	-0.011	92	257440	40.0	38.2	
14 N-Nitrosodimethylamine	74	2.024	2.035	-0.011	92	383375	40.0	41.0	
15 Pyridine	79	2.088	2.109	-0.021	94	714997	40.0	42.5	
21 Methyl methanesulfonate	80	4.390	4.396	-0.006	87	467272	40.0	40.8	
25 Benzaldehyde	77	5.640	5.641	-0.001	95	669367	40.0	42.4	
26 Phenol	94	5.763	5.763	0.000	85	1259939	40.0	41.1	
27 Aniline	93	5.763	5.763	0.000	72	1473087	40.0	41.2	
29 Bis(2-chloroethyl)ether	93	5.838	5.838	0.000	94	828317	40.0	40.1	
30 2-Chlorophenol	128	5.897	5.897	0.000	97	967270	40.0	41.0	
31 n-Decane	43	5.961	5.961	0.000	90	917763	40.0	39.1	
32 1,3-Dichlorobenzene	146	6.057	6.057	0.000	97	1121175	40.0	39.5	
33 1,4-Dichlorobenzene	146	6.137	6.137	0.000	94	1154788	40.0	40.0	
34 Benzyl alcohol	108	6.265	6.266	-0.001	92	590632	40.0	43.7	
35 1,2-Dichlorobenzene	146	6.297	6.298	-0.001	97	1095317	40.0	39.4	
37 Indene	116	6.388	6.389	0.000	88	1585077	40.0	39.9	
36 2-Methylphenol	108	6.394	6.389	0.006	96	867010	40.0	41.0	
38 2,2'-oxybis[1-chloropropan	45	6.410	6.410	0.000	93	1227813	40.0	39.2	
39 N-Nitrosopyrrolidine	100	6.506	6.501	0.005	91	434363	40.0	41.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.533	6.533	0.000	91	1301187	40.0	39.7	
41 N-Nitrosodi-n-propylamine	70	6.538	6.533	0.005	77	688778	40.0	40.4	
42 4-Methylphenol	108	6.549	6.543	0.006	94	928127	40.0	40.9	
45 Hexachloroethane	117	6.650	6.650	0.000	94	427211	40.0	40.5	
46 Nitrobenzene	77	6.709	6.709	0.000	87	1058300	40.0	39.9	
48 Isophorone	82	6.949	6.949	0.000	100	1908149	40.0	40.9	
49 2-Nitrophenol	139	7.035	7.035	0.000	95	573181	40.0	42.2	
50 2,4-Dimethylphenol	107	7.077	7.078	-0.001	96	1025957	40.0	40.5	
52 Benzoic acid	122	7.174	7.136	0.038	88	513454	40.0	40.2	
53 Bis(2-chloroethoxy)methane	93	7.163	7.163	0.000	99	1124043	40.0	39.2	
54 2,4-Dichlorophenol	162	7.280	7.281	-0.001	93	930157	40.0	40.9	
56 1,2,4-Trichlorobenzene	180	7.366	7.366	0.000	92	1094256	40.0	39.4	
58 Naphthalene	128	7.446	7.441	0.005	97	3242343	40.0	39.6	
59 4-Chloroaniline	127	7.494	7.489	0.005	97	1332027	40.0	40.4	
60 2,6-Dichlorophenol	162	7.505	7.505	0.000	98	929642	40.0	40.0	
62 Hexachlorobutadiene	225	7.569	7.569	0.000	92	672849	40.0	38.9	
64 Caprolactam	113	7.815	7.799	0.016	81	286247	40.0	44.0	
67 4-Chloro-3-methylphenol	107	7.964	7.959	0.005	97	922012	40.0	41.5	
69 2-Methylnaphthalene	142	8.125	8.125	-0.001	92	2194348	40.0	39.2	
71 1-Methylnaphthalene	142	8.226	8.221	0.005	92	2083294	40.0	39.2	
72 Hexachlorocyclopentadiene	237	8.285	8.285	0.000	95	785311	40.0	42.6	
73 1,2,4,5-Tetrachlorobenzene	216	8.295	8.290	0.005	96	1198541	40.0	38.9	
74 2,4,6-Trichlorophenol	196	8.402	8.397	0.005	91	750520	40.0	41.7	
75 2,4,5-Trichlorophenol	196	8.440	8.435	0.005	95	806416	40.0	42.8	
76 1,1'-Biphenyl	154	8.579	8.573	0.006	94	2856673	40.0	39.4	
77 2-Chloronaphthalene	162	8.605	8.600	0.005	94	2308753	40.0	37.3	
79 2-Nitroaniline	65	8.691	8.686	0.005	84	616530	40.0	42.4	
82 Dimethyl phthalate	163	8.856	8.846	0.010	100	2471216	40.0	39.9	
83 1,3-Dinitrobenzene	168	8.888	8.883	0.005	89	388222	40.0	42.1	
84 2,6-Dinitrotoluene	165	8.920	8.915	0.005	96	567436	40.0	41.7	
85 Acenaphthylene	152	9.011	9.006	0.005	98	3694378	40.0	41.6	
86 3-Nitroaniline	138	9.091	9.081	0.010	93	571921	40.0	42.4	
88 Acenaphthene	153	9.182	9.177	0.005	92	2269440	40.0	39.0	
87 2,4-Dinitrophenol	184	9.188	9.182	0.006	85	742575	80.0	79.1	
89 4-Nitrophenol	109	9.241	9.231	0.010	93	583224	80.0	88.8	
91 2,4-Dinitrotoluene	165	9.310	9.305	0.005	95	727470	40.0	40.9	
93 Dibenzofuran	168	9.348	9.343	0.005	98	3364771	40.0	39.7	
96 2,3,4,6-Tetrachlorophenol	232	9.423	9.418	0.005	68	707528	40.0	43.0	
95 2,3,5,6-Tetrachlorophenol	232	9.465	9.460	0.005	91	700821	40.0	42.8	
97 2-Naphthylamine	143	9.492	9.487	0.005	97	2207327	40.0	41.1	
98 Diethyl phthalate	149	9.530	9.519	0.011	98	2320820	40.0	39.5	
99 Hexadecane	57	9.530	9.524	0.006	76	1498672	40.0	39.9	
100 4-Chlorophenyl phenyl ether	204	9.663	9.658	0.005	85	1378047	40.0	39.5	
101 4-Nitroaniline	138	9.679	9.674	0.005	85	573249	40.0	43.6	
103 Fluorene	166	9.679	9.674	0.005	93	2588317	40.0	39.4	
104 4,6-Dinitro-2-methylphenol	198	9.711	9.706	0.005	93	1019686	80.0	84.0	
105 N-Nitrosodiphenylamine	169	9.770	9.765	0.005	61	1945864	40.0	40.3	
90 1,2-Diphenylhydrazine	77	9.813	9.808	0.005	41	2453182	40.0	40.0	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.133	10.128	0.005	63	776585	40.0	40.0	
112 Hexachlorobenzene	284	10.224	10.219	0.005	95	721877	40.0	38.9	
113 Atrazine	200	10.261	10.256	0.005	95	752928	40.0	41.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.406	10.401	0.005	94	922796	80.0	77.8	
115 n-Octadecane	57	10.411	10.406	0.005	96	1560435	40.0	42.0	
121 Phenanthrene	178	10.630	10.625	0.005	97	3851063	40.0	38.9	
122 Anthracene	178	10.683	10.678	0.005	95	4011360	40.0	40.3	
124 Carbazole	167	10.838	10.833	0.005	95	3383290	40.0	39.9	
126 Di-n-butyl phthalate	149	11.164	11.159	0.005	100	4025506	40.0	42.2	
131 Fluoranthene	202	12.040	12.035	0.005	97	4214177	40.0	40.7	
132 Benzidine	184	12.185	12.179	0.006	99	2016804	40.0	47.0	
133 Pyrene	202	12.366	12.361	0.005	98	4209065	40.0	39.3	
138 Butyl benzyl phthalate	149	13.301	13.291	0.010	97	1547229	40.0	42.6	
144 3,3'-Dichlorobenzidine	252	14.305	14.290	0.015	74	1265756	40.0	43.6	
145 Bis(2-ethylhexyl) phthalat	149	14.348	14.343	0.005	95	2255911	40.0	45.2	
146 Benzo[a]anthracene	228	14.375	14.359	0.016	97	3907750	40.0	39.9	
147 Chrysene	228	14.444	14.429	0.015	97	3746523	40.0	39.9	
150 Di-n-octyl phthalate	149	15.662	15.647	0.015	99	3703120	40.0	44.9	
151 7,12-Dimethylbenz(a)anthra	256	16.506	16.485	0.021	92	1620058	40.0	42.0	
152 Benzo[b]fluoranthene	252	16.528	16.507	0.021	97	3542178	40.0	41.7	
153 Benzo[k]fluoranthene	252	16.581	16.565	0.016	99	3373856	40.0	39.6	
219 Benzo[e]pyrene	252	17.083	17.068	0.015	0	3116197	40.0	40.4	
154 Benzo[a]pyrene	252	17.190	17.174	0.016	77	3158799	40.0	41.2	
157 Indeno[1,2,3-cd]pyrene	276	19.680	19.664	0.016	96	3350922	40.0	41.4	
158 Dibenz(a,h)anthracene	278	19.723	19.691	0.031	90	2830924	40.0	41.2	
159 Benzo[g,h,i]perylene	276	20.369	20.348	0.021	97	2762815	40.0	40.3	M
S 197 Methyl Phenols, Total	108				0		80.0	81.9	
S 199 Total Cresols	108				0		80.0	81.9	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD40i\_00005

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728008.D

Injection Date: 28-Jul-2014 07:03:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

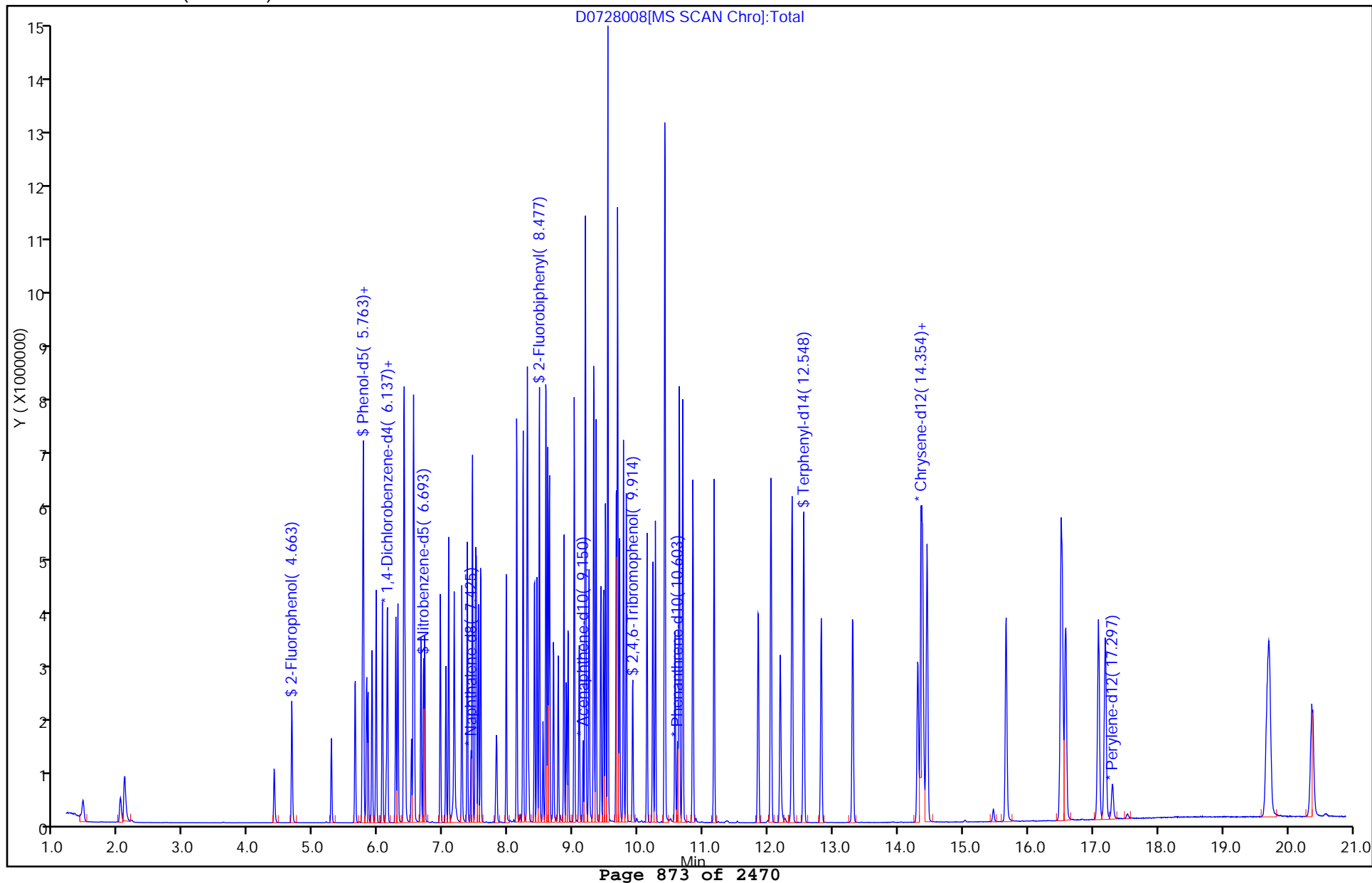
Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Operator ID: 003200

Worklist Smp#: 8

ALS Bottle#: 7



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728008.D

Injection Date: 28-Jul-2014 07:03:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 7

Worklist Smp#: 8

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

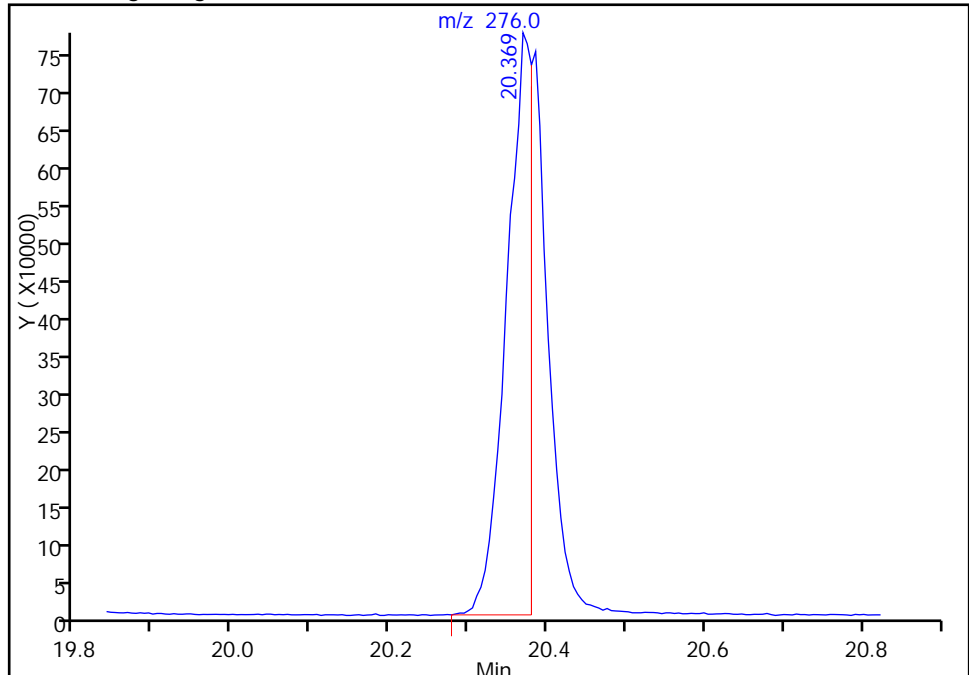
Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

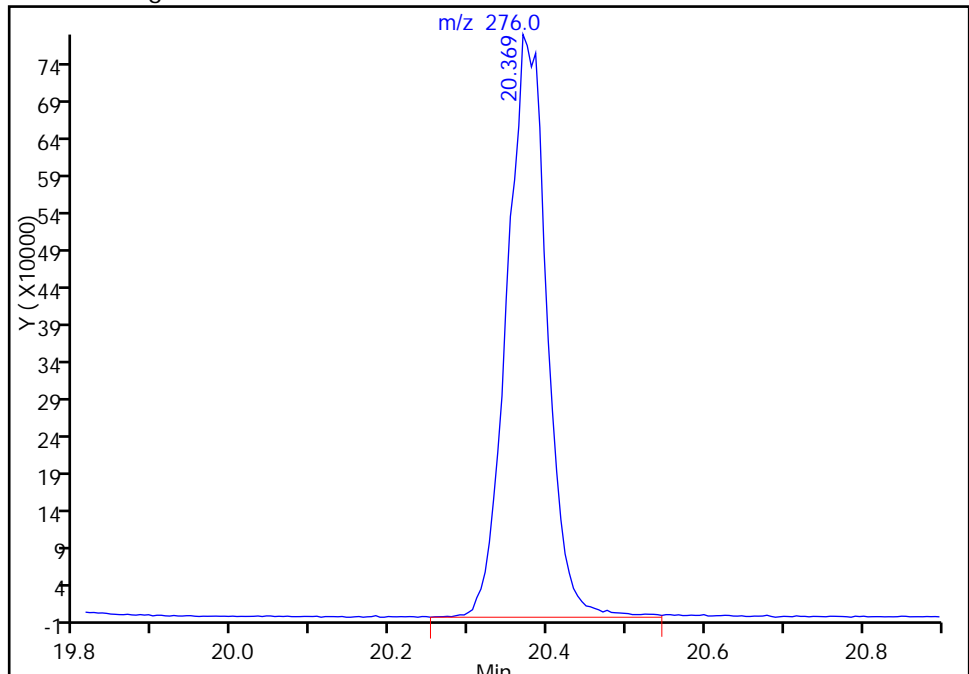
## 159 Benzo[g,h,i]perylene, CAS: 191-24-2

RT: 20.37  
Response: 1725151  
Amount: 27.656746

## Processing Integration Results

RT: 20.37  
Response: 2762815  
Amount: 40.291821

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:27:10

Audit Action: Manually Integrated

Audit Reason: Poor chromatography



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728009.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 28-Jul-2014 07:29:30 ALS Bottle#: 8 Worklist Smp#: 9  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-009  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:20 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:29:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.121	6.116	0.005	95	143935	8.00	8.00	
* 2 Naphthalene-d8	136	7.425	7.420	0.005	99	602463	8.00	8.00	
* 3 Acenaphthene-d10	164	9.150	9.145	0.005	92	366012	8.00	8.00	
* 4 Phenanthrene-d10	188	10.609	10.598	0.011	98	634731	8.00	8.00	
* 5 Chrysene-d12	240	14.397	14.380	0.017	96	619176	8.00	8.00	
* 6 Perylene-d12	264	17.308	17.287	0.021	97	493151	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.663	4.668	-0.005	93	1206833	60.0	63.6	
\$ 8 Phenol-d5	99	5.753	5.747	0.006	98	1701566	60.0	60.5	
\$ 9 Nitrobenzene-d5	82	6.693	6.688	0.005	88	1587927	60.0	61.0	
\$ 10 2-Fluorobiphenyl	172	8.477	8.472	0.005	99	3985819	60.0	62.9	
\$ 11 2,4,6-Tribromophenol	330	9.920	9.909	0.011	94	441185	60.0	65.3	
\$ 12 Terphenyl-d14	244	12.548	12.537	0.011	98	4420801	60.0	62.1	
13 1,4-Dioxane	88	1.452	1.463	-0.011	92	397414	60.0	58.6	
14 N-Nitrosodimethylamine	74	2.024	2.035	-0.011	92	589009	60.0	62.6	
15 Pyridine	79	2.088	2.109	-0.021	96	1122637	60.0	66.3	
21 Methyl methanesulfonate	80	4.396	4.396	0.000	87	675872	60.0	58.6	
25 Benzaldehyde	77	5.641	5.641	0.000	95	835089	60.0	52.5	
26 Phenol	94	5.769	5.763	0.006	85	1864628	60.0	60.3	
27 Aniline	93	5.769	5.763	0.006	73	2213932	60.0	61.6	
29 Bis(2-chloroethyl)ether	93	5.838	5.838	0.000	94	1216118	60.0	58.5	
30 2-Chlorophenol	128	5.902	5.897	0.005	97	1480324	60.0	62.4	
31 n-Decane	43	5.961	5.961	0.000	90	1392768	60.0	58.9	
32 1,3-Dichlorobenzene	146	6.057	6.057	0.000	97	1695651	60.0	59.3	
33 1,4-Dichlorobenzene	146	6.137	6.137	0.000	94	1745904	60.0	60.1	
34 Benzyl alcohol	108	6.266	6.266	0.000	92	884565	60.0	65.0	
35 1,2-Dichlorobenzene	146	6.298	6.298	0.000	97	1648963	60.0	59.0	
37 Indene	116	6.389	6.389	0.000	88	2410777	60.0	60.3	
36 2-Methylphenol	108	6.399	6.389	0.011	97	1313458	60.0	61.7	
38 2,2'-oxybis[1-chloropropan	45	6.410	6.410	0.000	93	1844607	60.0	58.6	
39 N-Nitrosopyrrolidine	100	6.511	6.501	0.010	89	637376	60.0	60.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.538	6.533	0.005	97	1932724	60.0	58.6	
41 N-Nitrosodi-n-propylamine	70	6.538	6.533	0.005	88	1005373	60.0	58.5	
42 4-Methylphenol	108	6.554	6.543	0.011	96	1379719	60.0	60.4	
45 Hexachloroethane	117	6.650	6.650	0.000	95	640945	60.0	60.3	
46 Nitrobenzene	77	6.714	6.709	0.005	87	1559236	60.0	59.7	
48 Isophorone	82	6.955	6.949	0.006	99	2801332	60.0	61.0	
49 2-Nitrophenol	139	7.040	7.035	0.005	94	842947	60.0	63.0	
50 2,4-Dimethylphenol	107	7.083	7.078	0.005	96	1488440	60.0	59.7	
52 Benzoic acid	122	7.195	7.136	0.059	88	788387	60.0	60.8	
53 Bis(2-chloroethoxy)methane	93	7.168	7.163	0.005	99	1676763	60.0	59.4	
54 2,4-Dichlorophenol	162	7.286	7.281	0.005	92	1389435	60.0	62.2	
56 1,2,4-Trichlorobenzene	180	7.366	7.366	0.000	93	1586228	60.0	58.0	
58 Naphthalene	128	7.446	7.441	0.005	97	4965155	60.0	61.6	
59 4-Chloroaniline	127	7.494	7.489	0.005	96	1969864	60.0	60.7	
60 2,6-Dichlorophenol	162	7.510	7.505	0.005	98	1339589	60.0	58.5	
62 Hexachlorobutadiene	225	7.574	7.569	0.005	92	1006637	60.0	59.2	
64 Caprolactam	113	7.826	7.799	0.027	80	405654	60.0	63.4	
67 4-Chloro-3-methylphenol	107	7.970	7.959	0.011	97	1341484	60.0	61.3	
69 2-Methylnaphthalene	142	8.130	8.125	0.005	92	3259918	60.0	59.1	
71 1-Methylnaphthalene	142	8.226	8.221	0.005	93	3059029	60.0	58.5	
72 Hexachlorocyclopentadiene	237	8.290	8.285	0.005	93	1184506	60.0	68.5	
73 1,2,4,5-Tetrachlorobenzene	216	8.296	8.290	0.006	95	1736846	60.0	60.1	
74 2,4,6-Trichlorophenol	196	8.403	8.397	0.006	91	1087861	60.0	64.4	
75 2,4,5-Trichlorophenol	196	8.445	8.435	0.010	95	1150302	60.0	65.0	
76 1,1'-Biphenyl	154	8.579	8.573	0.006	94	4195261	60.0	61.7	
77 2-Chloronaphthalene	162	8.611	8.600	0.011	93	3538163	60.0	60.9	
79 2-Nitroaniline	65	8.696	8.686	0.010	85	868253	60.0	63.6	
82 Dimethyl phthalate	163	8.857	8.846	0.011	100	3597804	60.0	61.9	
83 1,3-Dinitrobenzene	168	8.894	8.883	0.011	87	555337	60.0	64.3	
84 2,6-Dinitrotoluene	165	8.921	8.915	0.006	96	793914	60.0	62.2	
85 Acenaphthylene	152	9.017	9.006	0.011	97	5357795	60.0	64.3	
86 3-Nitroaniline	138	9.097	9.081	0.016	93	816217	60.0	64.6	
88 Acenaphthene	153	9.182	9.177	0.005	93	3269710	60.0	59.9	
87 2,4-Dinitrophenol	184	9.193	9.182	0.011	86	1099043	120.0	122.7	
89 4-Nitrophenol	109	9.247	9.231	0.016	91	841931	120.0	136.6	
91 2,4-Dinitrotoluene	165	9.316	9.305	0.011	86	1034956	60.0	62.1	
93 Dibenzofuran	168	9.353	9.343	0.010	98	4911542	60.0	61.8	
96 2,3,4,6-Tetrachlorophenol	232	9.423	9.418	0.005	69	1008538	60.0	65.3	
95 2,3,5,6-Tetrachlorophenol	232	9.466	9.460	0.006	91	986566	60.0	64.3	
97 2-Naphthylamine	143	9.498	9.487	0.011	97	3145998	60.0	62.4	
98 Diethyl phthalate	149	9.535	9.519	0.016	98	3302005	60.0	59.9	
99 Hexadecane	57	9.535	9.524	0.011	74	2111715	60.0	57.1	
100 4-Chlorophenyl phenyl ether	204	9.663	9.658	0.005	87	1964308	60.0	60.0	
101 4-Nitroaniline	138	9.690	9.674	0.016	86	800043	60.0	64.9	
103 Fluorene	166	9.685	9.674	0.011	94	3725886	60.0	60.5	
104 4,6-Dinitro-2-methylphenol	198	9.717	9.706	0.011	94	1505207	120.0	133.2	
105 N-Nitrosodiphenylamine	169	9.775	9.765	0.010	60	2743169	60.0	61.1	
90 1,2-Diphenylhydrazine	77	9.818	9.808	0.010	41	3624759	60.0	63.6	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.139	10.128	0.011	64	1100658	60.0	61.0	
112 Hexachlorobenzene	284	10.224	10.219	0.005	95	1038668	60.0	60.2	
113 Atrazine	200	10.267	10.256	0.011	95	1055407	60.0	62.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.406	10.401	0.005	94	1374435	120.0	123.9	
115 n-Octadecane	57	10.411	10.406	0.005	96	2170741	60.0	58.1	
121 Phenanthrene	178	10.636	10.625	0.011	95	5681389	60.0	61.7	
122 Anthracene	178	10.689	10.678	0.011	95	5781549	60.0	62.5	
124 Carbazole	167	10.844	10.833	0.011	95	4891086	60.0	62.0	
126 Di-n-butyl phthalate	149	11.170	11.159	0.011	100	5827666	60.0	65.7	
131 Fluoranthene	202	12.046	12.035	0.011	96	6066005	60.0	63.0	
132 Benzidine	184	12.190	12.179	0.011	99	2507223	60.0	62.6	
133 Pyrene	202	12.372	12.361	0.011	96	6131342	60.0	61.4	
138 Butyl benzyl phthalate	149	13.307	13.291	0.016	95	2241368	60.0	66.2	
144 3,3'-Dichlorobenzidine	252	14.311	14.290	0.021	66	1766295	60.0	65.3	
145 Bis(2-ethylhexyl) phthalat	149	14.359	14.343	0.016	94	3227520	60.0	69.3	
146 Benzo[a]anthracene	228	14.380	14.359	0.021	84	5495346	60.0	60.1	
147 Chrysene	228	14.450	14.429	0.021	93	5347525	60.0	61.0	
150 Di-n-octyl phthalate	149	15.668	15.647	0.021	99	5465557	60.0	69.7	
151 7,12-Dimethylbenz(a)anthra	256	16.517	16.485	0.032	74	2294866	60.0	62.4	
152 Benzo[b]fluoranthene	252	16.539	16.507	0.032	86	4917828	60.0	60.8	
153 Benzo[k]fluoranthene	252	16.592	16.565	0.027	85	5077882	60.0	62.6	
219 Benzo[e]pyrene	252	17.100	17.068	0.032	0	4482963	60.0	61.0	
154 Benzo[a]pyrene	252	17.201	17.174	0.027	71	4587159	60.0	62.8	
157 Indeno[1,2,3-cd]pyrene	276	19.691	19.664	0.027	1	4963580	60.0	64.5	M
158 Dibenz(a,h)anthracene	278	19.733	19.691	0.042	68	4208157	60.0	64.3	
159 Benzo[g,h,i]perylene	276	20.396	20.348	0.048	94	4139128	60.0	63.4	
S 197 Methyl Phenols, Total	108				0		120.0	122.2	
S 199 Total Cresols	108				0		120.0	122.2	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD60i\_00005

Amount Added: 1.00

Units: mL

Report Date: 04-Aug-2014 06:19:22

Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728009.D

Injection Date: 28-Jul-2014 07:29:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 9

Client ID:

Injection Vol: 2.0 ul

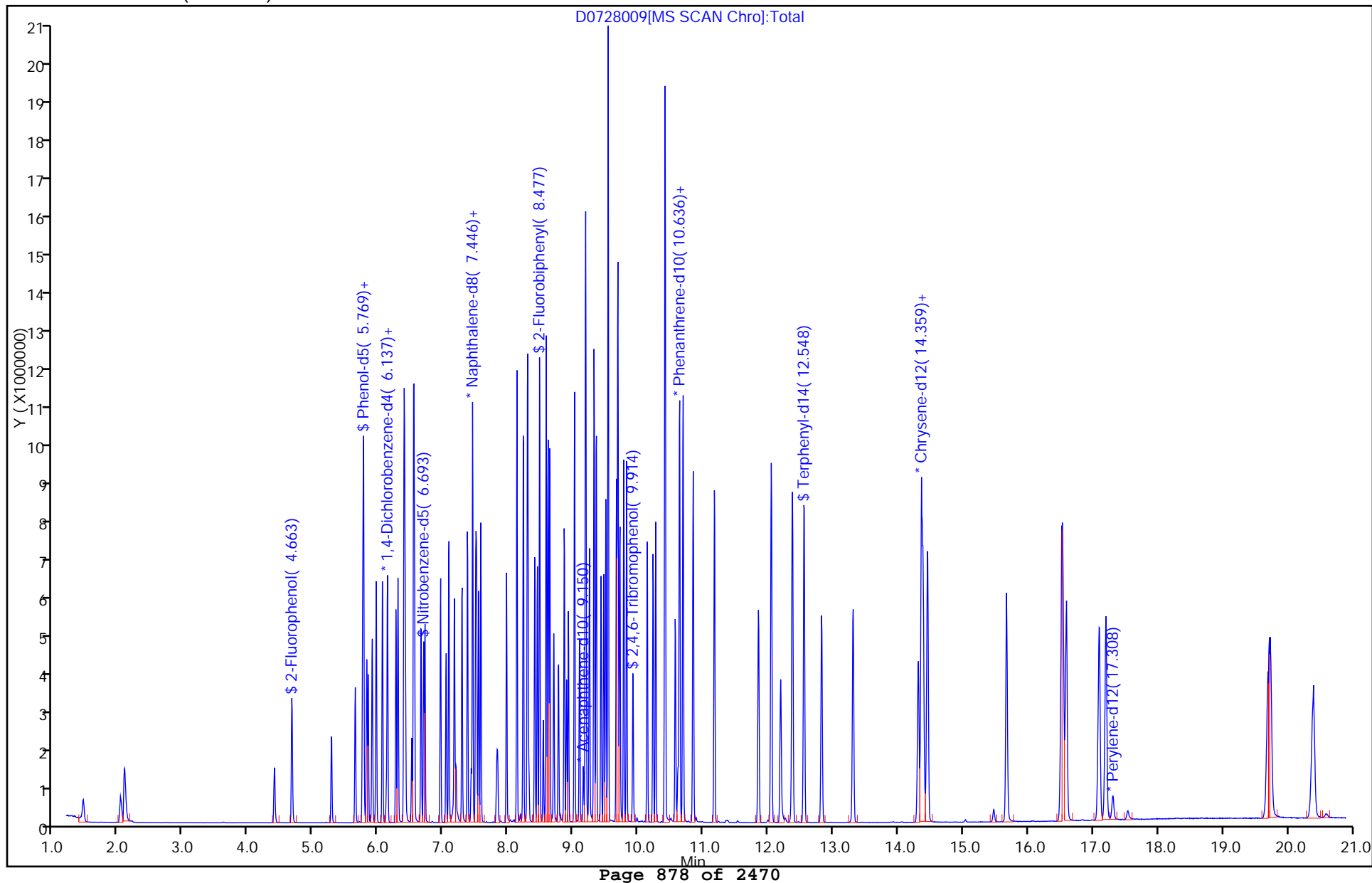
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728009.D

Injection Date: 28-Jul-2014 07:29:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 8

Worklist Smp#: 9

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

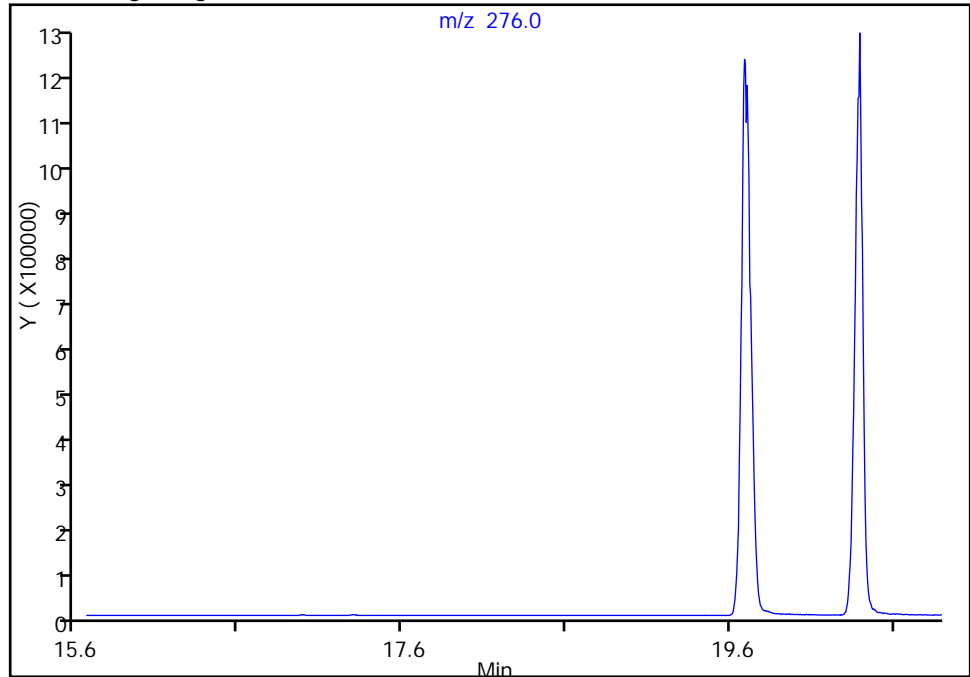
Detector: MS SCAN

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Not Detected

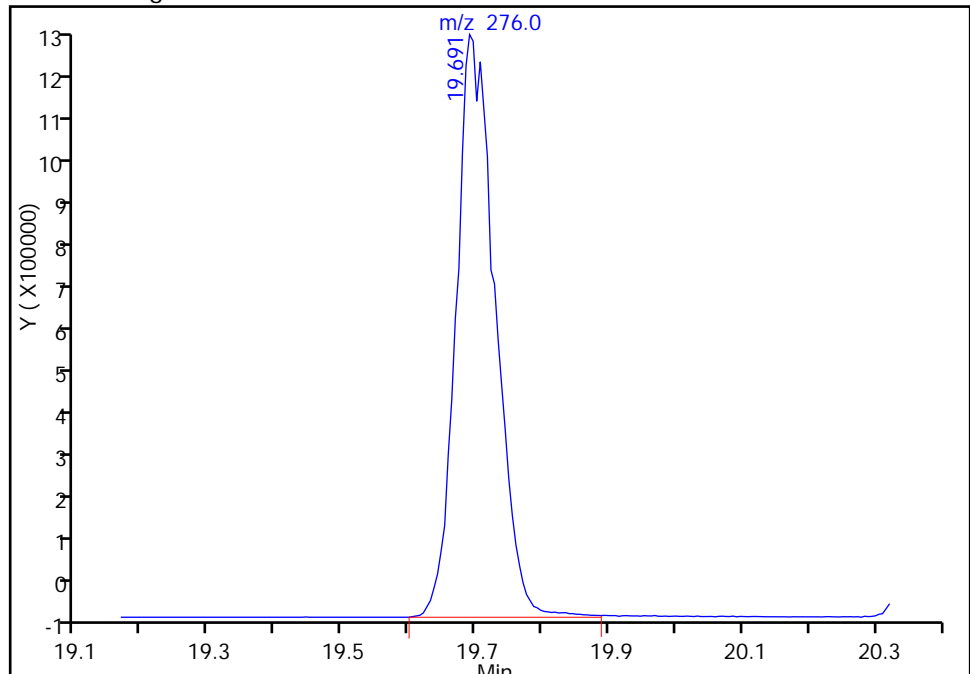
Expected RT: 19.66

## Processing Integration Results



RT: 19.69  
Response: 4963580  
Amount: 64.465006

## Manual Integration Results



Reviewer: piccolinov, 28-Jul-2014 08:29:42

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 28-Jul-2014 07:56:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-010  
 Misc. Info.: IC  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:19:22 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: piccolinov

Date: 28-Jul-2014 08:50:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.127	6.116	0.011	96	140548	8.00	8.00	
* 2 Naphthalene-d8	136	7.430	7.420	0.010	99	576264	8.00	8.00	
* 3 Acenaphthene-d10	164	9.156	9.145	0.011	91	354206	8.00	8.00	
* 4 Phenanthrene-d10	188	10.614	10.598	0.016	97	605637	8.00	8.00	
* 5 Chrysene-d12	240	14.412	14.380	0.032	96	598436	8.00	8.00	
* 6 Perylene-d12	264	17.319	17.287	0.032	96	483121	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.674	4.668	0.006	93	1549592	80.0	83.6	
\$ 8 Phenol-d5	99	5.763	5.747	0.016	98	2145446	80.0	78.1	
\$ 9 Nitrobenzene-d5	82	6.698	6.688	0.010	88	2040636	80.0	81.9	
\$ 10 2-Fluorobiphenyl	172	8.483	8.472	0.011	99	5096937	80.0	83.1	
\$ 11 2,4,6-Tribromophenol	330	9.925	9.909	0.016	94	566217	80.0	87.8	
\$ 12 Terphenyl-d14	244	12.559	12.537	0.022	97	5705867	80.0	83.0	
13 1,4-Dioxane	88	1.463	1.463	0.000	92	493762	80.0	74.5	
14 N-Nitrosodimethylamine	74	2.045	2.035	0.010	91	754278	80.0	82.1	
15 Pyridine	79	2.104	2.109	-0.005	96	1443919	80.0	87.3	
21 Methyl methanesulfonate	80	4.406	4.396	0.010	87	875517	80.0	77.8	
25 Benzaldehyde	77	5.646	5.641	0.005	96	925983	80.0	59.7	
26 Phenol	94	5.774	5.763	0.011	87	2400282	80.0	79.6	
27 Aniline	93	5.774	5.763	0.011	89	2825452	80.0	80.5	
29 Bis(2-chloroethyl)ether	93	5.849	5.838	0.011	95	1579735	80.0	77.9	
30 2-Chlorophenol	128	5.908	5.897	0.011	97	1870292	80.0	80.7	
31 n-Decane	43	5.972	5.961	0.011	90	1797119	80.0	77.8	
32 1,3-Dichlorobenzene	146	6.068	6.057	0.011	97	2188336	80.0	78.4	
33 1,4-Dichlorobenzene	146	6.143	6.137	0.006	95	2248799	80.0	79.3	
34 Benzyl alcohol	108	6.276	6.266	0.010	92	1128151	80.0	84.8	
35 1,2-Dichlorobenzene	146	6.303	6.298	0.005	98	2117813	80.0	77.6	
37 Indene	116	6.394	6.389	0.006	87	3068163	80.0	78.6	
36 2-Methylphenol	108	6.410	6.389	0.022	97	1637317	80.0	78.8	
38 2,2'-oxybis[1-chloropropan	45	6.415	6.410	0.005	93	2346623	80.0	76.3	
39 N-Nitrosopyrrolidine	100	6.522	6.501	0.021	90	821281	80.0	79.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
40 Acetophenone	105	6.543	6.533	0.010	91	2431801	80.0	75.5	
41 N-Nitrosodi-n-propylamine	70	6.549	6.533	0.016	77	1248217	80.0	74.4	
42 4-Methylphenol	108	6.559	6.543	0.016	96	1764999	80.0	79.2	
45 Hexachloroethane	117	6.655	6.650	0.005	95	818136	80.0	78.9	
46 Nitrobenzene	77	6.720	6.709	0.011	87	2013919	80.0	80.6	
48 Isophorone	82	6.960	6.949	0.011	100	3589983	80.0	81.8	
49 2-Nitrophenol	139	7.045	7.035	0.010	94	1080614	80.0	84.4	
50 2,4-Dimethylphenol	107	7.088	7.078	0.010	96	1945278	80.0	81.6	
52 Benzoic acid	122	7.206	7.136	0.070	87	1027292	80.0	81.6	
53 Bis(2-chloroethoxy)methane	93	7.174	7.163	0.011	99	2124302	80.0	78.6	
54 2,4-Dichlorophenol	162	7.291	7.281	0.010	92	1771758	80.0	82.9	
56 1,2,4-Trichlorobenzene	180	7.371	7.366	0.005	92	2071883	80.0	79.2	
58 Naphthalene	128	7.451	7.441	0.010	96	6464956	80.0	83.9	
59 4-Chloroaniline	127	7.500	7.489	0.011	96	2480233	80.0	80.0	
60 2,6-Dichlorophenol	162	7.516	7.505	0.011	98	1733757	80.0	79.2	
62 Hexachlorobutadiene	225	7.580	7.569	0.011	92	1286669	80.0	79.1	
64 Caprolactam	113	7.836	7.799	0.037	81	519613	80.0	84.9	
67 4-Chloro-3-methylphenol	107	7.975	7.959	0.016	96	1717887	80.0	82.1	
69 2-Methylnaphthalene	142	8.135	8.125	0.010	93	4232321	80.0	80.3	
71 1-Methylnaphthalene	142	8.231	8.221	0.010	93	3940798	80.0	78.8	
72 Hexachlorocyclopentadiene	237	8.296	8.285	0.011	93	1544642	80.0	92.2	
73 1,2,4,5-Tetrachlorobenzene	216	8.301	8.290	0.011	95	2213114	80.0	79.1	
74 2,4,6-Trichlorophenol	196	8.408	8.397	0.011	91	1386821	80.0	84.9	
75 2,4,5-Trichlorophenol	196	8.450	8.435	0.015	95	1474840	80.0	86.1	
76 1,1'-Biphenyl	154	8.584	8.573	0.011	93	5498102	80.0	83.5	
77 2-Chloronaphthalene	162	8.616	8.600	0.016	93	4579192	80.0	81.4	
79 2-Nitroaniline	65	8.702	8.686	0.016	85	1094953	80.0	82.9	
82 Dimethyl phthalate	163	8.862	8.846	0.016	99	4626311	80.0	82.3	
83 1,3-Dinitrobenzene	168	8.899	8.883	0.016	90	717506	80.0	85.8	
84 2,6-Dinitrotoluene	165	8.931	8.915	0.016	96	1016296	80.0	82.3	
85 Acenaphthylene	152	9.022	9.006	0.016	97	6885901	80.0	85.5	
86 3-Nitroaniline	138	9.102	9.081	0.021	93	1040186	80.0	85.0	
88 Acenaphthene	153	9.188	9.177	0.011	94	4294302	80.0	81.3	
87 2,4-Dinitrophenol	184	9.198	9.182	0.016	85	1433503	160.0	164.2	
89 4-Nitrophenol	109	9.252	9.231	0.021	91	1055741	160.0	177.0	
91 2,4-Dinitrotoluene	165	9.321	9.305	0.016	86	1336381	80.0	82.8	
93 Dibenzofuran	168	9.353	9.343	0.010	98	6388179	80.0	83.0	
96 2,3,4,6-Tetrachlorophenol	232	9.428	9.418	0.010	68	1297650	80.0	86.8	
95 2,3,5,6-Tetrachlorophenol	232	9.471	9.460	0.011	91	1280872	80.0	86.2	
97 2-Naphthylamine	143	9.503	9.487	0.016	97	3973407	80.0	81.5	
98 Diethyl phthalate	149	9.540	9.519	0.021	98	4214861	80.0	79.0	
99 Hexadecane	57	9.540	9.524	0.016	78	2662354	80.0	75.2	
100 4-Chlorophenyl phenyl ethe	204	9.669	9.658	0.010	85	2533502	80.0	79.9	
101 4-Nitroaniline	138	9.695	9.674	0.021	87	1038100	80.0	87.0	
103 Fluorene	166	9.690	9.674	0.016	94	4805518	80.0	80.6	
104 4,6-Dinitro-2-methylphenol	198	9.722	9.706	0.016	94	1930518	160.0	179.1	
105 N-Nitrosodiphenylamine	169	9.781	9.765	0.016	60	3514663	80.0	82.1	
90 1,2-Diphenylhydrazine	77	9.823	9.808	0.015	41	4558896	80.0	83.8	
57 Azobenzene	77		9.808					ND	
110 4-Bromophenyl phenyl ether	248	10.144	10.128	0.016	63	1411732	80.0	82.0	
112 Hexachlorobenzene	284	10.229	10.219	0.010	95	1344007	80.0	81.6	
113 Atrazine	200	10.272	10.256	0.016	95	1360883	80.0	84.3	



Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.416	10.401	0.015	95	1774177	160.0	167.2	
115 n-Octadecane	57	10.416	10.406	0.010	96	2734956	80.0	75.0	
121 Phenanthrene	178	10.641	10.625	0.016	95	7309630	80.0	83.2	
122 Anthracene	178	10.694	10.678	0.016	94	7698691	80.0	87.2	
124 Carbazole	167	10.849	10.833	0.016	94	6498122	80.0	86.4	
126 Di-n-butyl phthalate	149	11.175	11.159	0.016	99	7637525	80.0	90.2	
131 Fluoranthene	202	12.056	12.035	0.021	96	7832368	80.0	85.2	
132 Benzidine	184	12.201	12.179	0.022	98	2888583	80.0	74.6	
133 Pyrene	202	12.382	12.361	0.021	96	7936822	80.0	82.2	
138 Butyl benzyl phthalate	149	13.317	13.291	0.026	94	2869670	80.0	87.6	
144 3,3'-Dichlorobenzidine	252	14.322	14.290	0.032	66	2324488	80.0	88.8	
145 Bis(2-ethylhexyl) phthalat	149	14.364	14.343	0.021	95	4134691	80.0	91.8	
146 Benzo[a]anthracene	228	14.391	14.359	0.032	83	7309072	80.0	82.7	
147 Chrysene	228	14.460	14.429	0.031	93	7053946	80.0	83.3	
150 Di-n-octyl phthalate	149	15.684	15.647	0.037	98	7244732	80.0	94.3	
151 7,12-Dimethylbenz(a)anthra	256	16.528	16.485	0.043	73	3071974	80.0	85.3	
152 Benzo[b]fluoranthene	252	16.549	16.507	0.042	86	6858911	80.0	86.6	
153 Benzo[k]fluoranthene	252	16.603	16.565	0.038	85	6605684	80.0	83.1	
219 Benzo[e]pyrene	252	17.105	17.068	0.037	0	6017420	80.0	83.6	
154 Benzo[a]pyrene	252	17.217	17.174	0.043	73	6248646	80.0	87.3	
157 Indeno[1,2,3-cd]pyrene	276	19.712	19.664	0.048	82	6795471	80.0	90.1	M
158 Dibenz(a,h)anthracene	278	19.749	19.691	0.058	67	5853511	80.0	91.3	
159 Benzo[g,h,i]perylene	276	20.406	20.348	0.058	93	5663721	80.0	88.6	
S 197 Methyl Phenols, Total	108				0		160.0	158.0	
S 199 Total Cresols	108				0		160.0	158.0	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

### Reagents:

SVTAPSTD80i\_00005

Amount Added: 1.00

Units: mL



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D

Injection Date: 28-Jul-2014 07:56:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: IC

Worklist Smp#: 10

Client ID:

Injection Vol: 2.0 ul

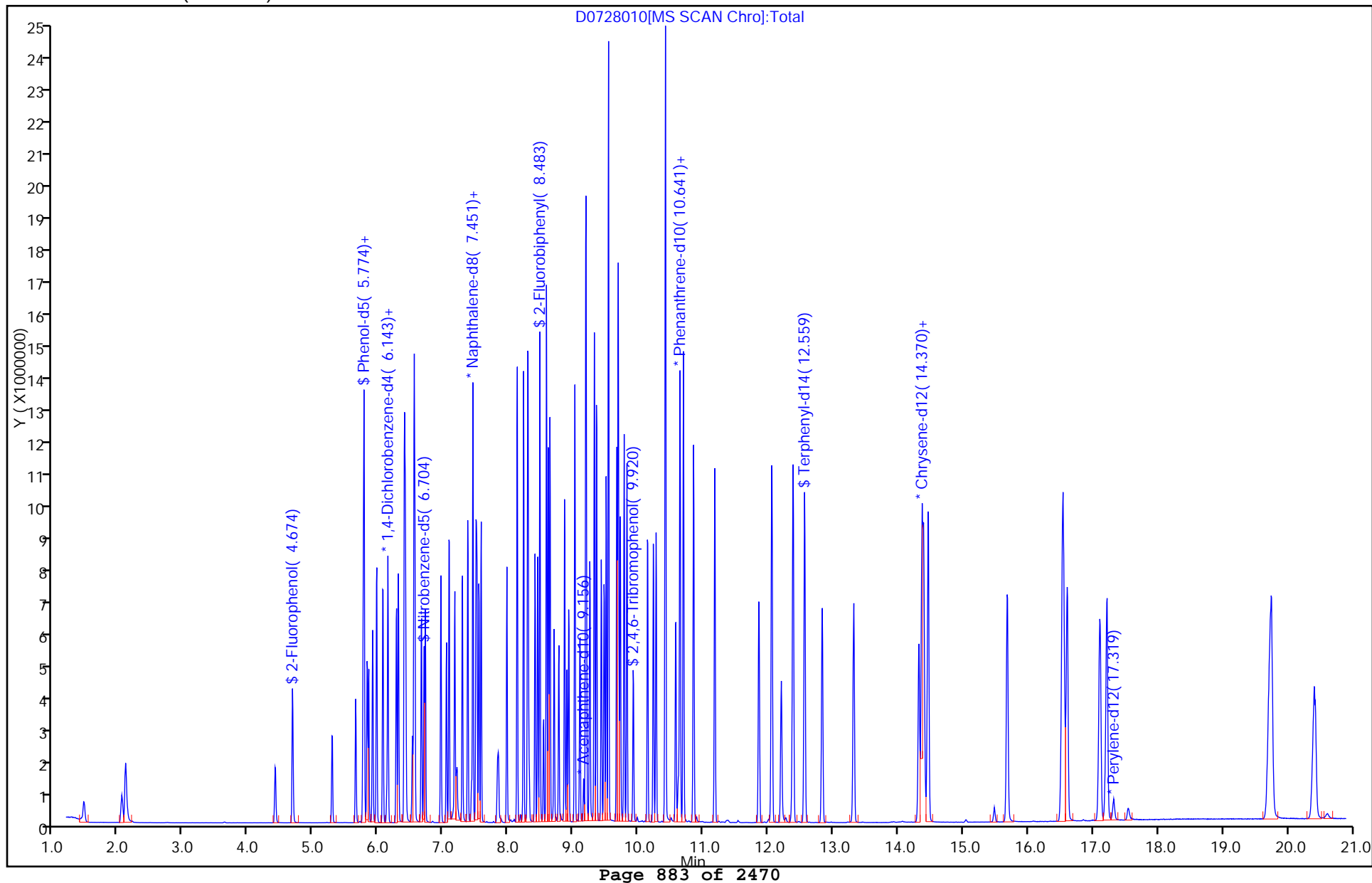
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D

Injection Date: 28-Jul-2014 07:56:30

Instrument ID: CH732

Lims ID: IC

Client ID:

Operator ID: 003200

ALS Bottle#: 9

Worklist Smp#: 10

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

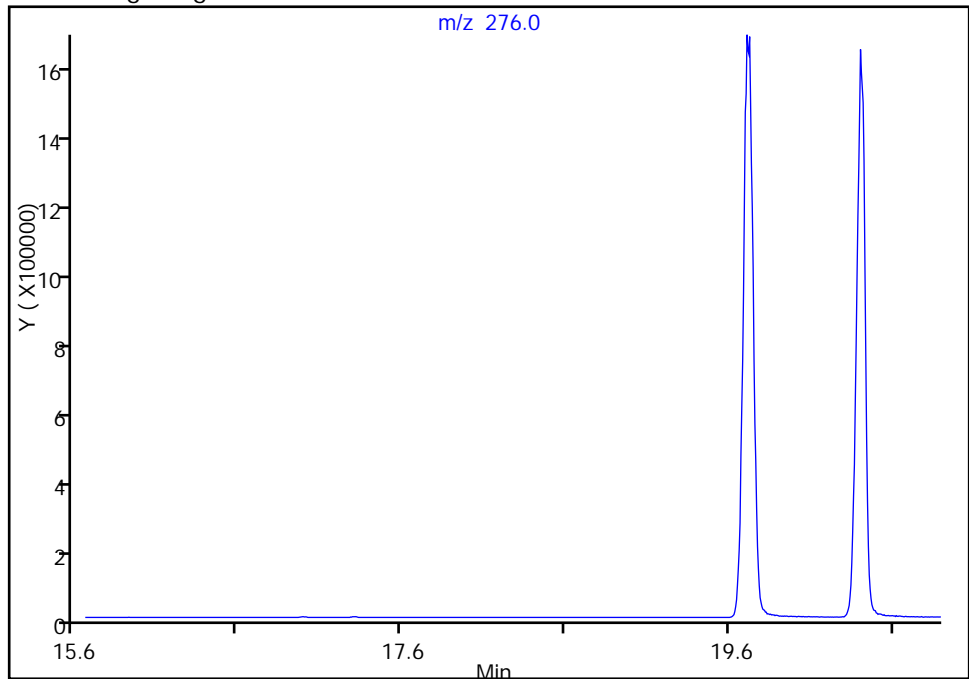
Detector: MS SCAN

## 157 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

## Processing Integration Results

Not Detected

Expected RT: 19.66

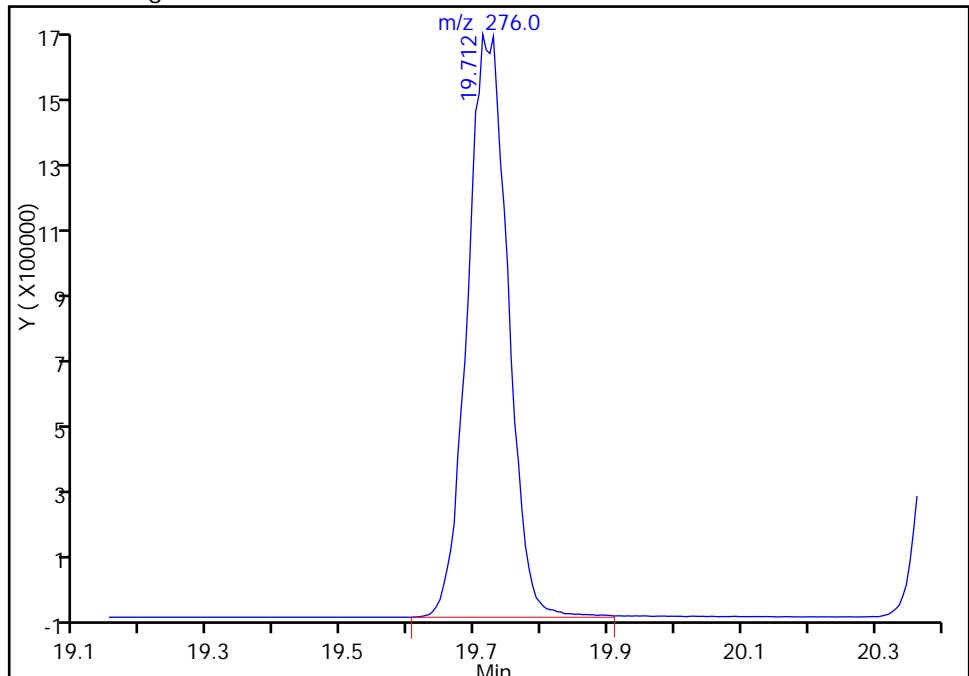


## Manual Integration Results

RT: 19.71

Response: 6795471

Amount: 90.089166



Reviewer: piccolinov, 28-Jul-2014 08:31:57

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 180-122953/3 Calibration Date: 10/28/2014 12:23

Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22

GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47

Lab File ID: V1028003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4170	0.5757	0.0100	6.90	5.00	38.1*	20.0
N-Nitrosodimethylamine	Ave	0.5429	0.7471	0.0100	6.88	5.00	37.6*	20.0
Pyridine	Ave	1.036	1.392	0.0100	6.72	5.00	34.4*	20.0
Methyl methanesulfonate	Ave	0.7381	0.9445	0.0100	6.40	5.00	28.0*	20.0
Benzaldehyde	Ave	0.8969	1.075	0.0100	5.99	5.00	19.8	20.0
Phenol	Ave	1.734	1.658	0.8000	4.78	5.00	-4.4	20.0
Aniline	Ave	1.953	2.035	0.0100	5.21	5.00	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.167	1.156	0.7000	4.95	5.00	-1.0	20.0
2-Chlorophenol	Ave	1.338	1.325	0.8000	4.95	5.00	-1.0	20.0
1,3-Dichlorobenzene	Ave	1.557	1.468	0.0100	4.72	5.00	-5.7	20.0
1,4-Dichlorobenzene	Ave	1.574	1.494	0.0100	4.75	5.00	-5.1	20.0
Benzyl alcohol	Ave	0.7987	0.6425	0.0100	4.02	5.00	-19.6	20.0
1,2-Dichlorobenzene	Ave	1.520	1.413	0.0100	4.65	5.00	-7.0	20.0
2-Methylphenol	Ave	1.179	1.158	0.7000	4.91	5.00	-1.8	20.0
Indene	Ave	2.144	2.064	0.0100	4.82	5.00	-3.7	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.544	1.456	0.0100	4.72	5.00	-5.7	20.0
N-Nitrosopyrrolidine	Ave	0.5168	0.5089	0.0100	4.92	5.00	-1.5	20.0
N-Nitrosodi-n-propylamine	Ave	0.8622	0.9325	0.5000	5.41	5.00	8.2	20.0
Acetophenone	Ave	1.750	1.807	0.0100	5.25	5.00	3.2	20.0
Methylphenol, 3 & 4	Ave	1.241	1.170	0.6000	4.73	5.00	-5.7	20.0
Hexachloroethane	Ave	0.6588	0.6629	0.3000	5.03	5.00	0.6	20.0
Nitrobenzene	Ave	0.3573	0.4360	0.2000	6.10	5.00	22.0*	20.0
Isophorone	Ave	0.5844	0.6649	0.4000	5.69	5.00	13.8	20.0
2-Nitrophenol	Ave	0.1686	0.1777	0.1000	5.27	5.00	5.4	20.0
2,4-Dimethylphenol	Ave	0.3474	0.3659	0.2000	5.27	5.00	5.3	20.0
Benzoic acid	Qua		0.1553	0.0100	7.09	5.00	41.8*	20.0
Bis(2-chloroethoxy)methane	Ave	0.3685	0.3708	0.3000	5.03	5.00	0.6	20.0
2,4-Dichlorophenol	Ave	0.2812	0.2767	0.2000	4.92	5.00	-1.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3283	0.3297	0.0100	5.02	5.00	0.4	20.0
Naphthalene	Ave	1.054	0.9925	0.7000	4.71	5.00	-5.8	20.0
4-Chloroaniline	Ave	0.4210	0.4190	0.0100	4.98	5.00	-0.5	20.0
2,6-Dichlorophenol	Ave	0.2790	0.2869	0.0100	5.14	5.00	2.8	20.0
Hexachlorobutadiene	Ave	0.1954	0.2180	0.0100	5.58	5.00	11.6	20.0
Caprolactam	Ave	0.0764	0.0806	0.0100	5.28	5.00	5.5	20.0
4-Chloro-3-methylphenol	Ave	0.2818	0.2850	0.2000	5.06	5.00	1.2	20.0
2-Methylnaphthalene	Ave	0.7100	0.6627	0.4000	4.67	5.00	-6.7	20.0
1-Methylnaphthalene	Ave	0.6628	0.6009	0.0100	4.53	5.00	-9.3	20.0
Hexachlorocyclopentadiene	Ave	0.3902	0.4582	0.0500	5.87	5.00	17.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5748	0.6522	0.0100	5.67	5.00	13.5	20.0
2,4,6-Trichlorophenol	Ave	0.3358	0.3945	0.2000	5.87	5.00	17.5	20.0
2,4,5-Trichlorophenol	Ave	0.3647	0.3919	0.2000	5.37	5.00	7.4	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 180-122953/3 Calibration Date: 10/28/2014 12:23

Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22

GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47

Lab File ID: V1028003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.464	1.469	0.0100	5.02	5.00	0.3	20.0
2-Chloronaphthalene	Ave	1.241	1.272	0.8000	5.13	5.00	2.5	20.0
2-Nitroaniline	Ave	0.3040	0.4311	0.0100	6.86	5.00	41.8*	20.0
Dimethyl phthalate	Ave	1.185	1.275	0.0100	5.38	5.00	7.6	20.0
1,3-Dinitrobenzene	Ave	0.1841	0.1958	0.0100	5.32	5.00	6.4	20.0
2,6-Dinitrotoluene	Ave	0.2641	0.2759	0.2000	5.22	5.00	4.5	20.0
Acenaphthylene	Ave	1.733	1.736	0.9000	5.01	5.00	0.2	20.0
3-Nitroaniline	Ave	0.2866	0.2977	0.0100	5.19	5.00	3.9	20.0
2,4-Dinitrophenol	Lin1		0.1453	0.0100	10.3	10.0	2.8	20.0
Acenaphthene	Ave	1.123	1.107	0.9000	4.93	5.00	-1.4	20.0
4-Nitrophenol	Ave	0.1821	0.2800	0.0100	15.4	10.0	53.7*	20.0
2,4-Dinitrotoluene	Ave	0.3508	0.3762	0.2000	5.36	5.00	7.2	20.0
Dibenzofuran	Ave	1.668	1.594	0.8000	4.78	5.00	-4.5	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3113	0.3249	0.0100	5.22	5.00	4.4	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3193	0.3147	0.0100	4.93	5.00	-1.4	20.0
2-Naphthylamine	Ave	1.101	1.109	0.0100	5.04	5.00	0.8	20.0
Diethyl phthalate	Ave	1.182	1.389	0.0100	5.88	5.00	17.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6352	0.6498	0.4000	5.12	5.00	2.3	20.0
4-Nitroaniline	Ave	0.2884	0.3004	0.0100	5.21	5.00	4.2	20.0
Fluorene	Ave	1.288	1.278	0.9000	4.96	5.00	-0.8	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1354	0.0100	10.9	10.0	8.8	20.0
N-Nitrosodiphenylamine	Ave	0.5906	0.6119	0.0100	5.18	5.00	3.6	20.0
1,2-Diphenylhydrazine (as Azobenzene)	Ave	0.8217	1.019	0.0100	6.20	5.00	24.0*	20.0
4-Bromophenyl phenyl ether	Ave	0.2234	0.2658	0.1000	5.95	5.00	19.0	20.0
Hexachlorobenzene	Ave	0.2369	0.2750	0.1000	5.80	5.00	16.1	20.0
Atrazine	Ave	0.2052	0.2513	0.0100	6.12	5.00	22.5*	20.0
Pentachlorophenol	Lin1		0.1607	0.0500	11.3	10.0	12.6	20.0
Phenanthrene	Ave	1.164	1.148	0.7000	4.93	5.00	-1.4	20.0
Anthracene	Ave	1.172	1.200	0.7000	5.12	5.00	2.3	20.0
Carbazole	Ave	1.039	1.054	0.0100	5.07	5.00	1.5	20.0
Di-n-butyl phthalate	Ave	1.157	1.347	0.0100	5.82	5.00	16.4	20.0
Fluoranthene	Ave	1.194	1.268	0.6000	5.31	5.00	6.2	20.0
Benzdine	Ave	0.5273	0.4842	0.0100	4.59	5.00	-8.2	20.0
Pyrene	Ave	1.280	1.231	0.6000	4.81	5.00	-3.8	20.0
Butyl benzyl phthalate	Ave	0.4711	0.5196	0.0100	5.51	5.00	10.3	20.0
3,3'-Dichlorobenzidine	Ave	0.3511	0.3832	0.0100	5.46	5.00	9.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.6314	0.7219	0.0100	5.72	5.00	14.3	20.0
Benzo[a]anthracene	Ave	1.085	1.053	0.8000	4.85	5.00	-2.9	20.0
Chrysene	Ave	1.047	1.006	0.7000	4.80	5.00	-3.9	20.0
Di-n-octyl phthalate	Ave	1.295	1.467	0.0100	5.62	5.00	13.3	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-122953/3 Calibration Date: 10/28/2014 12:23  
 Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22  
 GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47  
 Lab File ID: V1028003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
7,12-Dimethylbenz(a)anthracene	Ave	0.5871	0.5962	0.0100	5.08	5.00	1.5	20.0
Benzo[b]fluoranthene	Ave	1.405	1.388	0.7000	4.94	5.00	-1.2	20.0
Benzo[k]fluoranthene	Ave	1.290	1.270	0.7000	4.92	5.00	-1.6	20.0
Benzo[a]pyrene	Ave	1.207	1.207	0.7000	5.00	5.00	-0.0	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.252	1.179	0.5000	4.71	5.00	-5.8	20.0
Dibenz(a,h)anthracene	Ave	1.077	1.015	0.4000	4.71	5.00	-5.8	20.0
Benzo[g,h,i]perylene	Ave	1.043	0.999	0.5000	4.79	5.00	-4.2	20.0
2-Fluorophenol (Surr)	Ave	1.131	1.279		5.66	5.00	13.2	20.0
Phenol-d5 (Surr)	Ave	1.498	1.549		5.17	5.00	3.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3658	0.4287		5.86	5.00	17.2	20.0
2-Fluorobiphenyl	Ave	1.377	1.380		5.01	5.00	0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0922	0.1055	0.0100	5.72	5.00	14.4	20.0
Terphenyl-d14 (Surr)	Ave	0.8488	0.8717		5.13	5.00	2.7	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028003.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 28-Oct-2014 12:23:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004041-003  
 Misc. Info.: CCVIS  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:34 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 28-Oct-2014 14:02:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.211	6.211	0.000	92	142836	8.00	8.00	
* 2 Naphthalene-d8	136	7.418	7.418	0.000	99	498190	8.00	8.00	
* 3 Acenaphthene-d10	164	9.041	9.041	0.000	91	255283	8.00	8.00	
* 4 Phenanthrene-d10	188	10.414	10.414	0.000	97	390317	8.00	8.00	
* 5 Chrysene-d12	240	13.907	13.907	0.000	96	416247	8.00	8.00	
* 6 Perylene-d12	264	16.829	16.829	0.000	98	315140	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.870	4.870	0.000	93	228430	10.0	11.3	
\$ 8 Phenol-d5	99	5.863	5.863	0.000	93	276528	10.0	10.3	
\$ 9 Nitrobenzene-d5	82	6.739	6.739	0.000	93	266988	10.0	11.7	
\$ 10 2-Fluorobiphenyl	172	8.406	8.406	0.000	99	440258	10.0	10.0	
\$ 11 2,4,6-Tribromophenol	330	9.768	9.768	0.000	82	51479	10.0	11.4	
\$ 12 Terphenyl-d14	244	12.171	12.171	0.000	98	453558	10.0	10.3	
13 1,4-Dioxane	88	1.692	1.692	0.000	90	102784	10.0	13.8	
14 N-Nitrosodimethylamine	74	2.328	2.328	0.000	88	133392	10.0	13.8	
15 Pyridine	79	2.386	2.386	0.000	97	248504	10.0	13.4	
22 Methyl methanesulfonate	80	4.624	4.624	0.000	91	168638	10.0	12.8	
26 Benzaldehyde	77	5.767	5.767	0.000	92	191875	10.0	12.0	
27 Phenol	94	5.874	5.874	0.000	96	296063	10.0	9.56	
28 Aniline	93	5.885	5.885	0.000	96	363331	10.0	10.4	
29 Bis(2-chloroethyl)ether	93	5.954	5.954	0.000	93	206445	10.0	9.90	
31 2-Chlorophenol	128	6.008	6.008	0.000	95	236497	10.0	9.90	
32 n-Decane	43	6.066	6.066	0.000	86	225496	10.0	10.4	
33 1,3-Dichlorobenzene	146	6.157	6.157	0.000	94	262158	10.0	9.43	
34 1,4-Dichlorobenzene	146	6.227	6.227	0.000	89	266823	10.0	9.49	
36 Benzyl alcohol	108	6.344	6.344	0.000	87	114719	10.0	8.04	
37 1,2-Dichlorobenzene	146	6.376	6.376	0.000	91	252262	10.0	9.30	
38 2-Methylphenol	108	6.456	6.456	0.000	95	206681	10.0	9.82	
39 Indene	116	6.462	6.462	0.000	91	368602	10.0	9.63	
40 2,2'-oxybis[1-chloropropan	45	6.478	6.478	0.000	87	259945	10.0	9.43	
41 N-Nitrosopyrrolidine	100	6.563	6.563	0.000	79	90868	10.0	9.85	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.590	6.590	0.000	73	166500	10.0	10.8	
43 Acetophenone	105	6.595	6.595	0.000	81	322623	10.0	10.5	
45 4-Methylphenol	108	6.595	6.595	0.000	91	208961	10.0	9.46	
47 Hexachloroethane	117	6.707	6.707	0.000	91	118351	10.0	10.1	
48 Nitrobenzene	77	6.755	6.755	0.000	90	271507	10.0	12.2	
50 Isophorone	82	6.974	6.974	0.000	98	414045	10.0	11.4	
51 2-Nitrophenol	139	7.060	7.060	0.000	90	110673	10.0	10.5	
52 2,4-Dimethylphenol	107	7.092	7.092	0.000	97	227831	10.0	10.5	
56 Benzoic acid	122	7.140	7.140	0.000	92	96683	10.0	14.2	
55 Bis(2-chloroethoxy)methane	93	7.172	7.172	0.000	97	230903	10.0	10.1	
57 2,4-Dichlorophenol	162	7.284	7.284	0.000	96	172294	10.0	9.84	
59 1,2,4-Trichlorobenzene	180	7.364	7.364	0.000	91	205303	10.0	10.0	
61 Azobenzene	77		7.370					ND	
60 Naphthalene	128	7.439	7.439	0.000	98	618076	10.0	9.42	
62 4-Chloroaniline	127	7.476	7.476	0.000	93	260936	10.0	9.95	
63 2,6-Dichlorophenol	162	7.492	7.492	0.000	91	178685	10.0	10.3	
64 Hexachlorobutadiene	225	7.556	7.556	0.000	95	135739	10.0	11.2	
67 Caprolactam	113	7.765	7.765	0.000	76	50184	10.0	10.6	
70 4-Chloro-3-methylphenol	107	7.909	7.909	0.000	92	177503	10.0	10.1	
72 2-Methylnaphthalene	142	8.075	8.075	0.000	90	412701	10.0	9.33	
75 1-Methylnaphthalene	142	8.171	8.171	0.000	91	374195	10.0	9.07	
76 Hexachlorocyclopentadiene	237	8.229	8.229	0.000	95	146223	10.0	11.7	
77 1,2,4,5-Tetrachlorobenzene	216	8.235	8.235	0.000	97	208108	10.0	11.3	
78 2,4,6-Trichlorophenol	196	8.331	8.331	0.000	93	125874	10.0	11.7	
79 2,4,5-Trichlorophenol	196	8.363	8.363	0.000	89	125041	10.0	10.7	
80 1,1'-Biphenyl	154	8.497	8.497	0.000	96	468758	10.0	10.0	
81 2-Chloronaphthalene	162	8.529	8.529	0.000	99	405963	10.0	10.3	
82 2-Nitroaniline	65	8.603	8.603	0.000	74	137578	10.0	13.7	
86 Dimethyl phthalate	163	8.758	8.758	0.000	95	406884	10.0	10.8	
87 1,3-Dinitrobenzene	168	8.790	8.790	0.000	80	62468	10.0	10.6	
88 2,6-Dinitrotoluene	165	8.817	8.817	0.000	79	88039	10.0	10.4	
89 Acenaphthylene	152	8.913	8.913	0.000	97	554109	10.0	10.0	
90 3-Nitroaniline	138	8.983	8.983	0.000	87	95011	10.0	10.4	
91 Acenaphthene	153	9.073	9.073	0.000	93	353289	10.0	9.86	
92 2,4-Dinitrophenol	184	9.073	9.073	0.000	74	92748	20.0	20.6	
93 4-Nitrophenol	109	9.116	9.116	0.000	89	178685	20.0	30.7	
94 2,4-Dinitrotoluene	165	9.191	9.191	0.000	83	120035	10.0	10.7	
95 Dibenzofuran	168	9.228	9.228	0.000	93	508587	10.0	9.55	
97 2,3,5,6-Tetrachlorophenol	232	9.298	9.298	0.000	89	103689	10.0	10.4	
99 2,3,4,6-Tetrachlorophenol	232	9.340	9.340	0.000	79	100429	10.0	9.86	
100 2-Naphthylamine	143	9.367	9.367	0.000	94	354041	10.0	10.1	
101 Diethyl phthalate	149	9.399	9.399	0.000	95	443078	10.0	11.8	
102 Hexadecane	57	9.405	9.405	0.000	93	228395	10.0	9.20	
104 4-Chlorophenyl phenyl ethe	204	9.527	9.527	0.000	96	207358	10.0	10.2	
105 4-Nitroaniline	138	9.543	9.543	0.000	72	95851	10.0	10.4	
106 Fluorene	166	9.543	9.543	0.000	98	407869	10.0	9.92	
108 4,6-Dinitro-2-methylphenol	198	9.570	9.570	0.000	68	132097	20.0	21.8	
109 N-Nitrosodiphenylamine	169	9.629	9.629	0.000	64	298550	10.0	10.4	
111 1,2-Diphenylhydrazine	77	9.672	9.672	0.000	97	497136	10.0	12.4	
116 4-Bromophenyl phenyl ether	248	9.981	9.981	0.000	75	129678	10.0	11.9	
118 Hexachlorobenzene	284	10.061	10.061	0.000	91	134155	10.0	11.6	
119 Atrazine	200	10.099	10.099	0.000	92	122622	10.0	12.2	

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\1028003.D

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.232	10.232	0.000	86	156811	20.0	22.5	
121 n-Octadecane	57	10.238	10.238	0.000	91	246748	10.0	8.78	
126 Phenanthrene	178	10.435	10.435	0.000	98	559923	10.0	9.86	
128 Anthracene	178	10.489	10.489	0.000	97	585316	10.0	10.2	
130 Carbazole	167	10.628	10.628	0.000	98	514311	10.0	10.1	
132 Di-n-butyl phthalate	149	10.921	10.921	0.000	99	656984	10.0	11.6	
137 Fluoranthene	202	11.717	11.717	0.000	97	618417	10.0	10.6	
138 Benzidine	184	11.845	11.845	0.000	98	251912	10.0	9.18	
139 Pyrene	202	12.016	12.016	0.000	98	640530	10.0	9.62	
144 Butyl benzyl phthalate	149	12.866	12.866	0.000	94	270333	10.0	11.0	
149 3,3'-Dichlorobenzidine	252	13.816	13.816	0.000	75	199369	10.0	10.9	
151 Bis(2-ethylhexyl) phthalat	149	13.854	13.854	0.000	95	375628	10.0	11.4	
152 Benzo[a]anthracene	228	13.891	13.891	0.000	96	547869	10.0	9.71	
153 Chrysene	228	13.960	13.960	0.000	96	523439	10.0	9.61	
156 Di-n-octyl phthalate	149	15.157	15.157	0.000	99	578073	10.0	11.2	
157 7,12-Dimethylbenz(a)anthra	256	16.017	16.017	0.000	89	234852	10.0	10.2	
158 Benzo[b]fluoranthene	252	16.033	16.033	0.000	95	546805	10.0	9.88	
159 Benzo[k]fluoranthene	252	16.081	16.081	0.000	97	500248	10.0	9.84	
176 Benzo[e]pyrene	252	16.604	16.604	0.000	0	481479	10.0	9.81	
160 Benzo[a]pyrene	252	16.711	16.711	0.000	74	475416	10.0	10.0	
163 Indeno[1,2,3-cd]pyrene	276	19.040	19.040	0.000	97	464624	10.0	9.42	
164 Dibenz(a,h)anthracene	278	19.077	19.077	0.000	88	399735	10.0	9.42	
165 Benzo[g,h,i]perylene	276	19.633	19.633	0.000	96	393632	10.0	9.58	
S 208 Methyl Phenols, Total	108				0		20.0	19.3	
S 206 Total Cresols	108				0		20.0	19.3	

**QC Flag Legend**

Processing Flags

ND - Not Detected or Marked ND

**Reagents:**

SVTAPSTD10i\_00076

Amount Added: 1.00

Units: mL



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028003.D

Injection Date: 28-Oct-2014 12:23:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

Injection Vol: 2.0 ul

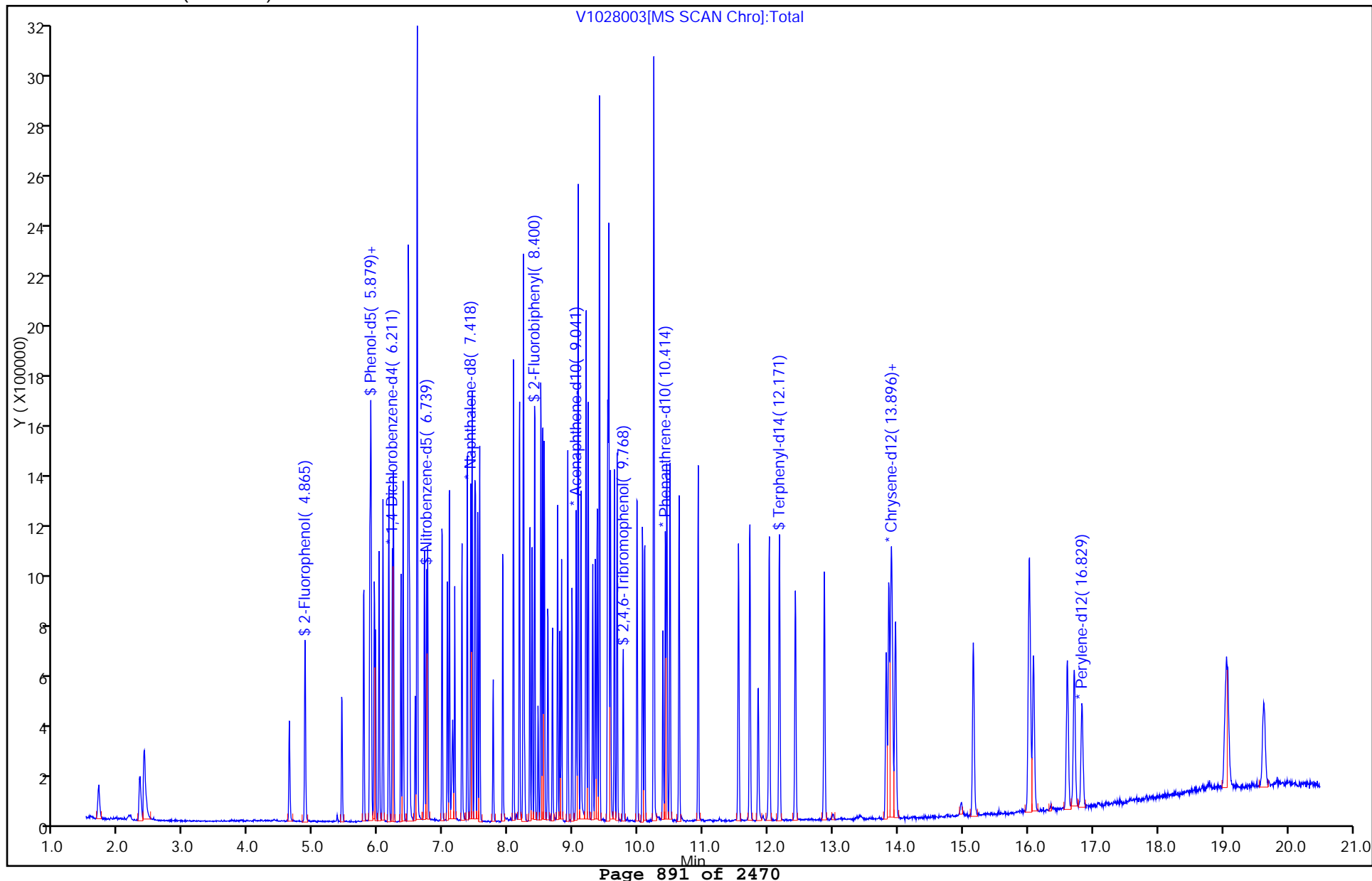
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-123272/3 Calibration Date: 10/30/2014 09:16  
 Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22  
 GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47  
 Lab File ID: V1030003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4170	0.5662	0.0100	6.79	5.00	35.8*	20.0
N-Nitrosodimethylamine	Ave	0.5429	0.7523	0.0100	6.93	5.00	38.6*	20.0
Pyridine	Ave	1.036	1.347	0.0100	6.50	5.00	30.1*	20.0
Methyl methanesulfonate	Ave	0.7381	0.9486	0.0100	6.43	5.00	28.5*	20.0
Benzaldehyde	Ave	0.8969	1.001	0.0100	5.58	5.00	11.7	20.0
Phenol	Ave	1.734	1.730	0.8000	4.99	5.00	-0.2	20.0
Aniline	Ave	1.953	1.970	0.0100	5.04	5.00	0.9	20.0
Bis(2-chloroethyl)ether	Ave	1.167	1.118	0.7000	4.79	5.00	-4.3	20.0
2-Chlorophenol	Ave	1.338	1.303	0.8000	4.87	5.00	-2.6	20.0
1,3-Dichlorobenzene	Ave	1.557	1.446	0.0100	4.64	5.00	-7.1	20.0
1,4-Dichlorobenzene	Ave	1.574	1.482	0.0100	4.71	5.00	-5.8	20.0
Benzyl alcohol	Ave	0.7987	0.6742	0.0100	4.22	5.00	-15.6	20.0
1,2-Dichlorobenzene	Ave	1.520	1.407	0.0100	4.63	5.00	-7.4	20.0
2-Methylphenol	Ave	1.179	1.221	0.7000	5.18	5.00	3.5	20.0
Indene	Ave	2.144	2.101	0.0100	4.90	5.00	-2.0	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.544	1.455	0.0100	4.71	5.00	-5.7	20.0
N-Nitrosopyrrolidine	Ave	0.5168	0.5448	0.0100	5.27	5.00	5.4	20.0
Acetophenone	Ave	1.750	1.850	0.0100	5.37	5.00	5.7	20.0
N-Nitrosodi-n-propylamine	Ave	0.8622	0.9934	0.5000	5.76	5.00	15.2	20.0
Methylphenol, 3 & 4	Ave	1.241	1.221	0.6000	4.94	5.00	-1.6	20.0
Hexachloroethane	Ave	0.6588	0.6949	0.3000	5.27	5.00	5.5	20.0
Nitrobenzene	Ave	0.3573	0.4117	0.2000	5.76	5.00	15.2	20.0
Isophorone	Ave	0.5844	0.6615	0.4000	5.66	5.00	13.2	20.0
2-Nitrophenol	Ave	0.1686	0.1791	0.1000	5.31	5.00	6.2	20.0
2,4-Dimethylphenol	Ave	0.3474	0.3688	0.2000	5.31	5.00	6.2	20.0
Benzoic acid	Qua		0.1370	0.0100	6.50	5.00	30.0*	20.0
Bis(2-chloroethoxy)methane	Ave	0.3685	0.3627	0.3000	4.92	5.00	-1.6	20.0
2,4-Dichlorophenol	Ave	0.2812	0.2788	0.2000	4.96	5.00	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3283	0.3138	0.0100	4.78	5.00	-4.4	20.0
Naphthalene	Ave	1.054	0.9785	0.7000	4.64	5.00	-7.2	20.0
4-Chloroaniline	Ave	0.4210	0.4098	0.0100	4.87	5.00	-2.7	20.0
2,6-Dichlorophenol	Ave	0.2790	0.2786	0.0100	4.99	5.00	-0.1	20.0
Hexachlorobutadiene	Ave	0.1954	0.2079	0.0100	5.32	5.00	6.4	20.0
Caprolactam	Ave	0.0764	0.0905	0.0100	5.92	5.00	18.4	20.0
4-Chloro-3-methylphenol	Ave	0.2818	0.3008	0.2000	5.34	5.00	6.8	20.0
2-Methylnaphthalene	Ave	0.7100	0.6610	0.4000	4.65	5.00	-6.9	20.0
1-Methylnaphthalene	Ave	0.6628	0.5834	0.0100	4.40	5.00	-12.0	20.0
Hexachlorocyclopentadiene	Ave	0.3902	0.3784	0.0500	4.85	5.00	-3.0	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5748	0.6005	0.0100	5.22	5.00	4.5	20.0
2,4,6-Trichlorophenol	Ave	0.3358	0.3582	0.2000	5.33	5.00	6.7	20.0
2,4,5-Trichlorophenol	Ave	0.3647	0.3888	0.2000	5.33	5.00	6.6	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 180-123272/3 Calibration Date: 10/30/2014 09:16

Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22

GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47

Lab File ID: V1030003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.464	1.360	0.0100	4.64	5.00	-7.1	20.0
2-Chloronaphthalene	Ave	1.241	1.150	0.8000	4.64	5.00	-7.3	20.0
2-Nitroaniline	Ave	0.3040	0.4159	0.0100	6.62	5.00	36.8*	20.0
Dimethyl phthalate	Ave	1.185	1.241	0.0100	5.24	5.00	4.8	20.0
1,3-Dinitrobenzene	Ave	0.1841	0.1862	0.0100	5.06	5.00	1.1	20.0
2,6-Dinitrotoluene	Ave	0.2641	0.2717	0.2000	5.14	5.00	2.9	20.0
Acenaphthylene	Ave	1.733	1.640	0.9000	4.73	5.00	-5.3	20.0
3-Nitroaniline	Ave	0.2866	0.3027	0.0100	5.28	5.00	5.6	20.0
Acenaphthene	Ave	1.123	1.054	0.9000	4.69	5.00	-6.2	20.0
2,4-Dinitrophenol	Lin1		0.1389	0.0100	9.92	10.0	-0.8	20.0
4-Nitrophenol	Ave	0.1821	0.2826	0.0100	15.5	10.0	55.2*	20.0
2,4-Dinitrotoluene	Ave	0.3508	0.3972	0.2000	5.66	5.00	13.2	20.0
Dibenzofuran	Ave	1.668	1.545	0.8000	4.63	5.00	-7.4	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3113	0.3223	0.0100	5.18	5.00	3.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3193	0.3227	0.0100	5.05	5.00	1.1	20.0
2-Naphthylamine	Ave	1.101	1.069	0.0100	4.86	5.00	-2.9	20.0
Diethyl phthalate	Ave	1.182	1.365	0.0100	5.77	5.00	15.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6352	0.6297	0.4000	4.96	5.00	-0.9	20.0
4-Nitroaniline	Ave	0.2884	0.2983	0.0100	5.17	5.00	3.5	20.0
Fluorene	Ave	1.288	1.219	0.9000	4.73	5.00	-5.4	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1381	0.0100	11.1	10.0	10.8	20.0
N-Nitrosodiphenylamine	Ave	0.5906	0.5678	0.0100	4.81	5.00	-3.9	20.0
1,2-Diphenylhydrazine (as Azobenzene)	Ave	0.8217	0.9571	0.0100	5.82	5.00	16.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2234	0.2362	0.1000	5.28	5.00	5.7	20.0
Hexachlorobenzene	Ave	0.2369	0.2532	0.1000	5.34	5.00	6.9	20.0
Atrazine	Ave	0.2052	0.2375	0.0100	5.79	5.00	15.7	20.0
Pentachlorophenol	Lin1		0.1629	0.0500	11.4	10.0	14.1	20.0
Phenanthrene	Ave	1.164	1.092	0.7000	4.69	5.00	-6.1	20.0
Anthracene	Ave	1.172	1.087	0.7000	4.64	5.00	-7.3	20.0
Carbazole	Ave	1.039	1.003	0.0100	4.83	5.00	-3.5	20.0
Di-n-butyl phthalate	Ave	1.157	1.290	0.0100	5.57	5.00	11.4	20.0
Fluoranthene	Ave	1.194	1.185	0.6000	4.96	5.00	-0.7	20.0
Benzdine	Ave	0.5273	0.5250	0.0100	4.98	5.00	-0.4	20.0
Pyrene	Ave	1.280	1.359	0.6000	5.31	5.00	6.1	20.0
Butyl benzyl phthalate	Ave	0.4711	0.5905	0.0100	6.27	5.00	25.3*	20.0
3,3'-Dichlorobenzidine	Ave	0.3511	0.4052	0.0100	5.77	5.00	15.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.6314	0.7352	0.0100	5.82	5.00	16.4	20.0
Benzo[a]anthracene	Ave	1.085	1.000	0.8000	4.61	5.00	-7.8	20.0
Chrysene	Ave	1.047	0.9247	0.7000	4.42	5.00	-11.7	20.0
Di-n-octyl phthalate	Ave	1.295	1.817	0.0100	6.95	5.00	40.3*	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-123272/3 Calibration Date: 10/30/2014 09:16  
 Instrument ID: CH731 Calib Start Date: 08/28/2014 02:22  
 GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 08/28/2014 05:47  
 Lab File ID: V1030003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
7,12-Dimethylbenz(a)anthracene	Ave	0.5871	0.6030	0.0100	5.14	5.00	2.7	20.0
Benzo[b]fluoranthene	Ave	1.405	1.335	0.7000	4.75	5.00	-4.9	20.0
Benzo[k]fluoranthene	Ave	1.290	1.296	0.7000	5.02	5.00	0.4	20.0
Benzo[a]pyrene	Ave	1.207	1.126	0.7000	4.66	5.00	-6.8	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.252	1.075	0.5000	4.29	5.00	-14.2	20.0
Dibenz(a,h)anthracene	Ave	1.077	0.9096	0.4000	4.22	5.00	-15.5	20.0
Benzo[g,h,i]perylene	Ave	1.043	0.8689	0.5000	4.16	5.00	-16.7	20.0
2-Fluorophenol (Surr)	Ave	1.131	1.278		5.65	5.00	13.1	20.0
Phenol-d5 (Surr)	Ave	1.498	1.534		5.12	5.00	2.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3658	0.4209		5.75	5.00	15.1	20.0
2-Fluorobiphenyl	Ave	1.377	1.304		4.73	5.00	-5.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0922	0.0955	0.0100	5.18	5.00	3.6	20.0
Terphenyl-d14 (Surr)	Ave	0.8488	0.9816		5.78	5.00	15.6	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030003.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 30-Oct-2014 09:16:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004095-003  
 Misc. Info.: CCVIS  
 Operator ID: 003200 Instrument ID: CH731  
 Sublist: chrom-BNA\_CH731\*sub4  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:30 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 30-Oct-2014 10:55:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.216	6.216	0.000	91	226012	8.00	8.00	
* 2 Naphthalene-d8	136	7.418	7.418	0.000	98	812871	8.00	8.00	
* 3 Acenaphthene-d10	164	9.036	9.036	0.000	91	440757	8.00	8.00	
* 4 Phenanthrene-d10	188	10.398	10.398	0.000	94	712549	8.00	8.00	
* 5 Chrysene-d12	240	13.859	13.859	0.000	76	615544	8.00	8.00	
* 6 Perylene-d12	264	16.759	16.759	0.000	98	360732	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.881	4.881	0.000	90	361113	10.0	11.3	
\$ 8 Phenol-d5	99	5.869	5.869	0.000	92	433339	10.0	10.2	
\$ 9 Nitrobenzene-d5	82	6.739	6.739	0.000	92	427626	10.0	11.5	
\$ 10 2-Fluorobiphenyl	172	8.400	8.400	0.000	99	718649	10.0	9.47	
\$ 11 2,4,6-Tribromophenol	330	9.752	9.752	0.000	78	85092	10.0	10.4	
\$ 12 Terphenyl-d14	244	12.134	12.134	0.000	96	755272	10.0	11.6	
13 1,4-Dioxane	88	1.719	1.719	0.000	89	159960	10.0	13.6	
14 N-Nitrosodimethylamine	74	2.360	2.360	0.000	85	212541	10.0	13.9	
15 Pyridine	79	2.424	2.424	0.000	96	380671	10.0	13.0	
22 Methyl methanesulfonate	80	4.635	4.635	0.000	91	267996	10.0	12.9	
26 Benzaldehyde	77	5.778	5.778	0.000	88	282930	10.0	11.2	
27 Phenol	94	5.885	5.885	0.000	83	488660	10.0	9.98	
28 Aniline	93	5.890	5.890	0.000	82	556559	10.0	10.1	
29 Bis(2-chloroethyl)ether	93	5.960	5.960	0.000	93	315778	10.0	9.57	
31 2-Chlorophenol	128	6.013	6.013	0.000	95	368044	10.0	9.74	
32 n-Decane	43	6.072	6.072	0.000	83	346382	10.0	10.1	
33 1,3-Dichlorobenzene	146	6.162	6.162	0.000	93	408564	10.0	9.29	
34 1,4-Dichlorobenzene	146	6.232	6.232	0.000	88	418715	10.0	9.42	
36 Benzyl alcohol	108	6.349	6.349	0.000	85	190477	10.0	8.44	M
37 1,2-Dichlorobenzene	146	6.381	6.381	0.000	87	397474	10.0	9.26	
38 2-Methylphenol	108	6.462	6.462	0.000	83	344900	10.0	10.4	
39 Indene	116	6.467	6.467	0.000	77	593472	10.0	9.80	
40 2,2'-oxybis[1-chloropropan	45	6.483	6.483	0.000	85	411128	10.0	9.43	
41 N-Nitrosopyrrolidine	100	6.568	6.568	0.000	78	153904	10.0	10.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
44 N-Nitrosodi-n-propylamine	70	6.595	6.595	0.000	63	280651	10.0	11.5	
43 Acetophenone	105	6.595	6.595	0.000	80	522737	10.0	10.7	
45 4-Methylphenol	108	6.600	6.600	0.000	64	345079	10.0	9.87	
47 Hexachloroethane	117	6.707	6.707	0.000	92	196330	10.0	10.5	
48 Nitrobenzene	77	6.761	6.761	0.000	90	418322	10.0	11.5	
50 Isophorone	82	6.980	6.980	0.000	95	672143	10.0	11.3	
51 2-Nitrophenol	139	7.060	7.060	0.000	85	182009	10.0	10.6	
52 2,4-Dimethylphenol	107	7.092	7.092	0.000	68	374747	10.0	10.6	
56 Benzoic acid	122	7.140	7.140	0.000	84	139204	10.0	13.0	
55 Bis(2-chloroethoxy)methane	93	7.172	7.172	0.000	93	368556	10.0	9.84	
57 2,4-Dichlorophenol	162	7.284	7.284	0.000	96	283301	10.0	9.92	
59 1,2,4-Trichlorobenzene	180	7.364	7.364	0.000	91	318865	10.0	9.56	
61 Azobenzene	77		7.370					ND	
60 Naphthalene	128	7.439	7.439	0.000	96	994230	10.0	9.28	
62 4-Chloroaniline	127	7.482	7.482	0.000	74	416398	10.0	9.73	
63 2,6-Dichlorophenol	162	7.492	7.492	0.000	91	283112	10.0	9.99	
64 Hexachlorobutadiene	225	7.556	7.556	0.000	62	211197	10.0	10.6	
67 Caprolactam	113	7.765	7.765	0.000	71	91905	10.0	11.8	
70 4-Chloro-3-methylphenol	107	7.909	7.909	0.000	88	305680	10.0	10.7	
72 2-Methylnaphthalene	142	8.075	8.075	0.000	87	671616	10.0	9.31	
75 1-Methylnaphthalene	142	8.165	8.165	0.000	82	592778	10.0	8.80	
76 Hexachlorocyclopentadiene	237	8.224	8.224	0.000	93	208468	10.0	9.70	
77 1,2,4,5-Tetrachlorobenzene	216	8.229	8.229	0.000	96	330851	10.0	10.4	
78 2,4,6-Trichlorophenol	196	8.326	8.326	0.000	92	197346	10.0	10.7	
79 2,4,5-Trichlorophenol	196	8.358	8.358	0.000	89	214211	10.0	10.7	
80 1,1'-Biphenyl	154	8.491	8.491	0.000	97	749481	10.0	9.29	
81 2-Chloronaphthalene	162	8.523	8.523	0.000	66	633685	10.0	9.27	
82 2-Nitroaniline	65	8.598	8.598	0.000	72	229116	10.0	13.2	
86 Dimethyl phthalate	163	8.748	8.748	0.000	94	683868	10.0	10.5	
87 1,3-Dinitrobenzene	168	8.785	8.785	0.000	72	102563	10.0	10.1	
88 2,6-Dinitrotoluene	165	8.812	8.812	0.000	66	149664	10.0	10.3	
89 Acenaphthylene	152	8.908	8.908	0.000	93	903630	10.0	9.47	
90 3-Nitroaniline	138	8.972	8.972	0.000	87	166796	10.0	10.6	
91 Acenaphthene	153	9.063	9.063	0.000	84	580431	10.0	9.38	
92 2,4-Dinitrophenol	184	9.068	9.068	0.000	61	153015	20.0	19.8	
93 4-Nitrophenol	109	9.105	9.105	0.000	88	311344	20.0	31.0	
94 2,4-Dinitrotoluene	165	9.180	9.180	0.000	76	218841	10.0	11.3	
95 Dibenzofuran	168	9.218	9.218	0.000	78	851138	10.0	9.26	
97 2,3,5,6-Tetrachlorophenol	232	9.287	9.287	0.000	85	177573	10.0	10.4	
99 2,3,4,6-Tetrachlorophenol	232	9.324	9.324	0.000	77	177781	10.0	10.1	
100 2-Naphthylamine	143	9.356	9.356	0.000	84	589116	10.0	9.71	
102 Hexadecane	57	9.388	9.388	0.000	74	395287	10.0	9.76	
101 Diethyl phthalate	149	9.388	9.388	0.000	93	751922	10.0	11.5	
104 4-Chlorophenyl phenyl ethe	204	9.517	9.517	0.000	96	346950	10.0	9.91	
105 4-Nitroaniline	138	9.527	9.527	0.000	75	164372	10.0	10.3	
106 Fluorene	166	9.533	9.533	0.000	89	671534	10.0	9.46	
108 4,6-Dinitro-2-methylphenol	198	9.559	9.559	0.000	52	246044	20.0	22.2	
109 N-Nitrosodiphenylamine	169	9.618	9.618	0.000	62	505749	10.0	9.61	
111 1,2-Diphenylhydrazine	77	9.661	9.661	0.000	97	852446	10.0	11.6	
116 4-Bromophenyl phenyl ether	248	9.965	9.965	0.000	67	210340	10.0	10.6	
118 Hexachlorobenzene	284	10.051	10.051	0.000	86	225496	10.0	10.7	
119 Atrazine	200	10.083	10.083	0.000	73	211525	10.0	11.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
122 Pentachlorophenol	266	10.216	10.216	0.000	78	290185	20.0	22.8	
121 n-Octadecane	57	10.222	10.222	0.000	90	406835	10.0	9.15	
126 Phenanthrene	178	10.419	10.419	0.000	97	972978	10.0	9.39	
128 Anthracene	178	10.467	10.467	0.000	97	967996	10.0	9.27	
130 Carbazole	167	10.606	10.606	0.000	84	892973	10.0	9.65	
132 Di-n-butyl phthalate	149	10.895	10.895	0.000	99	1148792	10.0	11.1	
137 Fluoranthene	202	11.685	11.685	0.000	97	1055710	10.0	9.93	
138 Benzidine	184	11.813	11.813	0.000	97	403910	10.0	9.96	
139 Pyrene	202	11.984	11.984	0.000	99	1045549	10.0	10.6	
144 Butyl benzyl phthalate	149	12.817	12.817	0.000	93	454346	10.0	12.5	
149 3,3'-Dichlorobenzidine	252	13.768	13.768	0.000	76	311733	10.0	11.5	
151 Bis(2-ethylhexyl) phthalat	149	13.800	13.800	0.000	95	565685	10.0	11.6	
152 Benzo[a]anthracene	228	13.838	13.838	0.000	90	769248	10.0	9.22	
153 Chrysene	228	13.907	13.907	0.000	90	711495	10.0	8.83	
156 Di-n-octyl phthalate	149	15.087	15.087	0.000	98	819185	10.0	13.9	
157 7,12-Dimethylbenz(a)anthra	256	15.942	15.942	0.000	79	271913	10.0	10.3	
158 Benzo[b]fluoranthene	252	15.963	15.963	0.000	92	602122	10.0	9.51	
159 Benzo[k]fluoranthene	252	16.017	16.017	0.000	93	584394	10.0	10.0	
176 Benzo[e]pyrene	252	16.540	16.540	0.000	0	509432	10.0	9.07	
160 Benzo[a]pyrene	252	16.642	16.642	0.000	70	507575	10.0	9.32	
163 Indeno[1,2,3-cd]pyrene	276	18.949	18.949	0.000	96	484574	10.0	8.58	
164 Dibenz(a,h)anthracene	278	18.981	18.981	0.000	60	410144	10.0	8.45	
165 Benzo[g,h,i]perylene	276	19.537	19.537	0.000	90	391776	10.0	8.33	
S 206 Total Cresols	108				0		20.0	20.2	
S 208 Methyl Phenols, Total	108				0		20.0	20.2	

**QC Flag Legend**

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

**Reagents:**

SVTAPSTD10i\_00077

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030003.D

Injection Date: 30-Oct-2014 09:16:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

Injection Vol: 2.0 ul

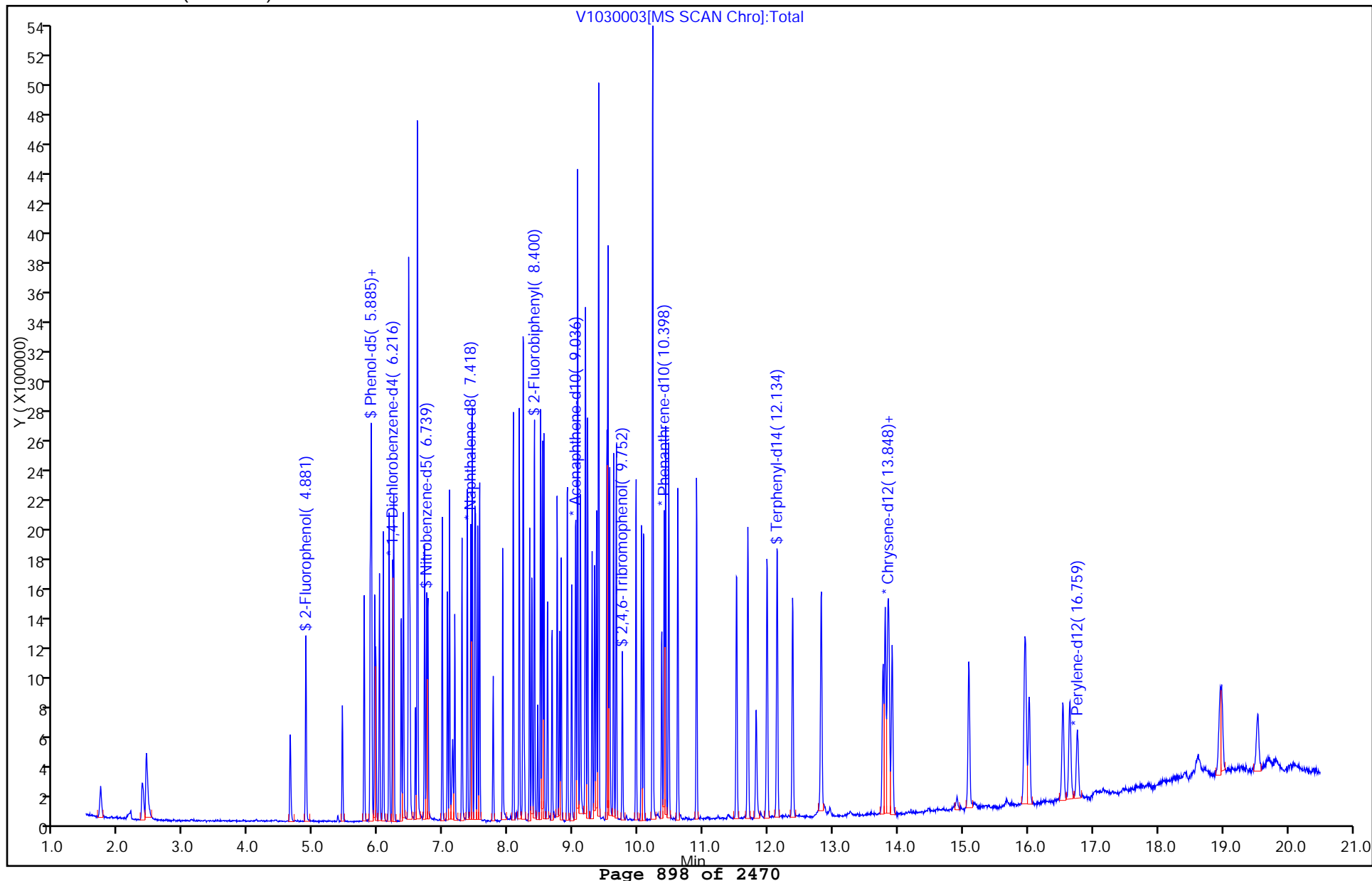
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)





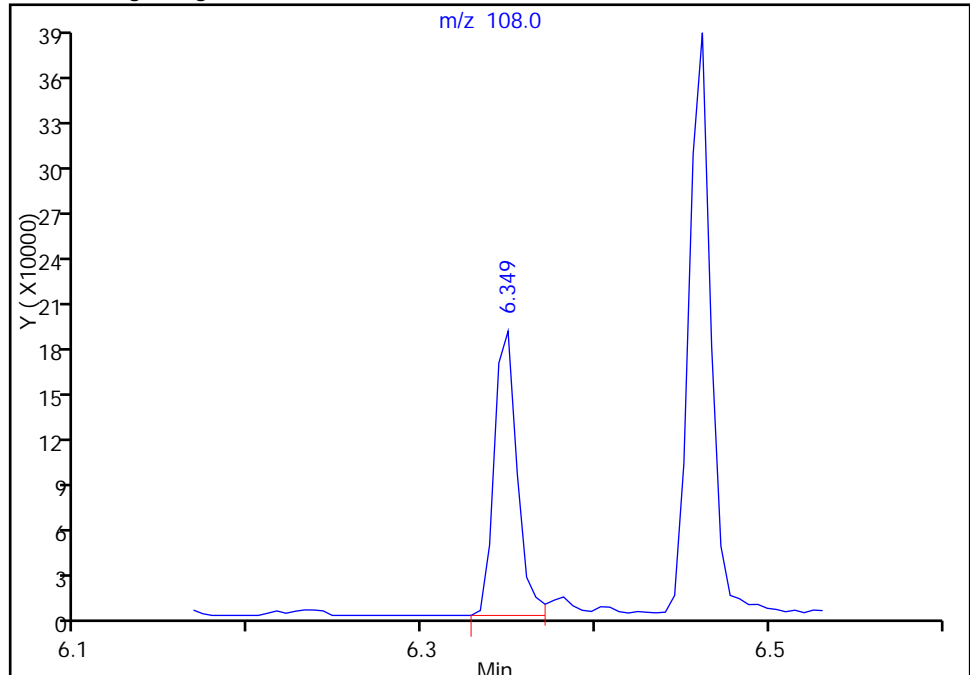
## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030003.D  
Injection Date: 30-Oct-2014 09:16:30 Instrument ID: CH731  
Lims ID: CCVIS  
Client ID:  
Operator ID: 003200 ALS Bottle#: 2 Worklist Smp#: 3  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

**36 Benzyl alcohol, CAS: 100-51-6**

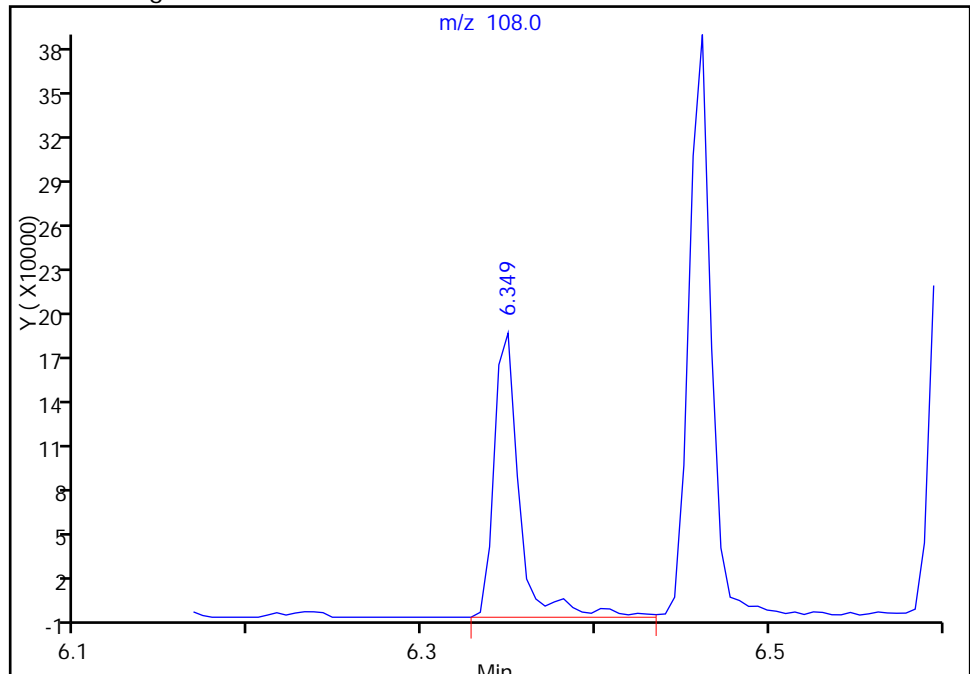
RT: 6.35  
Response: 172474  
Amount: 7.643168

## Processing Integration Results



RT: 6.35  
Response: 190477  
Amount: 8.440969

## Manual Integration Results



Reviewer: piccolinov, 30-Oct-2014 10:55:51  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-123453/3 Calibration Date: 10/31/2014 11:53  
 Instrument ID: CH732 Calib Start Date: 07/28/2014 04:52  
 GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 07/28/2014 07:56  
 Lab File ID: D1031003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.3772	0.4156	0.0100	5.51	5.00	10.2	20.0
N-Nitrosodimethylamine	Ave	0.5232	0.6163	0.0100	5.89	5.00	17.8	20.0
Pyridine	Ave	0.9416	1.095	0.0100	5.82	5.00	16.3	20.0
Methyl methanesulfonate	Ave	0.6407	0.7913	0.0100	6.18	5.00	23.5*	20.0
Benzaldehyde	Ave	0.8834	1.105	0.0100	6.25	5.00	25.1*	20.0
Phenol	Ave	1.717	1.742	0.8000	5.07	5.00	1.4	20.0
Aniline	Ave	1.999	2.035	0.0100	5.09	5.00	1.8	20.0
Bis(2-chloroethyl)ether	Ave	1.155	1.125	0.7000	4.87	5.00	-2.6	20.0
2-Chlorophenol	Ave	1.319	1.319	0.8000	5.00	5.00	0.0	20.0
1,3-Dichlorobenzene	Ave	1.589	1.481	0.0100	4.66	5.00	-6.8	20.0
1,4-Dichlorobenzene	Ave	1.615	1.518	0.0100	4.70	5.00	-6.0	20.0
Benzyl alcohol	Ave	0.7569	0.7817	0.0100	5.16	5.00	3.3	20.0
1,2-Dichlorobenzene	Ave	1.554	1.419	0.0100	4.56	5.00	-8.7	20.0
2-Methylphenol	Ave	1.182	1.205	0.7000	5.09	5.00	1.9	20.0
Indene	Ave	2.222	2.130	0.0100	4.79	5.00	-4.1	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.751	1.771	0.0100	5.06	5.00	1.1	20.0
N-Nitrosopyrrolidine	Ave	0.5847	0.5786	0.0100	4.95	5.00	-1.1	20.0
Acetophenone	Ave	1.833	1.898	0.0100	5.18	5.00	3.6	20.0
N-Nitrosodi-n-propylamine	Ave	0.9549	1.050	0.5000	5.50	5.00	9.9	20.0
Methylphenol, 3 & 4	Ave	1.269	1.306	0.6000	5.14	5.00	2.9	20.0
Hexachloroethane	Ave	0.5906	0.6138	0.3000	5.20	5.00	3.9	20.0
Nitrobenzene	Ave	0.3468	0.3974	0.2000	5.73	5.00	14.6	20.0
Isophorone	Ave	0.6096	0.6730	0.4000	5.52	5.00	10.4	20.0
2-Nitrophenol	Ave	0.1777	0.1814	0.1000	5.10	5.00	2.1	20.0
2,4-Dimethylphenol	Ave	0.3309	0.3751	0.2000	5.67	5.00	13.4	20.0
Benzoic acid	Lin1		0.0905	0.0100	4.17	5.00	-16.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.3751	0.3823	0.3000	5.10	5.00	1.9	20.0
2,4-Dichlorophenol	Ave	0.2969	0.3010	0.2000	5.07	5.00	1.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3631	0.3570	0.0100	4.92	5.00	-1.7	20.0
Naphthalene	Ave	1.069	1.029	0.7000	4.81	5.00	-3.8	20.0
4-Chloroaniline	Ave	0.4307	0.4283	0.0100	4.97	5.00	-0.6	20.0
2,6-Dichlorophenol	Ave	0.3039	0.2998	0.0100	4.93	5.00	-1.3	20.0
Hexachlorobutadiene	Ave	0.2259	0.2252	0.0100	4.98	5.00	-0.3	20.0
Caprolactam	Ave	0.0850	0.0867	0.0100	5.10	5.00	2.1	20.0
4-Chloro-3-methylphenol	Ave	0.2907	0.3205	0.2000	5.51	5.00	10.3	20.0
2-Methylnaphthalene	Ave	0.7321	0.6981	0.4000	4.77	5.00	-4.7	20.0
1-Methylnaphthalene	Ave	0.6944	0.6580	0.0100	4.74	5.00	-5.2	20.0
Hexachlorocyclopentadiene	Ave	0.3782	0.4101	0.0500	5.42	5.00	8.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6316	0.6192	0.0100	4.90	5.00	-2.0	20.0
2,4,6-Trichlorophenol	Ave	0.3690	0.3721	0.2000	5.04	5.00	0.8	20.0
2,4,5-Trichlorophenol	Ave	0.3867	0.3974	0.2000	5.14	5.00	2.8	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 180-123453/3 Calibration Date: 10/31/2014 11:53

Instrument ID: CH732 Calib Start Date: 07/28/2014 04:52

GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 07/28/2014 07:56

Lab File ID: D1031003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.487	1.443	0.0100	4.85	5.00	-2.9	20.0
2-Chloronaphthalene	Ave	1.271	1.217	0.8000	4.79	5.00	-4.2	20.0
2-Nitroaniline	Ave	0.2983	0.3985	0.0100	6.68	5.00	33.6*	20.0
Dimethyl phthalate	Ave	1.270	1.316	0.0100	5.18	5.00	3.6	20.0
1,3-Dinitrobenzene	Ave	0.1889	0.1887	0.0100	4.99	5.00	-0.1	20.0
2,6-Dinitrotoluene	Ave	0.2788	0.2866	0.2000	5.14	5.00	2.8	20.0
Acenaphthylene	Ave	1.820	1.757	0.9000	4.83	5.00	-3.4	20.0
3-Nitroaniline	Ave	0.2763	0.2964	0.0100	5.36	5.00	7.3	20.0
Acenaphthene	Ave	1.193	1.170	0.9000	4.90	5.00	-2.0	20.0
2,4-Dinitrophenol	Lin1		0.1651	0.0100	9.93	10.0	-0.7	20.0
4-Nitrophenol	Ave	0.1347	0.2009	0.0100	14.9	10.0	49.1*	20.0
2,4-Dinitrotoluene	Ave	0.3645	0.3950	0.2000	5.42	5.00	8.4	20.0
Dibenzofuran	Ave	1.738	1.642	0.8000	4.72	5.00	-5.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3376	0.3287	0.0100	4.87	5.00	-2.6	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3355	0.3205	0.0100	4.78	5.00	-4.5	20.0
2-Naphthylamine	Ave	1.101	1.095	0.0100	4.97	5.00	-0.6	20.0
Diethyl phthalate	Ave	1.206	1.334	0.0100	5.53	5.00	10.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.7159	0.6726	0.4000	4.70	5.00	-6.0	20.0
4-Nitroaniline	Ave	0.2694	0.2908	0.0100	5.40	5.00	7.9	20.0
Fluorene	Ave	1.346	1.275	0.9000	4.74	5.00	-5.3	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1424	0.1402	0.0100	9.85	10.0	-1.5	20.0
N-Nitrosodiphenylamine	Ave	0.5657	0.5545	0.0100	4.90	5.00	-2.0	20.0
1,2-Diphenylhydrazine (as Azobenzene)	Ave	0.7187	0.8697	0.0100	6.05	5.00	21.0*	20.0
4-Bromophenyl phenyl ether	Ave	0.2274	0.2222	0.1000	4.88	5.00	-2.3	20.0
Hexachlorobenzene	Ave	0.2175	0.2102	0.1000	4.83	5.00	-3.4	20.0
Atrazine	Ave	0.2132	0.2232	0.0100	5.23	5.00	4.7	20.0
Pentachlorophenol	Lin1		0.1184	0.0500	8.89	10.0	-11.1	20.0
Phenanthrene	Ave	1.160	1.101	0.7000	4.74	5.00	-5.1	20.0
Anthracene	Ave	1.166	1.153	0.7000	4.94	5.00	-1.2	20.0
Carbazole	Ave	0.9938	0.9895	0.0100	4.98	5.00	-0.4	20.0
Di-n-butyl phthalate	Ave	1.118	1.208	0.0100	5.40	5.00	8.0	20.0
Fluoranthene	Ave	1.214	1.207	0.6000	4.97	5.00	-0.6	20.0
Benzdine	Ave	0.5176	0.6372	0.0100	6.16	5.00	23.1*	20.0
Pyrene	Ave	1.291	1.324	0.6000	5.13	5.00	2.6	20.0
Butyl benzyl phthalate	Ave	0.4378	0.5638	0.0100	6.44	5.00	28.8*	20.0
3,3'-Dichlorobenzidine	Ave	0.3497	0.3621	0.0100	5.18	5.00	3.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.6021	0.7253	0.0100	6.02	5.00	20.5*	20.0
Benzo[a]anthracene	Ave	1.181	1.160	0.8000	4.91	5.00	-1.8	20.0
Chrysene	Ave	1.132	1.081	0.7000	4.77	5.00	-4.5	20.0
Di-n-octyl phthalate	Ave	1.273	1.448	0.0100	5.69	5.00	13.8	20.0

FORM VII  
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-123453/3 Calibration Date: 10/31/2014 11:53  
 Instrument ID: CH732 Calib Start Date: 07/28/2014 04:52  
 GC Column: Rxi-5SilMS ID: 0.32 (mm) Calib End Date: 07/28/2014 07:56  
 Lab File ID: D1031003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
7,12-Dimethylbenz(a)anthracene	Ave	0.5964	0.5580	0.0100	4.68	5.00	-6.4	20.0
Benzo[b]fluoranthene	Ave	1.312	1.318	0.7000	5.02	5.00	0.5	20.0
Benzo[k]fluoranthene	Ave	1.316	1.242	0.7000	4.72	5.00	-5.6	20.0
Benzo[a]pyrene	Ave	1.186	1.159	0.7000	4.89	5.00	-2.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.249	1.169	0.5000	4.68	5.00	-6.4	20.0
Dibenz(a,h)anthracene	Ave	1.062	0.9835	0.4000	4.63	5.00	-7.4	20.0
Benzo[g,h,i]perylene	Ave	1.059	1.000	0.5000	4.72	5.00	-5.6	20.0
2-Fluorophenol (Surr)	Ave	1.055	1.122		5.32	5.00	6.4	20.0
Phenol-d5 (Surr)	Ave	1.564	1.533		4.90	5.00	-1.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3457	0.4023		5.82	5.00	16.4	20.0
2-Fluorobiphenyl	Ave	1.385	1.358		4.90	5.00	-1.9	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.0852	0.0879	0.0100	5.16	5.00	3.1	20.0
Terphenyl-d14 (Surr)	Ave	0.9191	0.9394		5.11	5.00	2.2	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031003.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 31-Oct-2014 11:53:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004118-003  
 Misc. Info.: CCVIS  
 Operator ID: 003200 Instrument ID: CH732  
 Sublist: chrom-BNA\_CH732\*sub4  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:20 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 31-Oct-2014 12:20:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.137	6.137	0.000	98	280571	8.00	8.00	
* 2 Naphthalene-d8	136	7.435	7.435	0.000	100	1099489	8.00	8.00	
* 3 Acenaphthene-d10	164	9.150	9.150	0.000	92	662970	8.00	8.00	
* 4 Phenanthrene-d10	188	10.603	10.603	0.000	95	1118062	8.00	8.00	
* 5 Chrysene-d12	240	14.380	14.380	0.000	97	995272	8.00	8.00	
* 6 Perylene-d12	264	17.281	17.281	0.000	97	749713	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.684	4.684	0.000	94	393656	10.0	10.6	
\$ 8 Phenol-d5	99	5.763	5.763	0.000	94	537734	10.0	9.81	
\$ 9 Nitrobenzene-d5	82	6.703	6.703	0.000	93	552857	10.0	11.6	
\$ 10 2-Fluorobiphenyl	172	8.477	8.477	0.000	100	1125632	10.0	9.81	
\$ 11 2,4,6-Tribromophenol	330	9.914	9.914	0.000	84	122782	10.0	10.3	
\$ 12 Terphenyl-d14	244	12.537	12.537	0.000	99	1168683	10.0	10.2	
13 1,4-Dioxane	88	1.500	1.500	0.000	92	145760	10.0	11.0	
14 N-Nitrosodimethylamine	74	2.082	2.082	0.000	84	216138	10.0	11.8	
15 Pyridine	79	2.141	2.141	0.000	94	384155	10.0	11.6	
21 Methyl methanesulfonate	80	4.422	4.422	0.000	90	277535	10.0	12.4	
25 Benzaldehyde	77	5.662	5.662	0.000	91	387433	10.0	12.5	
26 Phenol	94	5.779	5.779	0.000	95	611008	10.0	10.1	
27 Aniline	93	5.785	5.785	0.000	96	713566	10.0	10.2	
29 Bis(2-chloroethyl)ether	93	5.854	5.854	0.000	91	394402	10.0	9.74	
30 2-Chlorophenol	128	5.918	5.918	0.000	97	462572	10.0	10.0	
31 n-Decane	43	5.982	5.982	0.000	88	483873	10.0	10.5	
32 1,3-Dichlorobenzene	146	6.078	6.078	0.000	95	519241	10.0	9.32	
33 1,4-Dichlorobenzene	146	6.153	6.153	0.000	91	532484	10.0	9.40	
34 Benzyl alcohol	108	6.281	6.281	0.000	87	274162	10.0	10.3	
35 1,2-Dichlorobenzene	146	6.313	6.313	0.000	93	497510	10.0	9.13	
36 2-Methylphenol	108	6.404	6.404	0.000	95	422493	10.0	10.2	
37 Indene	116	6.404	6.404	0.000	87	747136	10.0	9.59	
38 2,2'-oxybis[1-chloropropan	45	6.426	6.426	0.000	88	620998	10.0	10.1	
39 N-Nitrosopyrrolidine	100	6.516	6.516	0.000	79	202916	10.0	9.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
41 N-Nitrosodi-n-propylamine	70	6.549	6.549	0.000	78	368079	10.0	11.0	
40 Acetophenone	105	6.549	6.549	0.000	91	665728	10.0	10.4	
42 4-Methylphenol	108	6.559	6.559	0.000	94	457896	10.0	10.3	
45 Hexachloroethane	117	6.666	6.666	0.000	91	215281	10.0	10.4	
46 Nitrobenzene	77	6.725	6.725	0.000	91	546100	10.0	11.5	
48 Isophorone	82	6.960	6.960	0.000	98	924934	10.0	11.0	
49 2-Nitrophenol	139	7.051	7.051	0.000	94	249252	10.0	10.2	
50 2,4-Dimethylphenol	107	7.088	7.088	0.000	99	515583	10.0	11.3	
52 Benzoic acid	122	7.147	7.147	0.000	90	124317	10.0	8.34	
53 Bis(2-chloroethoxy)methane	93	7.174	7.174	0.000	96	525396	10.0	10.2	
54 2,4-Dichlorophenol	162	7.291	7.291	0.000	96	413722	10.0	10.1	
56 1,2,4-Trichlorobenzene	180	7.377	7.377	0.000	93	490621	10.0	9.83	
58 Naphthalene	128	7.457	7.457	0.000	98	1413937	10.0	9.62	
59 4-Chloroaniline	127	7.499	7.499	0.000	93	588595	10.0	9.94	
60 2,6-Dichlorophenol	162	7.510	7.510	0.000	94	411975	10.0	9.87	
62 Hexachlorobutadiene	225	7.580	7.580	0.000	95	309490	10.0	9.97	
64 Caprolactam	113	7.804	7.804	0.000	73	119212	10.0	10.2	
67 4-Chloro-3-methylphenol	107	7.964	7.964	0.000	94	440535	10.0	11.0	
69 2-Methylnaphthalene	142	8.130	8.130	0.000	91	959373	10.0	9.53	
71 1-Methylnaphthalene	142	8.231	8.231	0.000	92	904306	10.0	9.48	
72 Hexachlorocyclopentadiene	237	8.290	8.290	0.000	96	339884	10.0	10.8	
73 1,2,4,5-Tetrachlorobenzene	216	8.301	8.301	0.000	98	513124	10.0	9.80	
74 2,4,6-Trichlorophenol	196	8.402	8.402	0.000	95	308348	10.0	10.1	
75 2,4,5-Trichlorophenol	196	8.440	8.440	0.000	92	329364	10.0	10.3	
76 1,1'-Biphenyl	154	8.579	8.579	0.000	96	1196090	10.0	9.71	
77 2-Chloronaphthalene	162	8.611	8.611	0.000	98	1008470	10.0	9.58	
79 2-Nitroaniline	65	8.696	8.696	0.000	76	330266	10.0	13.4	
82 Dimethyl phthalate	163	8.856	8.856	0.000	97	1090890	10.0	10.4	
83 1,3-Dinitrobenzene	168	8.894	8.894	0.000	80	156377	10.0	9.99	
84 2,6-Dinitrotoluene	165	8.921	8.921	0.000	89	237504	10.0	10.3	
85 Acenaphthylene	152	9.017	9.017	0.000	98	1456458	10.0	9.66	
86 3-Nitroaniline	138	9.091	9.091	0.000	87	245666	10.0	10.7	
88 Acenaphthene	153	9.182	9.182	0.000	94	969595	10.0	9.80	
87 2,4-Dinitrophenol	184	9.188	9.188	0.000	76	273656	20.0	19.9	
89 4-Nitrophenol	109	9.236	9.236	0.000	95	332889	20.0	29.8	
91 2,4-Dinitrotoluene	165	9.310	9.310	0.000	89	327336	10.0	10.8	
93 Dibenzofuran	168	9.348	9.348	0.000	96	1360604	10.0	9.44	
96 2,3,4,6-Tetrachlorophenol	232	9.423	9.423	0.000	74	272434	10.0	9.74	
95 2,3,5,6-Tetrachlorophenol	232	9.465	9.465	0.000	91	265620	10.0	9.55	
97 2-Naphthylamine	143	9.492	9.492	0.000	95	907725	10.0	9.94	
98 Diethyl phthalate	149	9.524	9.524	0.000	97	1105523	10.0	11.1	
99 Hexadecane	57	9.530	9.530	0.000	96	699335	10.0	10.4	
100 4-Chlorophenyl phenyl ethe	204	9.663	9.663	0.000	92	557427	10.0	9.40	
101 4-Nitroaniline	138	9.679	9.679	0.000	75	240979	10.0	10.8	
103 Fluorene	166	9.679	9.679	0.000	93	1056718	10.0	9.47	
104 4,6-Dinitro-2-methylphenol	198	9.711	9.711	0.000	79	391892	20.0	19.7	
105 N-Nitrosodiphenylamine	169	9.770	9.770	0.000	64	774906	10.0	9.80	
90 1,2-Diphenylhydrazine	77	9.813	9.813	0.000	98	1215415	10.0	12.1	
57 Azobenzene	77		9.813					ND	
110 4-Bromophenyl phenyl ether	248	10.133	10.133	0.000	73	310505	10.0	9.77	
112 Hexachlorobenzene	284	10.224	10.224	0.000	92	293794	10.0	9.66	
113 Atrazine	200	10.256	10.256	0.000	91	311960	10.0	10.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
116 Pentachlorophenol	266	10.400	10.400	0.000	88	330927	20.0	17.8	
115 n-Octadecane	57	10.406	10.406	0.000	93	734840	10.0	10.1	
121 Phenanthrene	178	10.630	10.630	0.000	96	1538155	10.0	9.49	
122 Anthracene	178	10.683	10.683	0.000	96	1610997	10.0	9.88	
124 Carbazole	167	10.838	10.838	0.000	96	1382845	10.0	9.96	
126 Di-n-butyl phthalate	149	11.159	11.159	0.000	100	1687987	10.0	10.8	
131 Fluoranthene	202	12.035	12.035	0.000	97	1686783	10.0	9.94	
132 Benzidine	184	12.185	12.185	0.000	98	792786	10.0	12.3	
133 Pyrene	202	12.361	12.361	0.000	98	1647665	10.0	10.3	
138 Butyl benzyl phthalate	149	13.290	13.290	0.000	98	701352	10.0	12.9	
144 3,3'-Dichlorobenzidine	252	14.289	14.289	0.000	75	450481	10.0	10.4	
145 Bis(2-ethylhexyl) phthalat	149	14.338	14.338	0.000	97	902348	10.0	12.0	
146 Benzo[a]anthracene	228	14.359	14.359	0.000	96	1442830	10.0	9.82	
147 Chrysene	228	14.434	14.434	0.000	97	1344669	10.0	9.55	
150 Di-n-octyl phthalate	149	15.641	15.641	0.000	99	1356757	10.0	11.4	
151 7,12-Dimethylbenz(a)anthra	256	16.485	16.485	0.000	1	522932	10.0	9.36	M
152 Benzo[b]fluoranthene	252	16.506	16.506	0.000	97	1235153	10.0	10.0	
153 Benzo[k]fluoranthene	252	16.565	16.565	0.000	98	1164075	10.0	9.44	
219 Benzo[e]pyrene	252	17.067	17.067	0.000	0	1090110	10.0	9.76	
154 Benzo[a]pyrene	252	17.169	17.169	0.000	84	1085884	10.0	9.77	
157 Indeno[1,2,3-cd]pyrene	276	19.658	19.658	0.000	98	1095718	10.0	9.36	
158 Dibenz(a,h)anthracene	278	19.696	19.696	0.000	88	921670	10.0	9.26	
159 Benzo[g,h,i]perylene	276	20.348	20.348	0.000	98	936989	10.0	9.44	M
S 197 Methyl Phenols, Total	108				0		20.0	20.5	
S 199 Total Cresols	108				0		20.0	20.5	

**QC Flag Legend**

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

**Reagents:**

SVTAPSTD10i\_00077

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031003.D

Injection Date: 31-Oct-2014 11:53:30

Instrument ID: CH732

Operator ID: 003200

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

Injection Vol: 2.0 ul

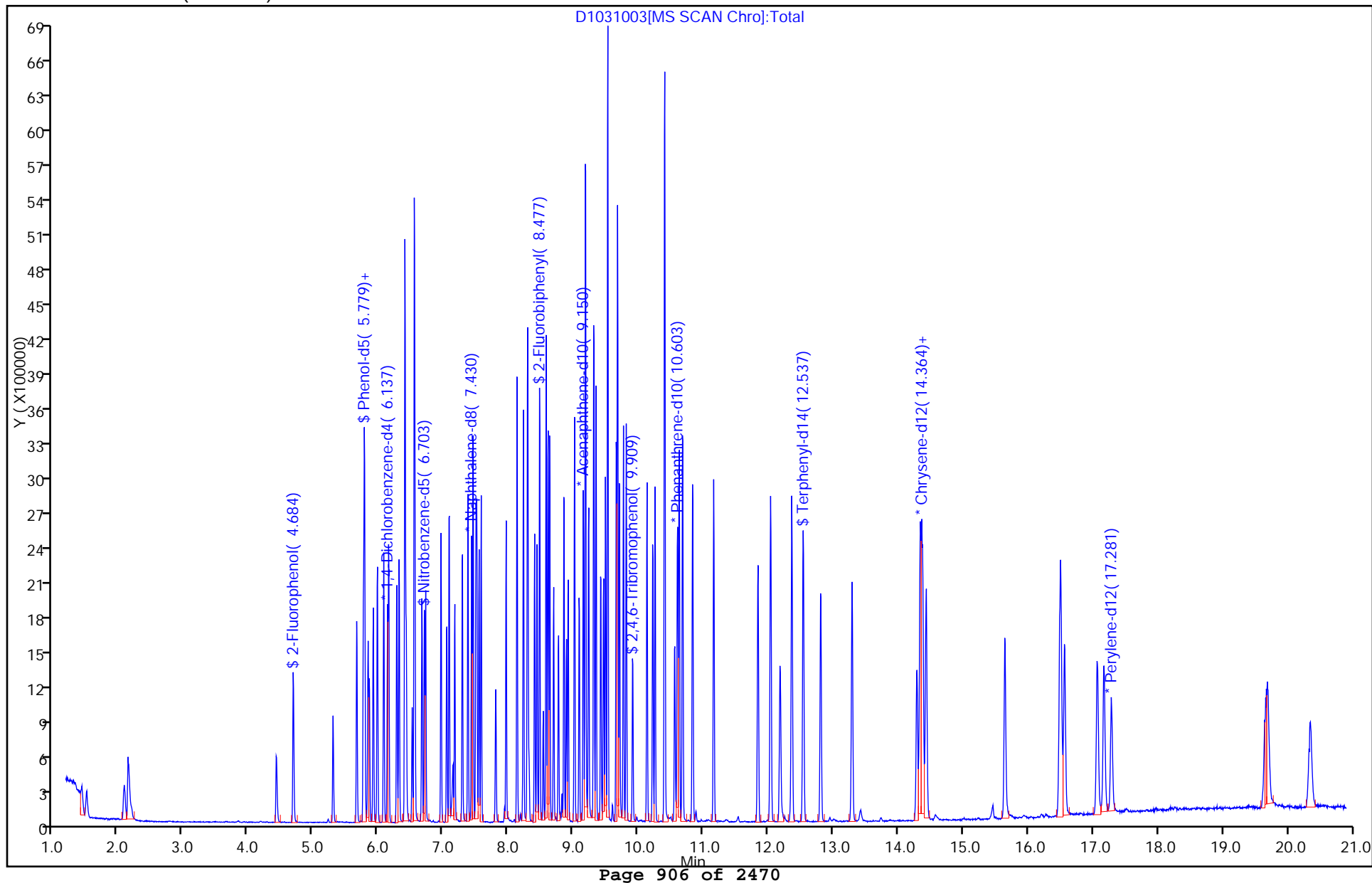
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)





## TestAmerica Pittsburgh

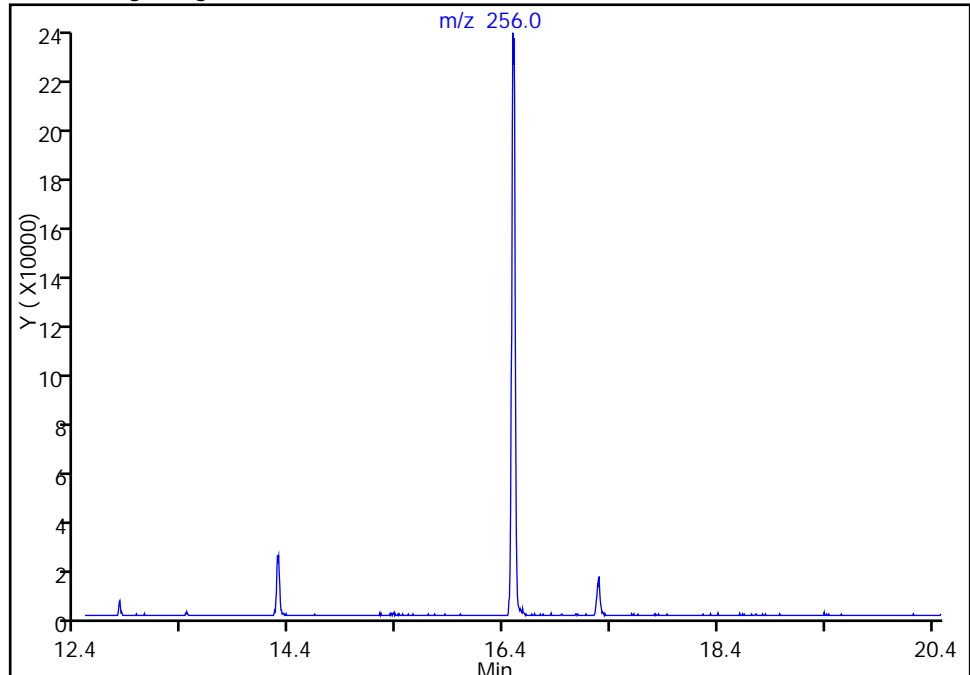
Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031003.D  
Injection Date: 31-Oct-2014 11:53:30 Instrument ID: CH732  
Lims ID: CCVIS  
Client ID:  
Operator ID: 003200 ALS Bottle#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

Worklist Smp#: 3

## 151 7,12-Dimethylbenz(a)anthracene, CAS: 57-97-6

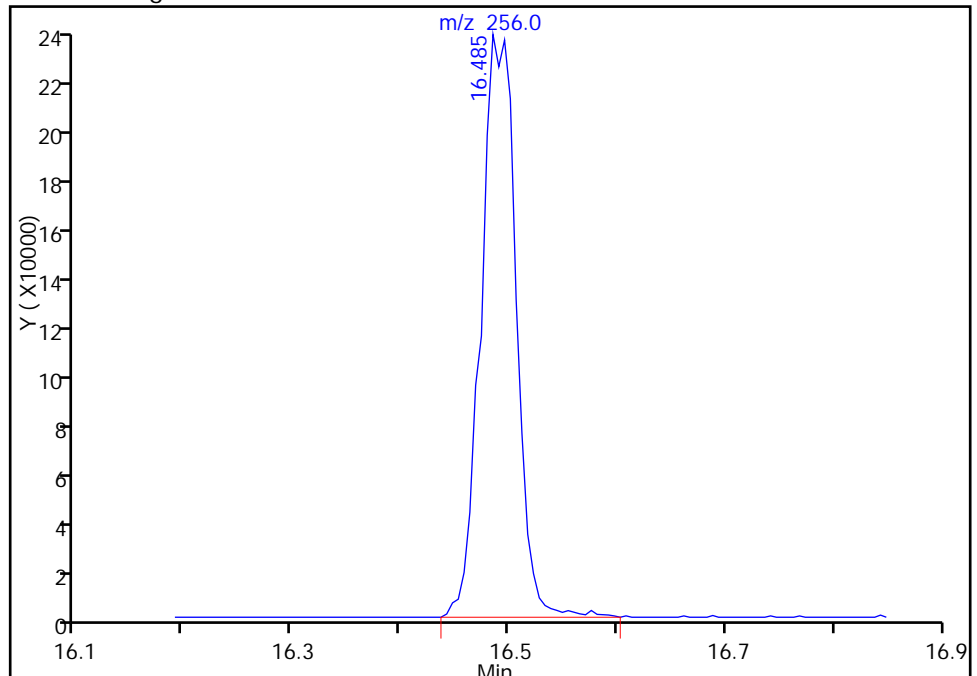
Not Detected  
Expected RT: 16.49

## Processing Integration Results



RT: 16.49  
Response: 522932  
Amount: 9.356999

## Manual Integration Results



Reviewer: piccolinov, 31-Oct-2014 12:20:22  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

## TestAmerica Pittsburgh

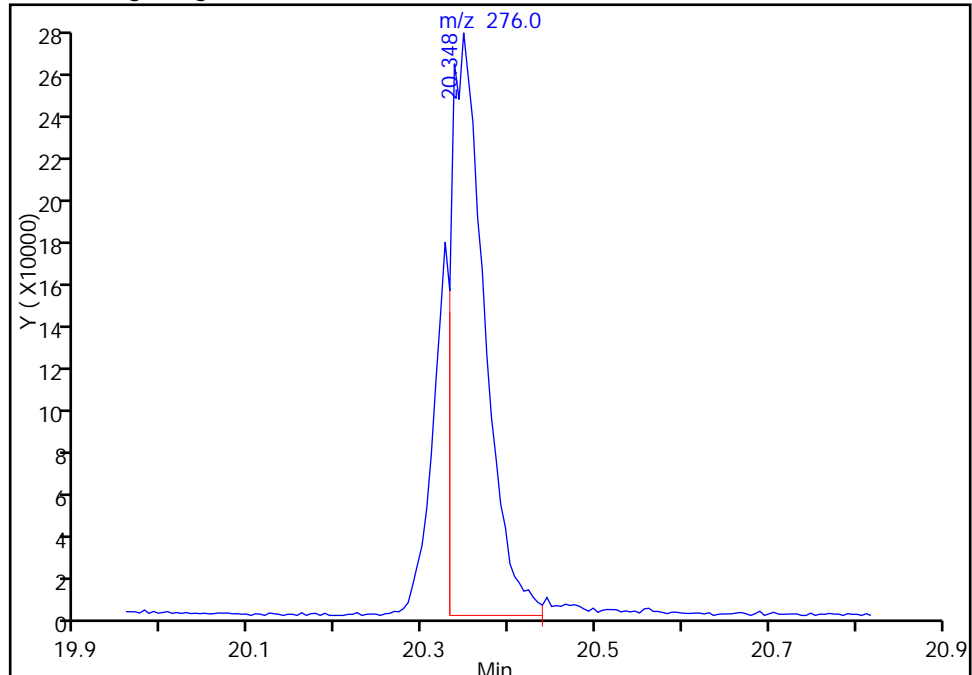
Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031003.D  
Injection Date: 31-Oct-2014 11:53:30 Instrument ID: CH732  
Lims ID: CCVIS  
Client ID:  
Operator ID: 003200 ALS Bottle#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL  
Column: Rxi-5SilMS (0.32 mm) Detector: MS SCAN

Worklist Smp#: 3

## 159 Benzo[g,h,i]perylene, CAS: 191-24-2

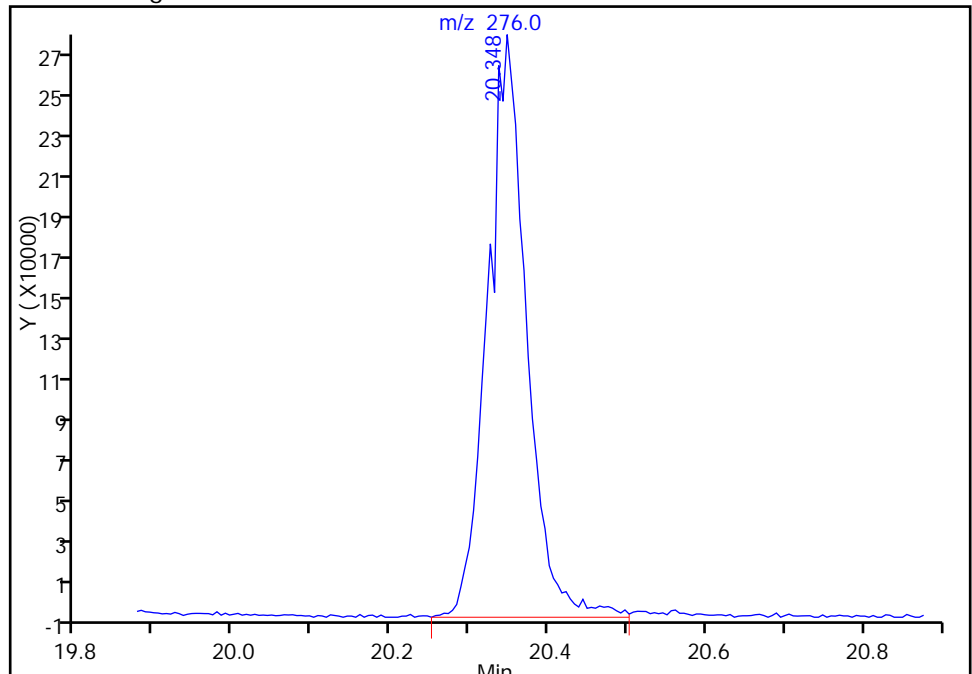
RT: 20.35  
Response: 717068  
Amount: 7.224729

## Processing Integration Results



RT: 20.35  
Response: 936989  
Amount: 9.440516

## Manual Integration Results



Reviewer: piccolinov, 31-Oct-2014 12:20:22  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D  
 Lims ID: DFTPP  
 Client ID:  
 Sample Type: DFTPP  
 Inject. Date: 28-Aug-2014 02:04:30 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002983-002  
 Misc. Info.: ,dftpp  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20140828-2983.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 28-Aug-2014 12:52:49 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK017

First Level Reviewer: piccolinov

Date: 28-Aug-2014 12:52:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.322	5.322	0.000	90	246543	NR	NR	
199 DFTPP									
200 Benzidine_T	184	7.907	7.907	0.000	99	1784903	NR	NR	
201 4,4'-DDE	246		8.343					ND	
202 4,4'-DDD	235	8.900	8.924	-0.024	83	6767		NR	
203 4,4'-DDT	235	9.413	9.413	0.000	97	824988	NR	NR	

### QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

### Reagents:

SVDFTPP50i\_00018

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D

Injection Date: 28-Aug-2014 02:04:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

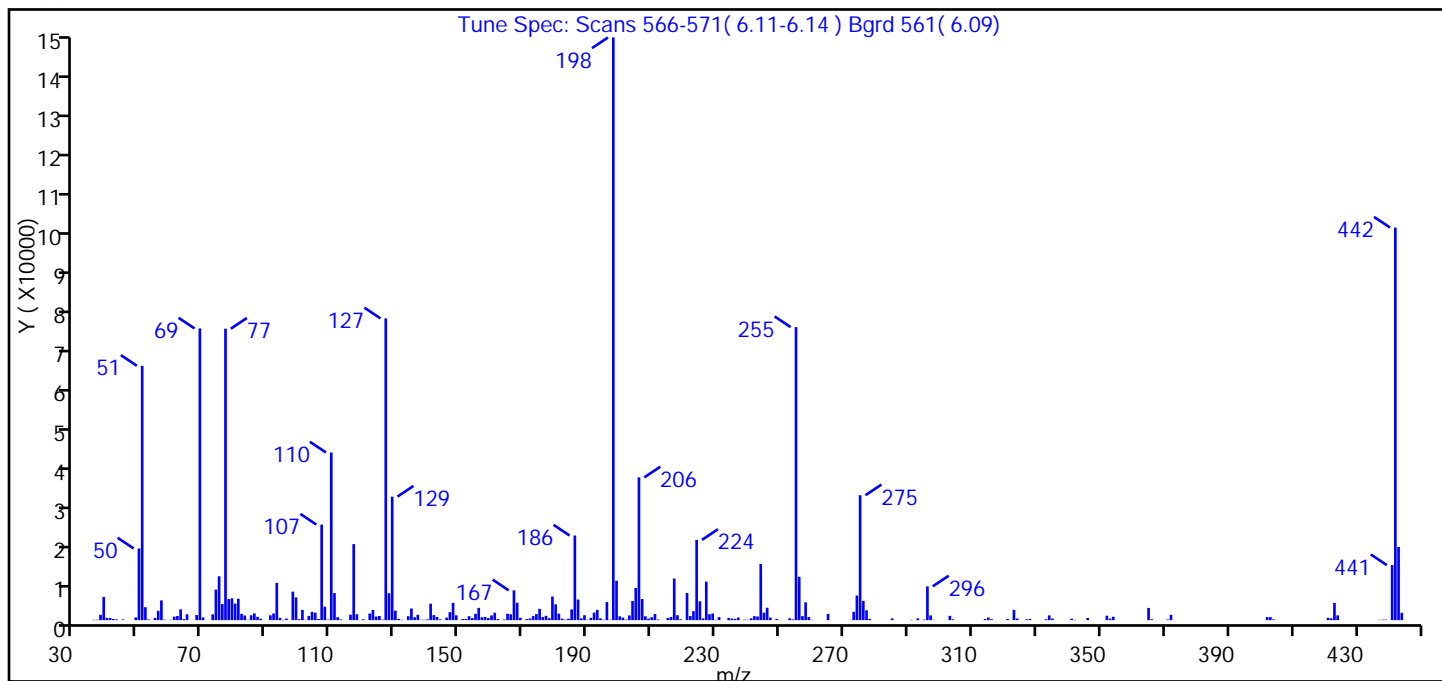
Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Tune Method: DFTPP Method 8270

## 199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.70
68	Less than 2.00% of mass 69	0.90 ( 1.70)
69	Present	50.10
70	Less than 2.00% of mass 69	0.50 ( 0.90)
127	40.00 - 60.00% of mass 198	51.80
197	Less than 1.00% of mass 198	0.10
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	21.40
365	Greater than 1.00% of mass 198	2.10
441	Present, but less than mass 443	9.40 ( 75.20)
442	Greater than 40.00% of mass 198	67.40
443	17.00 - 23.00% of mass 442	12.60 ( 18.60)

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\0828002.D\BNA\_CH731.rsl\spectra.d  
Injection Date: 28-Aug-2014 02:04:30  
Spectrum: Tune Spec: Scans 566-571( 6.11-6.14 ) Bgrd 561( 6.09)  
Base Peak: 198.00  
Minimum % Base Peak: 0  
Number of Points: 245

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	92	111.00	6866	182.00	371	254.00	191
37.00	105	112.00	749	183.00	130	255.00	74376
38.00	1358	113.00	183	184.00	346	256.00	11014
39.00	5891	116.00	1396	185.00	2739	257.00	1019
40.00	585	117.00	19304	186.00	21488	258.00	4538
41.00	531	118.00	1496	187.00	5242	259.00	801
42.00	289	120.00	232	188.00	438	260.00	85
43.00	190	122.00	1667	189.00	1252	265.00	1584
45.00	176	123.00	2588	190.00	92	272.00	85
49.00	683	124.00	922	191.00	572	273.00	2120
50.00	18200	125.00	1058	192.00	1907	274.00	6241
51.00	64568	126.00	144	193.00	2609	275.00	31712
52.00	3284	127.00	76600	194.00	447	276.00	4884
53.00	170	128.00	6837	195.00	94	277.00	2487
55.00	586	129.00	31360	196.00	4600	278.00	318
56.00	2375	130.00	2399	197.00	101	285.00	452
57.00	5005	131.00	329	198.00	147904	291.00	92
58.00	102	132.00	103	199.00	10009	293.00	468
60.00	90	134.00	1007	200.00	967	295.00	142
61.00	878	135.00	2951	201.00	653	296.00	8575
62.00	1050	136.00	720	202.00	149	297.00	1192
63.00	2744	137.00	1358	203.00	1191	298.00	90
64.00	265	138.00	87	204.00	4848	303.00	1086
65.00	1486	139.00	91	205.00	8178	304.00	217
68.00	1292	140.00	202	206.00	36240	314.00	278
69.00	74040	141.00	4175	207.00	5369	315.00	665
70.00	687	142.00	1283	208.00	985	316.00	228
73.00	1473	143.00	815	209.00	398	321.00	309
74.00	7759	144.00	202	210.00	752	323.00	2627
75.00	11148	146.00	649	211.00	1555	324.00	414
76.00	4065	147.00	2027	212.00	157	327.00	216
77.00	73984	148.00	4401	215.00	551	328.00	314
78.00	5363	149.00	1235	216.00	815	333.00	224

Report Date: 28-Aug-2014 12:52:49

Chrom Revision: 2.2 24-Jun-2014 07:21:42

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D\BNA\_CH731.rsl\spectra.d

Injection Date: 28-Aug-2014 02:04:30

Spectrum: Tune Spec: Scans 566-571( 6.11-6.14 ) Bgrd 561( 6.09)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 245

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5537	151.00	290	217.00	10563	334.00	1218
80.00	4188	152.00	304	218.00	1257	335.00	408
81.00	5433	153.00	1010	219.00	215	341.00	366
82.00	1596	154.00	518	221.00	6882	342.00	86
83.00	1184	155.00	1631	222.00	1041	346.00	559
84.00	104	156.00	3124	223.00	2282	352.00	1123
85.00	1241	157.00	734	224.00	20376	353.00	388
86.00	1708	158.00	803	225.00	4781	354.00	861
87.00	851	159.00	519	226.00	448	365.00	3102
88.00	355	160.00	1202	227.00	9780	366.00	231
91.00	1221	161.00	1892	228.00	1492	371.00	164
92.00	1696	162.00	283	229.00	1689	372.00	1359
93.00	9462	164.00	166	230.00	94	402.00	804
94.00	591	165.00	1628	231.00	764	403.00	767
95.00	83	166.00	1490	234.00	557	404.00	188
96.00	401	167.00	7574	235.00	396	421.00	604
98.00	7234	168.00	4417	236.00	334	422.00	457
99.00	5758	169.00	609	237.00	663	423.00	4385
100.00	244	171.00	263	239.00	120	424.00	1206
101.00	2594	172.00	420	240.00	86	437.00	84
102.00	84	173.00	1028	241.00	460	438.00	114
103.00	1071	174.00	1533	242.00	1017	439.00	138
104.00	2110	175.00	2869	243.00	937	441.00	13969
105.00	1896	176.00	778	244.00	14257	442.00	99648
106.00	296	177.00	1104	245.00	1903	443.00	18576
107.00	24264	178.00	507	246.00	3144	444.00	1861
108.00	3419	179.00	5998	247.00	658		
109.00	140	180.00	3999	249.00	323		
110.00	42560	181.00	1637	253.00	464		

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D  
Injection Date: 28-Aug-2014 02:04:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL

203 4,4'-DDT, Detector: MS SCAN

## SW-846 Method

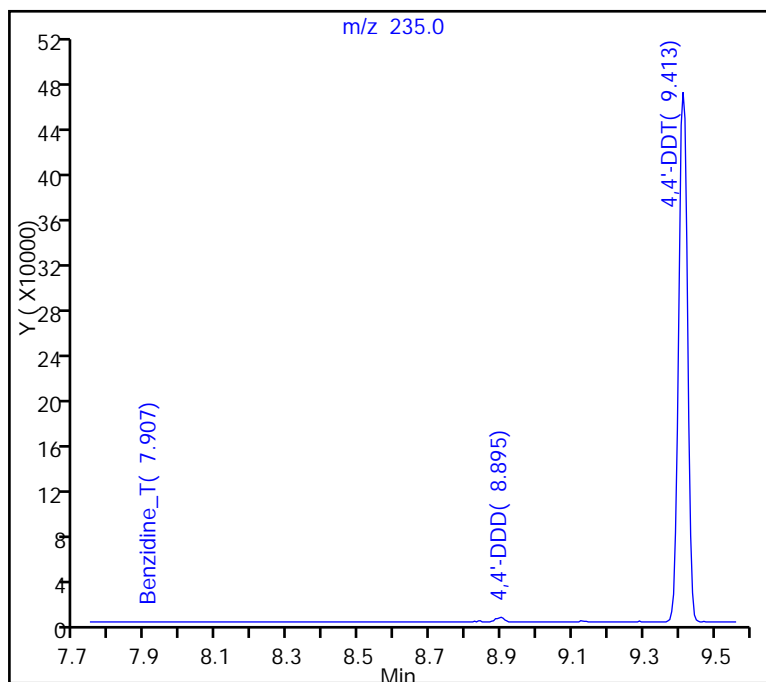
%Breakdown =  
(Area Breakdown Cpnds/  
Total Area Breakdown Cpnds) \* 100

203 4,4'-DDT, Area = 824988

201 4,4'-DDE, Area = 0

202 4,4'-DDD, Area = 6767

%Breakdown: 0.81%, Max Limit: 20.00%  
Passed



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D

Injection Date: 28-Aug-2014 02:04:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

200 Benzidine\_T, Detector: MS SCAN

Peak Tailing Factor =

BackWidth/FrontWidth @ 10% Peak Height

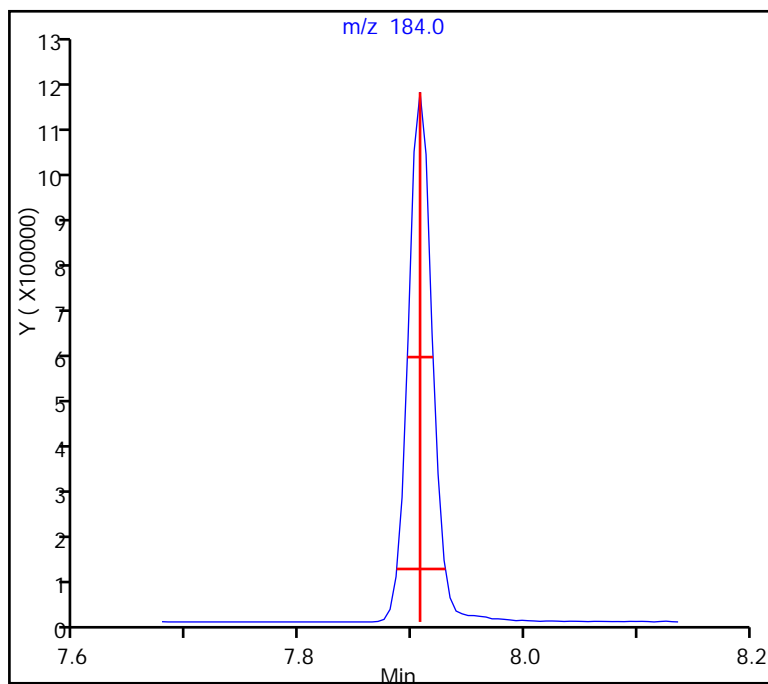
Back Width = 0.023 (min.)

Front Width = 0.021 (min.)

Tailing Factor = 1.1, Max. Tailing &lt; 2.00

Passed

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## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828002.D

Injection Date: 28-Aug-2014 02:04:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

198 Pentachlorophenol\_T, Detector: MS SCAN

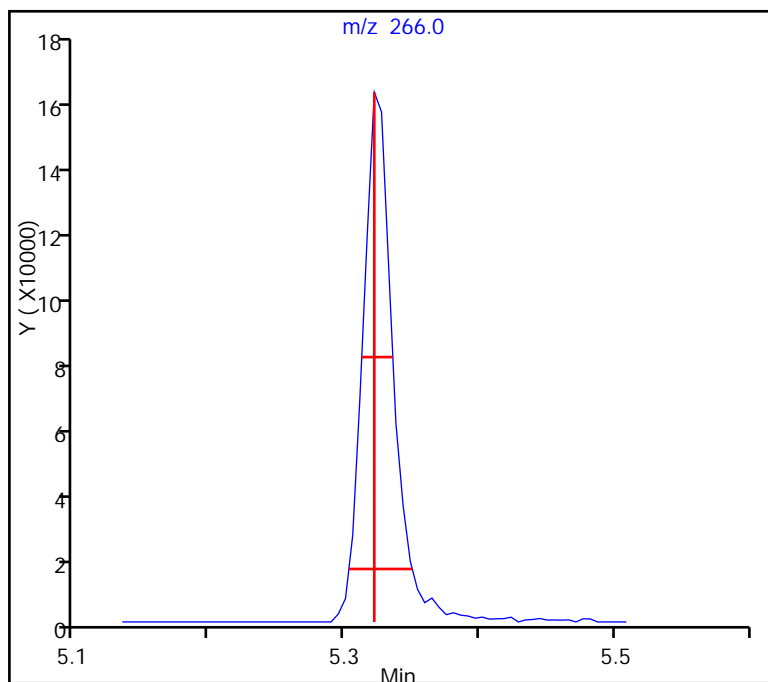
Peak Tailing Factor =  
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.028 (min.)

Front Width = 0.019 (min.)

Tailing Factor = 1.5, Max. Tailing < 2.00  
Passed

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TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028002.D  
 Lims ID: DFTPP  
 Client ID:  
 Sample Type: DFTPP  
 Inject. Date: 28-Oct-2014 12:06:30 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004041-002  
 Misc. Info.: ,dftpp  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:33 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 28-Oct-2014 13:39:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.310	5.310	0.000	83	105699	NR	NR	
199 DFTPP									
200 Benzidine_T	184	7.906	7.906	0.000	98	1180076	NR	NR	
201 4,4'-DDE	246		8.225					ND	
202 4,4'-DDD	235	8.899	8.899	0.000	1	5995		NR	
203 4,4'-DDT	235	9.417	9.417	0.000	93	621057	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

**Reagents:**

SVDFTPP50i\_00020

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028002.D

Injection Date: 28-Oct-2014 12:06:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

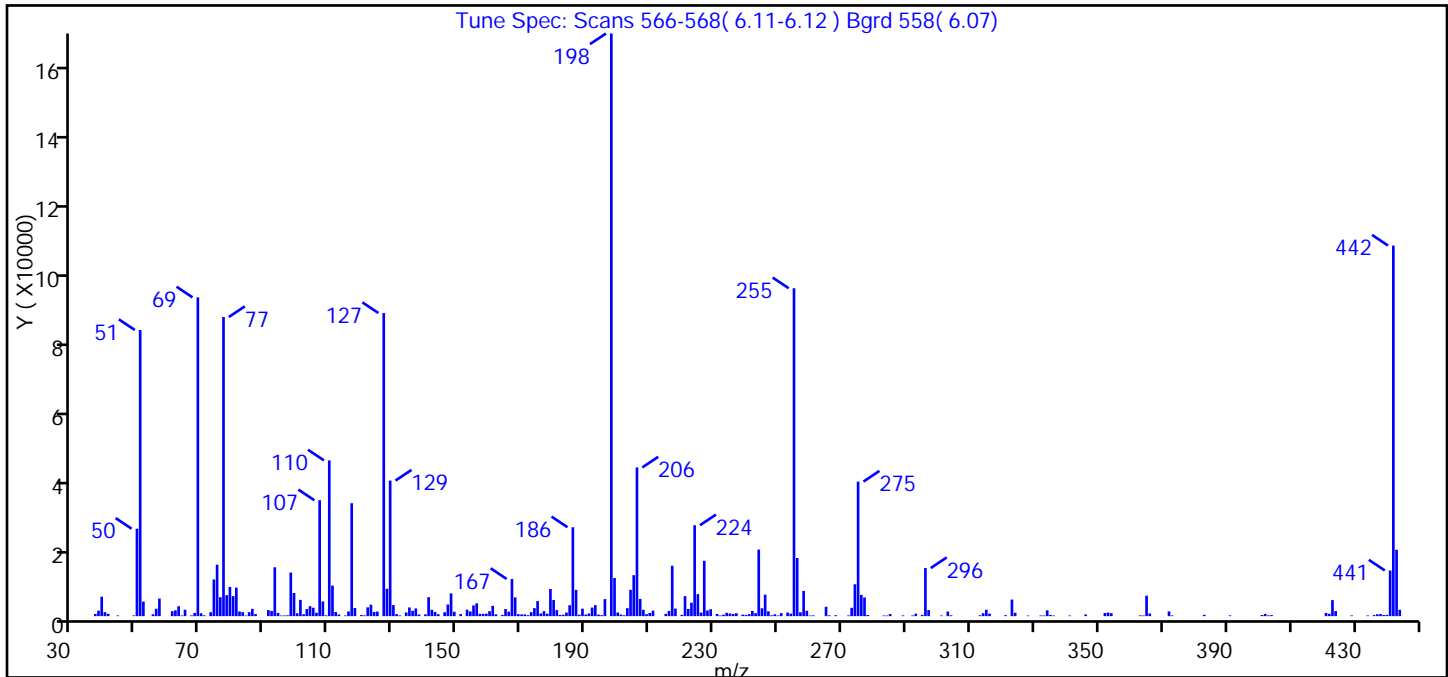
Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Tune Method: DFTPP Method 8270

## 199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	49.10
68	Less than 2.00% of mass 69	0.50 ( 1.00)
69	Present	54.70
70	Less than 2.00% of mass 69	0.50 ( 0.90)
127	40.00 - 60.00% of mass 198	52.00
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.50
275	10.00 - 30.00% of mass 198	23.10
365	Greater than 1.00% of mass 198	3.50
441	Present, but less than mass 443	7.80 ( 68.80)
442	Greater than 40.00% of mass 198	63.60
443	17.00 - 23.00% of mass 442	11.40 ( 17.90)

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\1028002.D\BNA\_CH731.rslt\spectra.d  
Injection Date: 28-Oct-2014 12:06:30  
Spectrum: Tune Spec: Scans 566-568( 6.11-6.12 ) Bgrd 558( 6.07)  
Base Peak: 198.00  
Minimum % Base Peak: 0  
Number of Points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	599	120.00	301	192.00	2361	272.00	199
38.00	1507	121.00	211	193.00	3046	273.00	2297
39.00	5354	122.00	2429	194.00	424	274.00	8788
40.00	1103	123.00	3154	195.00	273	275.00	37112
41.00	650	124.00	1171	196.00	4703	276.00	5848
44.00	191	125.00	1267	198.00	160704	277.00	5148
49.00	202	127.00	83600	199.00	10513	278.00	318
50.00	24112	128.00	7539	200.00	999	283.00	170
51.00	78920	129.00	37392	201.00	437	284.00	177
52.00	4014	130.00	3038	202.00	248	285.00	574
55.00	513	131.00	565	203.00	2206	289.00	194
56.00	2036	132.00	206	204.00	7250	292.00	200
57.00	4848	134.00	1018	205.00	11300	293.00	689
61.00	1363	135.00	2402	206.00	41016	295.00	345
62.00	1608	136.00	1482	207.00	4752	296.00	13261
63.00	2730	137.00	2131	208.00	1747	297.00	1677
64.00	192	138.00	453	209.00	533	301.00	179
65.00	1771	140.00	481	210.00	867	303.00	1265
67.00	199	141.00	5232	211.00	1515	304.00	227
68.00	872	142.00	1751	215.00	641	313.00	246
69.00	87920	143.00	1160	216.00	1446	314.00	804
70.00	795	144.00	519	217.00	13903	315.00	1770
71.00	223	146.00	1061	218.00	2078	316.00	693
73.00	1071	147.00	3216	220.00	355	321.00	266
74.00	10116	148.00	6290	221.00	5516	323.00	4571
75.00	14199	149.00	1214	222.00	1984	324.00	928
76.00	5221	151.00	562	223.00	3700	328.00	170
77.00	82504	153.00	1773	224.00	25072	332.00	192
78.00	5794	154.00	1286	225.00	6078	333.00	178
79.00	8067	155.00	2954	226.00	986	334.00	1607
80.00	5517	156.00	3530	227.00	15254	335.00	333
81.00	7879	157.00	639	228.00	1564	336.00	175
82.00	1297	158.00	631	229.00	1915	341.00	179

Report Date: 29-Oct-2014 02:22:33

Chrom Revision: 2.2 07-Oct-2014 12:16:06

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\1028002.D\BNA\_CH731.rsl\spectra.d

Injection Date: 28-Oct-2014 12:06:30

Spectrum: Tune Spec: Scans 566-568( 6.11-6.12 ) Bgrd 558( 6.07)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1112	159.00	691	231.00	596	346.00	464
84.00	171	160.00	1371	232.00	183	352.00	869
85.00	1093	161.00	2855	233.00	390	353.00	983
86.00	2018	162.00	489	234.00	922	354.00	823
87.00	570	164.00	330	235.00	733	363.00	217
91.00	1679	165.00	1961	236.00	609	364.00	170
92.00	1433	166.00	1226	237.00	810	365.00	5655
93.00	13471	167.00	10254	239.00	413	366.00	722
94.00	886	168.00	5167	240.00	337	372.00	1305
95.00	172	169.00	542	241.00	555	373.00	188
96.00	182	170.00	477	242.00	1439	383.00	359
97.00	233	171.00	480	243.00	823	391.00	204
98.00	12016	172.00	256	244.00	18360	401.00	316
99.00	6387	173.00	1097	245.00	2170	402.00	624
100.00	780	174.00	2216	246.00	5917	403.00	213
101.00	4484	175.00	4144	247.00	1326	404.00	289
102.00	523	176.00	754	248.00	226	421.00	887
103.00	1972	177.00	1370	249.00	509	422.00	658
104.00	2753	178.00	665	250.00	191	423.00	4431
105.00	2310	179.00	7487	251.00	834	424.00	1394
106.00	935	180.00	4443	253.00	1002	429.00	193
107.00	31968	181.00	1673	254.00	696	434.00	187
108.00	4052	182.00	337	255.00	90440	436.00	293
109.00	228	183.00	389	256.00	16039	437.00	518
110.00	42960	184.00	1001	257.00	1063	438.00	583
111.00	8418	185.00	3002	258.00	6956	439.00	307
112.00	1146	186.00	24520	259.00	1488	440.00	346
113.00	458	187.00	7251	260.00	173	441.00	12590
115.00	187	188.00	381	261.00	212	442.00	102208
116.00	1282	189.00	2066	265.00	2584	443.00	18304
117.00	31152	190.00	427	266.00	222	444.00	1748
118.00	2257	191.00	732	268.00	259		

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028002.D  
Injection Date: 28-Oct-2014 12:06:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL

203 4,4'-DDT, Detector: MS SCAN

## SW-846 Method

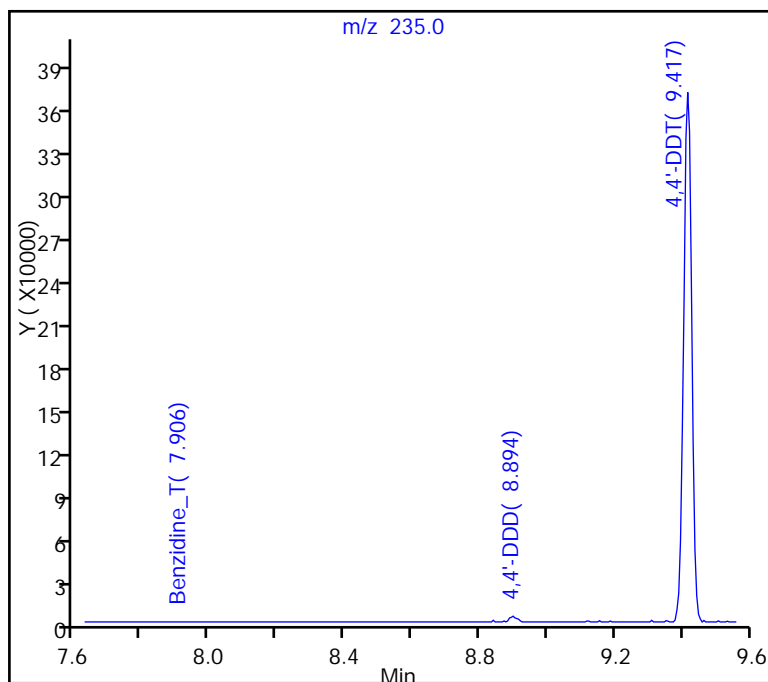
%Breakdown =  
(Area Breakdown Cpnds/  
Total Area Breakdown Cpnds) \* 100

203 4,4'-DDT, Area = 621057

201 4,4'-DDE, Area = 0

202 4,4'-DDD, Area = 5995

%Breakdown: 0.96%, Max Limit: 20.00%  
Passed



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028002.D  
Injection Date: 28-Oct-2014 12:06:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL

198 Pentachlorophenol\_T, Detector: MS SCAN

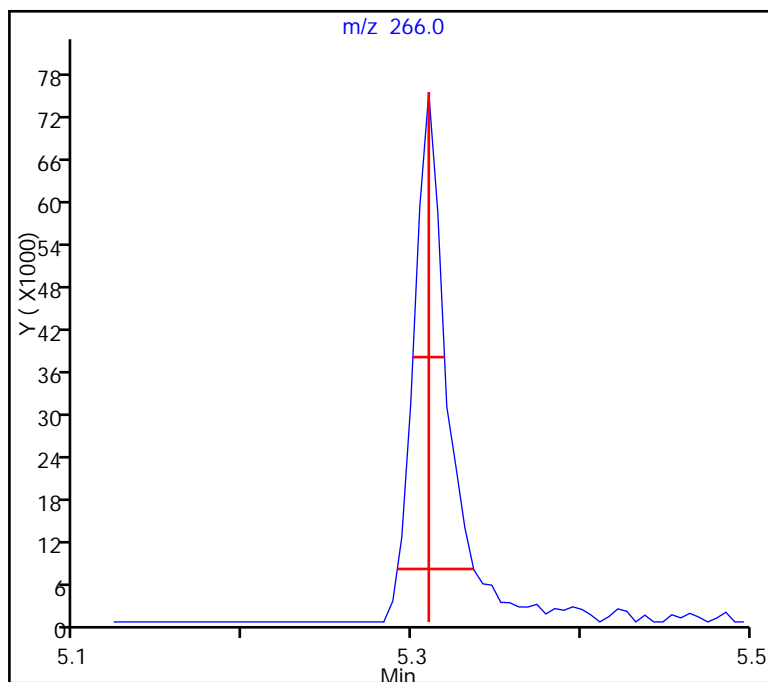
Peak Tailing Factor =  
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.027 (min.)

Front Width = 0.019 (min.)

Tailing Factor = 1.4, Max. Tailing < 2.00  
Passed

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## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028002.D

Injection Date: 28-Oct-2014 12:06:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

200 Benzidine\_T, Detector: MS SCAN

Peak Tailing Factor =

BackWidth/FrontWidth @ 10% Peak Height

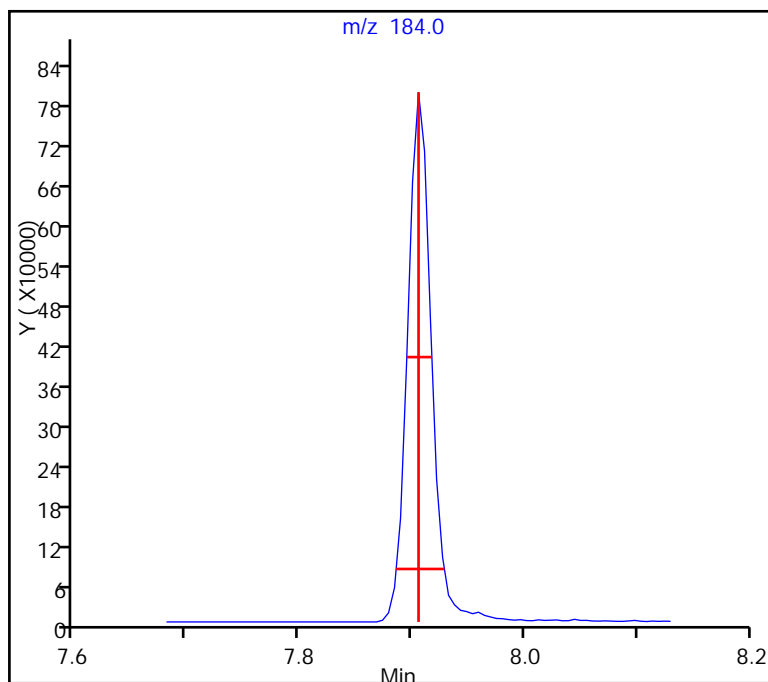
Back Width = 0.023 (min.)

Front Width = 0.020 (min.)

Tailing Factor = 1.2, Max. Tailing &lt; 2.00

Passed

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TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030002.D  
 Lims ID: DFTPP  
 Client ID:  
 Sample Type: DFTPP  
 Inject. Date: 30-Oct-2014 08:58:30 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004095-002  
 Misc. Info.: ,dftpp  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:29 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 31-Oct-2014 01:59:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
198 Pentachlorophenol_T	266	5.288	5.288	0.000	86	182434	NR	NR	
199 DFTPP									
200 Benzidine_T	184	7.878	7.878	0.000	98	1620675	NR	NR	
201 4,4'-DDE	246		8.225					ND	
202 4,4'-DDD	235	8.867	8.899	-0.032	91	10362		NR	
203 4,4'-DDT	235	9.374	9.374	0.000	95	798557	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

**Reagents:**

SVDFTPP50i\_00020

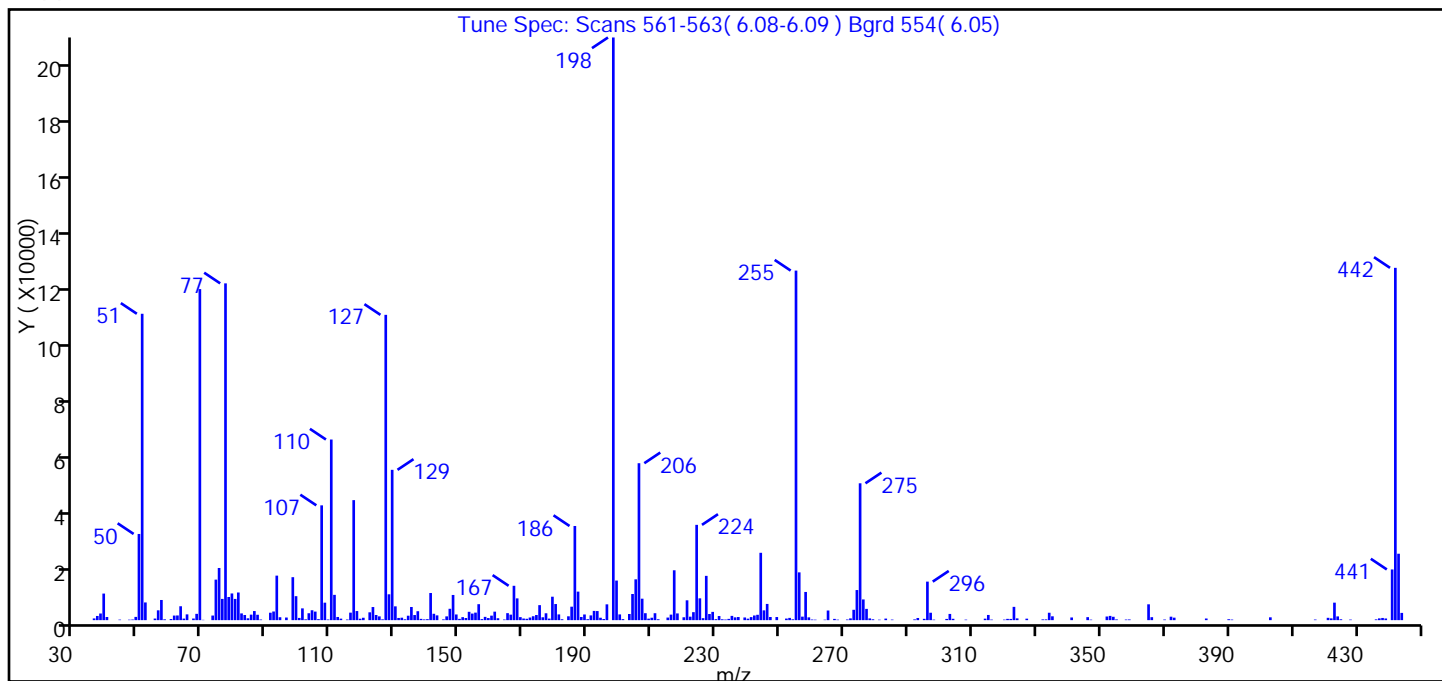
Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030002.D  
Injection Date: 30-Oct-2014 08:58:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL  
Tune Method: DFTPP Method 8270

## 199 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	52.60
68	Less than 2.00% of mass 69	1.10 ( 1.90)
69	Present	56.80
70	Less than 2.00% of mass 69	0.10 ( 0.10)
127	40.00 - 60.00% of mass 198	52.40
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	23.50
365	Greater than 1.00% of mass 198	2.70
441	Present, but less than mass 443	8.70 ( 76.30)
442	Greater than 40.00% of mass 198	60.50
443	17.00 - 23.00% of mass 442	11.40 ( 18.90)

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\1030002.D\BNA\_CH731.rsl\spectra.d  
Injection Date: 30-Oct-2014 08:58:30  
Spectrum: Tune Spec: Scans 561-563( 6.08-6.09 ) Bgrd 554( 6.05)  
Base Peak: 198.00  
Minimum % Base Peak: 0  
Number of Points: 269

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	618	120.00	862	192.00	3324	274.00	10838
37.00	1505	122.00	2820	193.00	3274	275.00	49288
38.00	2393	123.00	4719	194.00	866	276.00	7456
39.00	9571	124.00	1854	195.00	399	277.00	4055
40.00	1132	125.00	1359	196.00	5694	278.00	628
44.00	189	126.00	290	198.00	209856	279.00	303
47.00	166	127.00	109960	199.00	14256	281.00	168
48.00	225	128.00	9311	200.00	2066	283.00	557
49.00	1170	129.00	54136	201.00	363	285.00	197
50.00	31040	130.00	4971	203.00	2214	292.00	269
51.00	110344	131.00	790	204.00	9416	293.00	779
52.00	6376	132.00	882	205.00	14701	295.00	472
55.00	574	133.00	308	206.00	56520	296.00	13874
56.00	3539	134.00	1595	207.00	7728	297.00	2667
57.00	7260	135.00	4732	208.00	2500	298.00	188
58.00	290	136.00	1839	209.00	539	302.00	436
60.00	394	137.00	3219	210.00	869	303.00	2236
61.00	1648	138.00	461	211.00	2495	304.00	486
62.00	1687	139.00	260	212.00	326	308.00	185
63.00	5004	140.00	354	215.00	930	314.00	535
64.00	558	141.00	9773	216.00	1989	315.00	1868
65.00	2080	142.00	2294	217.00	17960	316.00	200
67.00	584	143.00	1719	218.00	2422	320.00	189
68.00	2269	145.00	274	220.00	1034	321.00	459
69.00	119232	146.00	1359	221.00	7143	322.00	437
70.00	109	147.00	4093	222.00	1248	323.00	4784
73.00	1656	148.00	9070	223.00	2874	324.00	631
74.00	14593	149.00	2045	224.00	34320	327.00	531
75.00	18784	150.00	457	225.00	7857	332.00	270
76.00	7647	151.00	1077	226.00	709	333.00	275
77.00	121296	152.00	769	227.00	15948	334.00	2665
78.00	8336	153.00	3003	228.00	2205	335.00	1382
79.00	9613	154.00	2363	229.00	2976	341.00	963

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\1030002.D\BNA\_CH731.rsl\spectra.d

Injection Date: 30-Oct-2014 08:58:30

Spectrum: Tune Spec: Scans 561-563( 6.08-6.09 ) Bgrd 554( 6.05)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 269

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	7642	155.00	2710	230.00	353	346.00	1076
81.00	9959	156.00	5748	231.00	1485	347.00	179
82.00	2424	157.00	369	232.00	309	352.00	1308
83.00	1848	158.00	1179	233.00	218	353.00	1530
84.00	667	159.00	751	234.00	455	354.00	1210
85.00	1981	160.00	1621	235.00	1535	355.00	267
86.00	3272	161.00	3059	236.00	1002	358.00	215
87.00	1939	162.00	686	237.00	1121	359.00	248
88.00	218	164.00	220	239.00	960	365.00	5702
91.00	2672	165.00	2518	240.00	533	366.00	1067
92.00	3116	166.00	1981	241.00	1094	370.00	220
93.00	16033	167.00	12372	242.00	1681	372.00	1242
94.00	1051	168.00	7837	243.00	1927	373.00	893
96.00	943	169.00	1084	244.00	24256	383.00	589
98.00	15472	170.00	583	245.00	3527	390.00	326
99.00	8635	171.00	492	246.00	5838	391.00	205
100.00	798	172.00	942	247.00	1134	403.00	1021
101.00	4241	173.00	1407	249.00	1117	417.00	216
102.00	289	174.00	1844	252.00	569	421.00	838
103.00	2489	175.00	5405	253.00	810	422.00	634
104.00	3564	176.00	1035	254.00	304	423.00	6299
105.00	3081	177.00	2476	255.00	125896	424.00	1345
106.00	359	178.00	558	256.00	17208	425.00	308
107.00	41344	179.00	8439	257.00	1263	428.00	197
108.00	6292	180.00	5801	258.00	10154	436.00	276
109.00	235	181.00	2066	259.00	1005	437.00	636
110.00	65056	182.00	317	260.00	225	438.00	787
111.00	9108	184.00	1387	261.00	170	439.00	598
112.00	1140	185.00	4846	264.00	169	441.00	18256
113.00	539	186.00	33912	265.00	3471	442.00	126888
115.00	223	187.00	10272	267.00	451	443.00	23920
116.00	2701	188.00	1137	268.00	176	444.00	2611
117.00	43224	189.00	2044	271.00	232		
118.00	3273	190.00	342	272.00	634		

Report Date: 31-Oct-2014 02:42:30

Chrom Revision: 2.2 07-Oct-2014 12:16:06

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\1030002.D\BNA\_CH731.rslt\spectra.d

Injection Date: 30-Oct-2014 08:58:30

Spectrum: Tune Spec: Scans 561-563( 6.08-6.09 ) Bgrd 554( 6.05)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 269

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	514	191.00	1708	273.00	3728		

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030002.D  
Injection Date: 30-Oct-2014 08:58:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL

203 4,4'-DDT, Detector: MS SCAN

## SW-846 Method

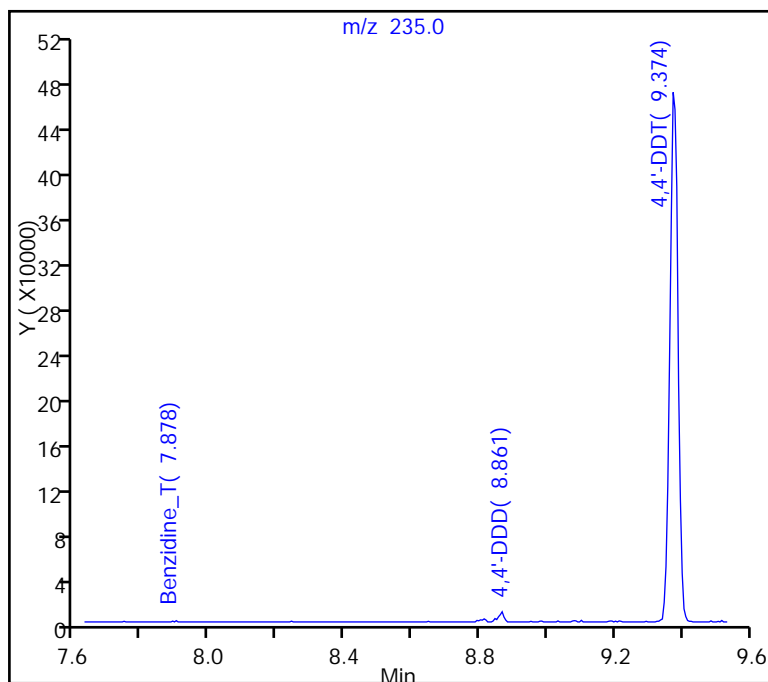
%Breakdown =  
(Area Breakdown Cpnds/  
Total Area Breakdown Cpnds) \* 100

203 4,4'-DDT, Area = 798557

201 4,4'-DDE, Area = 0

202 4,4'-DDD, Area = 10362

%Breakdown: 1.28%, Max Limit: 20.00%  
Passed



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030002.D

Injection Date: 30-Oct-2014 08:58:30

Instrument ID: CH731

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

200 Benzidine\_T, Detector: MS SCAN

Peak Tailing Factor =

BackWidth/FrontWidth @ 10% Peak Height

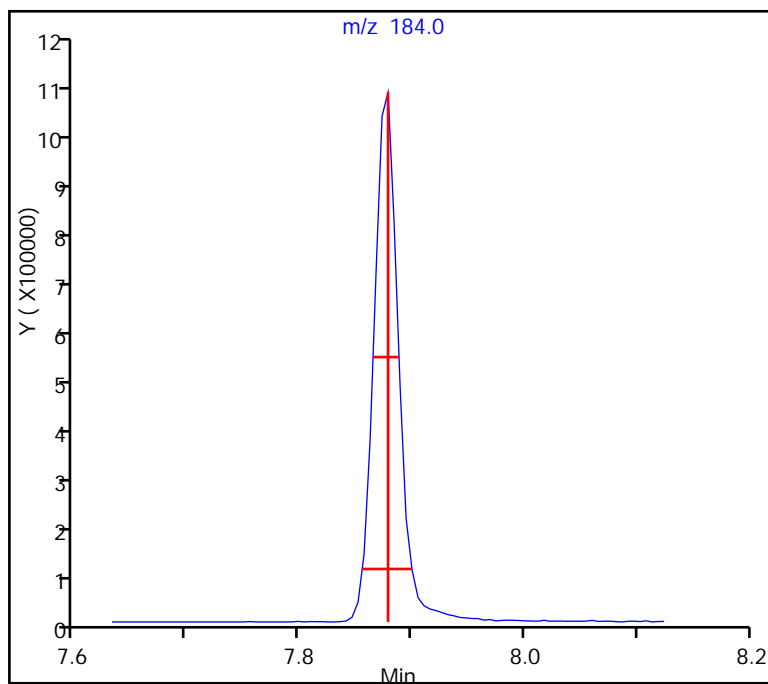
Back Width = 0.021 (min.)

Front Width = 0.023 (min.)

Tailing Factor = 0.9, Max. Tailing &lt; 2.00

Passed

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## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030002.D  
Injection Date: 30-Oct-2014 08:58:30 Instrument ID: CH731  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH731 Limit Group: BNA 8270D ICAL

198 Pentachlorophenol\_T, Detector: MS SCAN

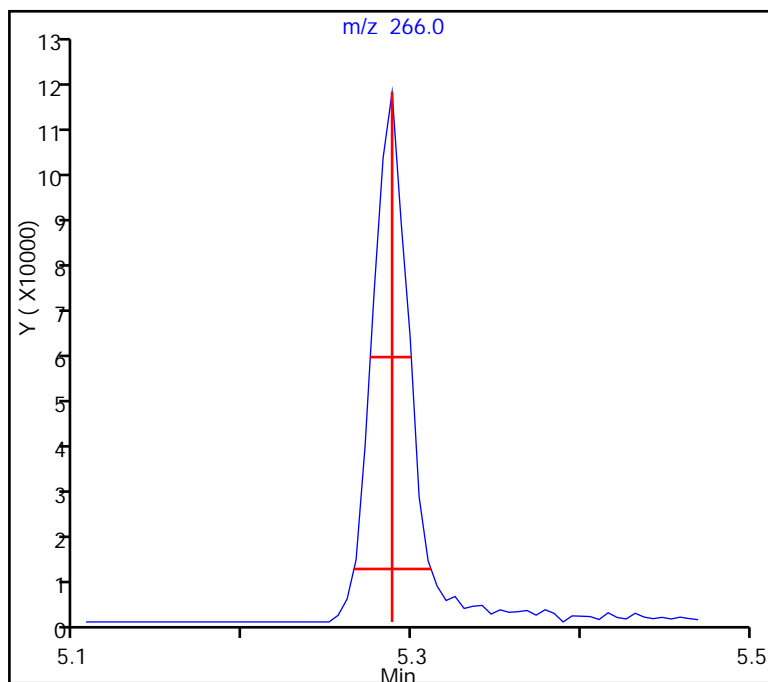
Peak Tailing Factor =  
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.023 (min.)

Front Width = 0.023 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00  
Passed

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TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D  
 Lims ID: DFTPP  
 Client ID:  
 Sample Type: DFTPP  
 Inject. Date: 28-Jul-2014 04:36:30 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0002436-002  
 Misc. Info.: DFTPP  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20140728-2436.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 04-Aug-2014 06:10:34 Calib Date: 28-Jul-2014 07:56:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728010.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
189 Pentachlorophenol_T	266	5.515	5.515	0.000	94	192375	NR	NR	
190 DFTPP									
191 Benzidine_T	184	8.170	8.170	0.000	99	1645930	NR	NR	
192 4,4'-DDE	246		8.528					ND	
193 4,4'-DDD	235		9.441					ND	
194 4,4'-DDT	235	9.831	9.831	0.000	99	770412	NR	NR	

### QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

### Reagents:

SVDFTPP50i\_00020

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D

Injection Date: 28-Jul-2014 04:36:30

Instrument ID: CH732

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

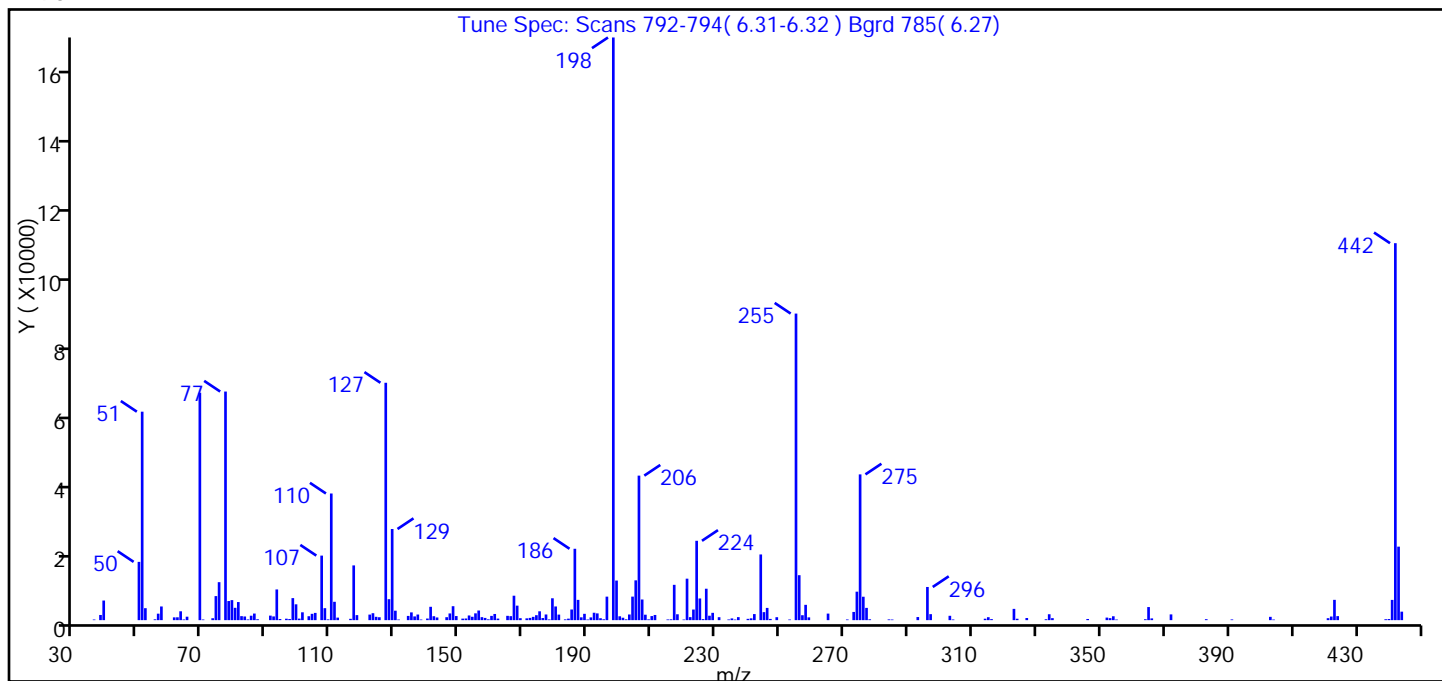
Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Tune Method: DFTPP Method 8270

## 190 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.80
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Present	39.00
70	Less than 2.00% of mass 69	0.10 ( 0.30)
127	40.00 - 60.00% of mass 198	40.70
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	25.00
365	Greater than 1.00% of mass 198	2.20
441	Present, but less than mass 443	3.50 ( 27.50)
442	Greater than 40.00% of mass 198	64.70
443	17.00 - 23.00% of mass 442	12.60 ( 19.50)

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D\BNA\_CH732.rslt\spectra.d  
Injection Date: 28-Jul-2014 04:36:30  
Spectrum: Tune Spec: Scans 792-794( 6.31-6.32 ) Bgrd 785( 6.27)  
Base Peak: 198.00  
Minimum % Base Peak: 0  
Number of Points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	175	123.00	1934	187.00	5654	256.00	12536
38.00	1443	124.00	928	188.00	784	257.00	1373
39.00	5467	125.00	810	189.00	1766	258.00	4269
50.00	16251	127.00	66200	190.00	175	259.00	776
51.00	58136	128.00	5842	191.00	765	265.00	1827
52.00	3335	129.00	25416	192.00	2065	271.00	190
55.00	230	130.00	2635	193.00	1884	273.00	2285
56.00	1806	131.00	173	194.00	532	274.00	7939
57.00	3813	134.00	1178	195.00	240	275.00	40648
61.00	777	135.00	2164	196.00	6556	276.00	6529
62.00	795	136.00	1041	198.00	162496	277.00	3419
63.00	2468	137.00	1566	199.00	11042	278.00	242
64.00	196	138.00	169	200.00	1076	284.00	208
65.00	962	140.00	448	201.00	673	285.00	169
69.00	63416	141.00	3722	202.00	229	293.00	864
70.00	180	142.00	1096	203.00	1578	296.00	9251
73.00	534	143.00	744	204.00	6562	297.00	1673
74.00	6707	146.00	822	205.00	11101	303.00	1212
75.00	10589	147.00	1869	206.00	40304	304.00	184
77.00	63752	148.00	3886	207.00	5758	314.00	400
78.00	5329	149.00	1141	208.00	1516	315.00	819
79.00	5584	151.00	427	209.00	218	316.00	292
80.00	3438	152.00	462	210.00	1135	323.00	3143
81.00	5044	153.00	1305	211.00	1443	324.00	388
82.00	1115	154.00	940	215.00	194	327.00	593
83.00	1023	155.00	1896	216.00	230	333.00	249
84.00	197	156.00	2684	217.00	9849	334.00	1646
85.00	1236	157.00	833	218.00	1638	335.00	558
86.00	1839	158.00	623	220.00	170	346.00	323
87.00	249	159.00	229	221.00	11566	352.00	709
91.00	1260	160.00	1187	222.00	840	353.00	558
92.00	1037	161.00	1722	223.00	2959	354.00	1080
93.00	8561	162.00	434	224.00	22128	355.00	173

Report Date: 04-Aug-2014 06:10:35

Chrom Revision: 2.2 24-Jun-2014 07:21:42

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D\BNA\_CH732.rslt\spectra.d

Injection Date: 28-Jul-2014 04:36:30

Spectrum: Tune Spec: Scans 792-794( 6.31-6.32 ) Bgrd 785( 6.27)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
94.00	312	165.00	1202	225.00	6045	364.00	252
96.00	402	166.00	1114	226.00	287	365.00	3650
97.00	311	167.00	6814	227.00	8760	366.00	489
98.00	6143	168.00	4043	228.00	1234	372.00	1603
99.00	4417	169.00	542	229.00	2038	383.00	268
100.00	425	171.00	499	231.00	823	391.00	198
101.00	2187	172.00	626	234.00	187	403.00	920
103.00	1095	173.00	918	235.00	483	404.00	167
104.00	1760	174.00	1378	236.00	170	421.00	545
105.00	2021	175.00	2465	237.00	841	422.00	1007
107.00	18000	176.00	587	240.00	361	423.00	5661
108.00	3339	177.00	1580	241.00	505	424.00	1121
109.00	215	178.00	199	242.00	1691	439.00	252
110.00	35320	179.00	6099	244.00	18320	440.00	313
111.00	5118	180.00	3815	245.00	2234	441.00	5645
112.00	703	181.00	1546	246.00	3411	442.00	105128
116.00	372	183.00	216	247.00	344	443.00	20496
117.00	15265	184.00	418	249.00	820	444.00	2366
118.00	1402	185.00	2970	253.00	182		
122.00	1547	186.00	19904	255.00	85496		

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D

Injection Date: 28-Jul-2014 04:36:30

Instrument ID: CH732

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

194 4,4'-DDT, Detector: MS SCAN

## SW-846 Method

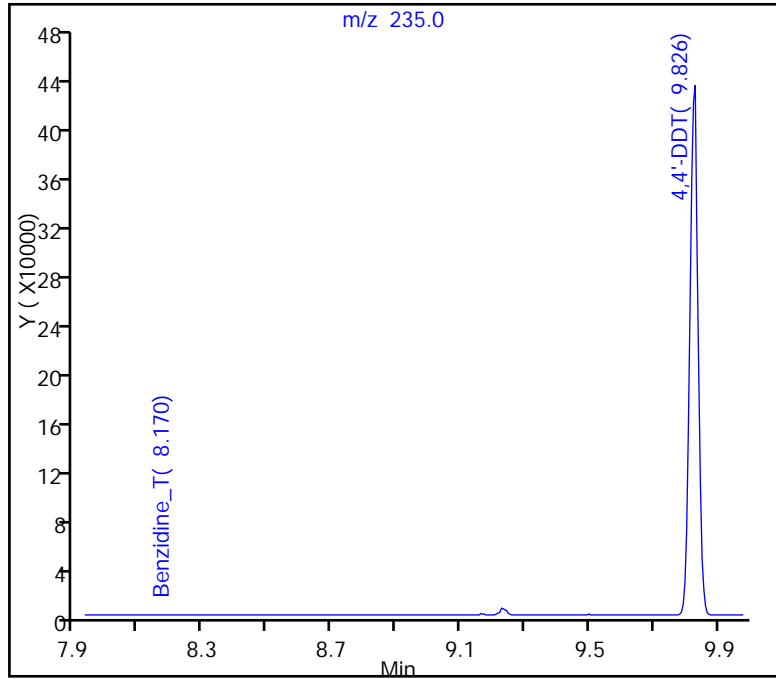
%Breakdown =

$$\left( \frac{\text{Area Breakdown Cpnds}}{\text{Total Area Breakdown Cpnds}} \right) * 100$$

194 4,4'-DDT, Area = 770412

192 4,4'-DDE, Area = 0

193 4,4'-DDD, Area = 0

%Breakdown: 0.00%, Max Limit: 20.00%  
Passed

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D

Injection Date: 28-Jul-2014 04:36:30

Instrument ID: CH732

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

191 Benzidine\_T, Detector: MS SCAN

Peak Tailing Factor =

BackWidth/FrontWidth @ 10% Peak Height

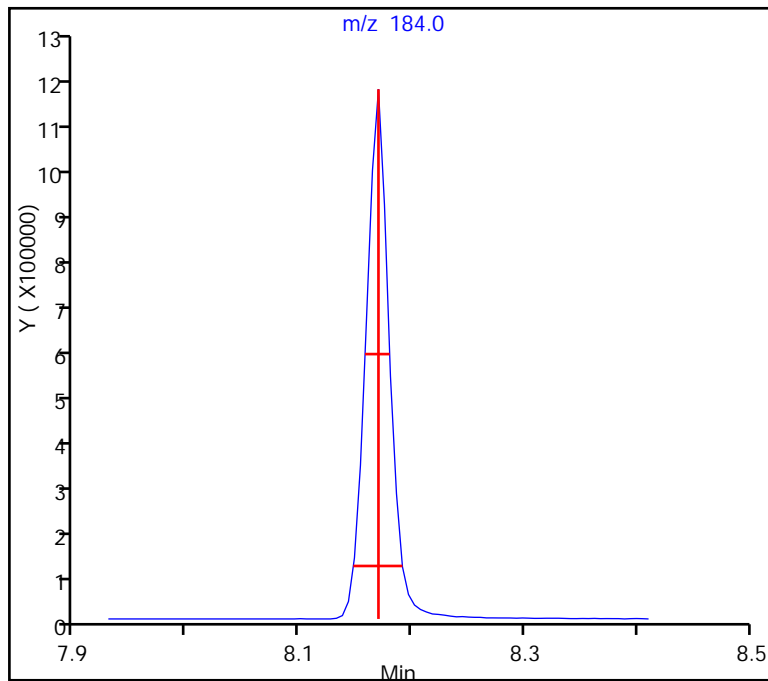
Back Width = 0.021 (min.)

Front Width = 0.022 (min.)

Tailing Factor = 1.0, Max. Tailing &lt; 2.00

Passed

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## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20140728-2436.b\D0728002.D

Injection Date: 28-Jul-2014 04:36:30

Instrument ID: CH732

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

189 Pentachlorophenol\_T, Detector: MS SCAN

Peak Tailing Factor =

BackWidth/FrontWidth @ 10% Peak Height

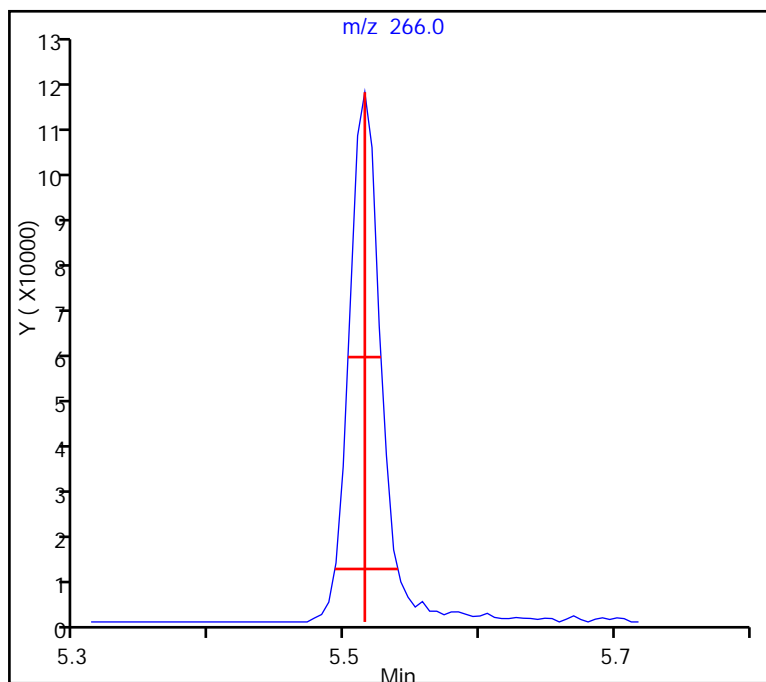
Back Width = 0.025 (min.)

Front Width = 0.022 (min.)

Tailing Factor = 1.1, Max. Tailing &lt; 2.00

Passed

-----



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D  
 Lims ID: DFTPP  
 Client ID:  
 Sample Type: DFTPP  
 Inject. Date: 31-Oct-2014 11:38:30 ALS Bottle#: 1 Worklist Smp#: 2  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004118-002  
 Misc. Info.: DFTPP  
 Operator ID: 003200 Instrument ID: CH732  
 Method: \\PITCHROM\ChromData\CH732\20141031-4118.b\BNA\_CH732.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 01-Nov-2014 12:48:19 Calib Date: 09-Oct-2014 16:45:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH732\20141009-3729.b\D1009011.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: piccolinov

Date: 31-Oct-2014 12:17:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
189 Pentachlorophenol_T	266	5.568	5.568	0.000	89	271171	NR	NR	
190 DFTPP									
191 Benzidine_T	184	8.223	8.223	0.000	99	2166820	NR	NR	
192 4,4'-DDE	246	8.570	8.570	0.000	1	585		NR	
193 4,4'-DDD	235		9.441					ND	
194 4,4'-DDT	235	9.895	9.895	0.000	97	1108380	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

**Reagents:**

SVDFTPP50i\_00020

Amount Added: 1.00

Units: mL



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D

Injection Date: 31-Oct-2014 11:38:30

Instrument ID: CH732

Lims ID: DFTPP

Client ID:

Operator ID: 003200

ALS Bottle#: 1 Worklist Smp#: 2

Injection Vol: 2.0 ul

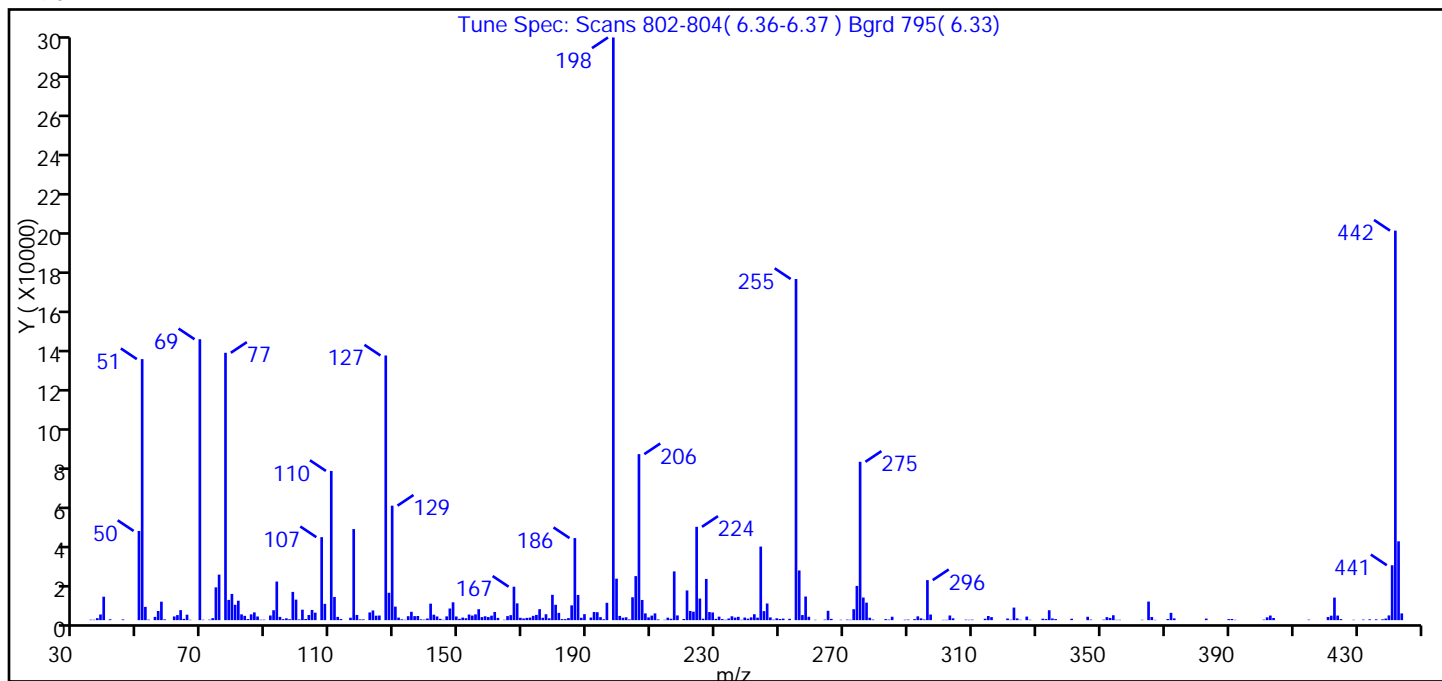
Dil. Factor: 1.0000

Method: BNA\_CH732

Limit Group: BNA 8270D ICAL

Tune Method: DFTPP Method 8270

## 190 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.80
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Present	48.20
70	Less than 2.00% of mass 69	0.10 ( 0.10)
127	40.00 - 60.00% of mass 198	45.40
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.10
275	10.00 - 30.00% of mass 198	27.20
365	Greater than 1.00% of mass 198	3.20
441	Present, but less than mass 443	9.40 ( 69.70)
442	Greater than 40.00% of mass 198	66.80
443	17.00 - 23.00% of mass 442	13.50 ( 20.20)

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\1031002.D\BNA\_CH732.rsl\spectra.d  
Injection Date: 31-Oct-2014 11:38:30  
Spectrum: Tune Spec: Scans 802-804( 6.36-6.37 ) Bgrd 795( 6.33)  
Base Peak: 198.00  
Minimum % Base Peak: 0  
Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	232	128.00	13690	202.00	1418	289.00	219
36.00	207	129.00	57272	203.00	368	290.00	277
37.00	991	130.00	6763	204.00	11445	292.00	524
38.00	2847	131.00	1275	205.00	22032	293.00	1903
39.00	11733	132.00	426	206.00	83056	294.00	913
41.00	427	133.00	185	207.00	10094	295.00	329
45.00	359	134.00	1976	208.00	3376	296.00	20024
50.00	44616	135.00	4184	209.00	1387	297.00	2810
51.00	130600	136.00	2016	210.00	2272	301.00	170
52.00	6638	137.00	2080	211.00	3375	302.00	170
53.00	254	138.00	393	212.00	372	303.00	2334
55.00	1625	139.00	256	214.00	177	304.00	905
56.00	4582	140.00	814	215.00	1238	308.00	244
57.00	9238	141.00	8248	216.00	684	309.00	180
58.00	385	142.00	2727	217.00	24384	310.00	238
61.00	1851	143.00	1843	218.00	2364	314.00	708
62.00	2525	144.00	639	220.00	587	315.00	2071
63.00	5006	145.00	183	221.00	14851	316.00	1513
64.00	653	146.00	1895	222.00	4594	321.00	823
65.00	2720	147.00	5818	223.00	4223	322.00	222
66.00	178	148.00	8932	224.00	46688	323.00	6278
69.00	140544	149.00	1839	225.00	10805	324.00	855
70.00	208	150.00	644	226.00	710	325.00	180
72.00	252	151.00	1288	227.00	20624	327.00	1781
73.00	990	152.00	953	228.00	4045	328.00	198
74.00	16400	153.00	2803	229.00	3844	332.00	710
75.00	22776	154.00	2292	230.00	637	333.00	545
77.00	133760	155.00	2884	231.00	1755	334.00	4948
78.00	10121	156.00	5470	232.00	520	335.00	840
79.00	13125	157.00	1528	233.00	199	336.00	551
80.00	7687	158.00	1944	234.00	819	341.00	700
81.00	9726	159.00	1550	235.00	1926	346.00	1685
82.00	2881	160.00	2242	236.00	1281	347.00	276

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D\BNA\_CH732.rsl\spectra.d

Injection Date: 31-Oct-2014 11:38:30

Spectrum: Tune Spec: Scans 802-804( 6.36-6.37 ) Bgrd 795( 6.33)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	2154	161.00	4096	237.00	1662	351.00	254
84.00	548	162.00	1128	238.00	191	352.00	1507
85.00	2900	164.00	206	239.00	1311	353.00	1096
86.00	3886	165.00	2019	240.00	735	354.00	2445
87.00	1825	166.00	2504	241.00	1396	355.00	178
88.00	205	167.00	16728	242.00	2966	356.00	200
89.00	241	168.00	8399	243.00	1240	363.00	195
91.00	2326	169.00	1174	244.00	36808	365.00	9296
92.00	4945	170.00	830	245.00	4518	366.00	1567
93.00	19312	171.00	1129	246.00	8330	367.00	169
94.00	1630	172.00	1270	247.00	1370	371.00	558
95.00	495	173.00	2141	248.00	239	372.00	3650
96.00	915	174.00	2620	249.00	943	373.00	877
97.00	459	175.00	5481	250.00	556	383.00	776
98.00	14127	176.00	1188	251.00	771	390.00	504
99.00	10272	177.00	2963	253.00	676	391.00	579
100.00	364	178.00	923	255.00	170688	392.00	169
101.00	5223	179.00	12669	256.00	24856	401.00	265
102.00	571	180.00	7684	257.00	2541	402.00	1419
103.00	2563	181.00	3631	258.00	11820	403.00	2299
104.00	5095	182.00	522	259.00	1681	404.00	1074
105.00	3728	183.00	514	261.00	181	415.00	249
107.00	41520	184.00	1035	264.00	269	421.00	1582
108.00	8159	185.00	7406	265.00	4667	422.00	2231
110.00	74648	186.00	41056	266.00	637	423.00	11282
111.00	11597	187.00	12619	269.00	194	424.00	2291
112.00	1629	188.00	1169	271.00	278	425.00	522
113.00	590	189.00	2988	272.00	203	429.00	179
116.00	1211	191.00	1300	273.00	5480	432.00	273
117.00	45568	192.00	4056	274.00	17136	434.00	410
118.00	2599	193.00	3984	275.00	79232	436.00	407
119.00	382	194.00	1505	276.00	11310	438.00	410
120.00	380	195.00	442	277.00	8744	439.00	779
122.00	3859	196.00	8675	278.00	1204	440.00	2371

Report Date: 01-Nov-2014 12:48:20

Chrom Revision: 2.2 07-Oct-2014 12:16:06

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D\BNA\_CH732.rslt\spectra.d

Injection Date: 31-Oct-2014 11:38:30

Spectrum: Tune Spec: Scans 802-804( 6.36-6.37 ) Bgrd 795( 6.33)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	4835	198.00	291520	279.00	289	441.00	27472
124.00	2232	199.00	20744	283.00	516	442.00	194880
125.00	2310	200.00	2119	284.00	263	443.00	39440
127.00	132416	201.00	1208	285.00	1698	444.00	3375

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D  
Injection Date: 31-Oct-2014 11:38:30 Instrument ID: CH732  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL

194 4,4'-DDT, Detector: MS SCAN

## SW-846 Method

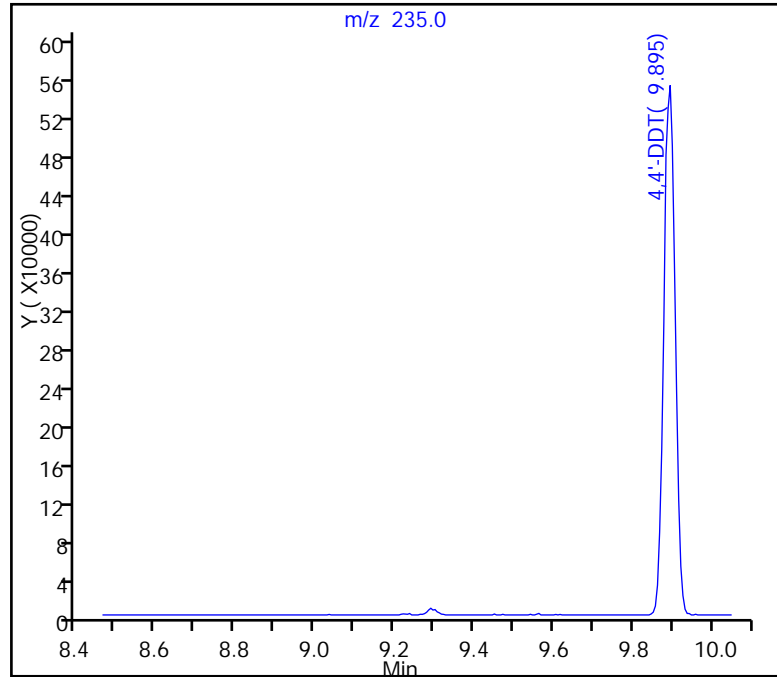
%Breakdown =  
(Area Breakdown Cpnds/  
Total Area Breakdown Cpnds) \* 100

194 4,4'-DDT, Area = 1108380

192 4,4'-DDE, Area = 585

193 4,4'-DDD, Area = 0

%Breakdown: 0.05%, Max Limit: 20.00%  
Passed



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D  
Injection Date: 31-Oct-2014 11:38:30 Instrument ID: CH732  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL

191 Benzidine\_T, Detector: MS SCAN

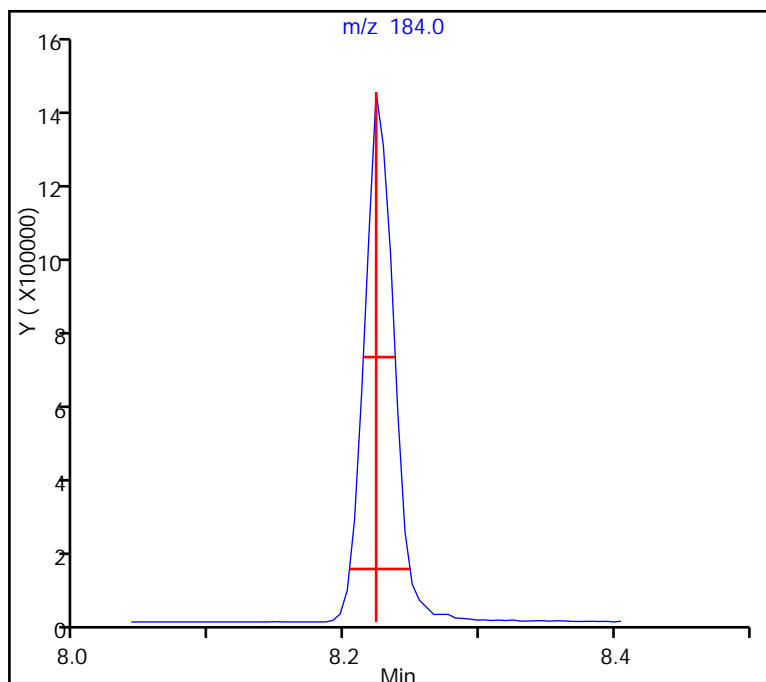
Peak Tailing Factor =  
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.025 (min.)

Front Width = 0.020 (min.)

Tailing Factor = 1.3, Max. Tailing < 2.00  
Passed

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## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH732\20141031-4118.b\D1031002.D  
Injection Date: 31-Oct-2014 11:38:30 Instrument ID: CH732  
Lims ID: DFTPP  
Client ID:  
Operator ID: 003200 ALS Bottle#: 1 Worklist Smp#: 2  
Injection Vol: 2.0 ul Dil. Factor: 1.0000  
Method: BNA\_CH732 Limit Group: BNA 8270D ICAL

189 Pentachlorophenol\_T, Detector: MS SCAN

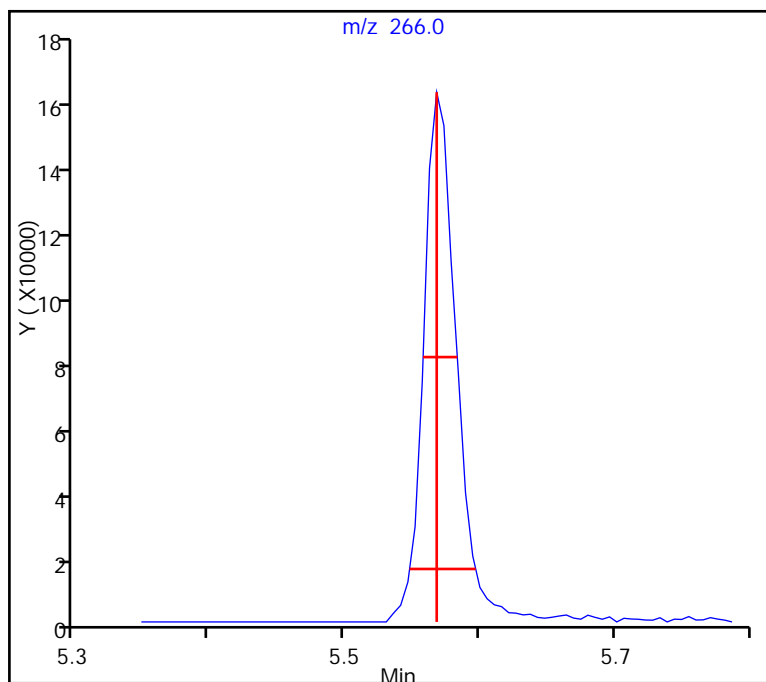
Peak Tailing Factor =  
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.029 (min.)

Front Width = 0.020 (min.)

Tailing Factor = 1.4, Max. Tailing < 2.00  
Passed

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FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 180-122598/1-A</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1028005.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: _____
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/28/2014 13:21</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>122953</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	ND		3.4	0.33
92-87-5	Benzidine	ND		340	70
56-55-3	Benzo[a]anthracene	ND		3.4	0.42
205-99-2	Benzo[b]fluoranthene	ND		3.4	0.52
207-08-9	Benzo[k]fluoranthene	ND		3.4	0.67
65-85-0	Benzoic acid	ND		85	6.9
191-24-2	Benzo[g,h,i]perylene	ND		3.4	0.33
50-32-8	Benzo[a]pyrene	ND		3.4	0.33
111-91-1	Bis(2-chloroethoxy)methane	ND		17	1.1
111-44-4	Bis(2-chloroethyl)ether	ND		3.4	0.45
108-60-1	2,2'-oxybis[1-chloropropane]	ND		3.4	0.36
83-32-9	Acenaphthene	ND		3.4	0.32
101-55-3	4-Bromophenyl phenyl ether	ND		17	1.5
208-96-8	Acenaphthylene	ND		3.4	0.38
7005-72-3	4-Chlorophenyl phenyl ether	ND		17	1.9
91-58-7	2-Chloronaphthalene	ND		3.4	0.35
85-68-7	Butyl benzyl phthalate	ND		17	2.3
218-01-9	Chrysene	ND		3.4	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		33	2.7
53-70-3	Dibenz(a,h)anthracene	ND		3.4	0.37
84-74-2	Di-n-butyl phthalate	ND		17	2.1
117-84-0	Di-n-octyl phthalate	ND		17	1.8
84-66-2	Diethyl phthalate	1.94	J	17	1.8
131-11-3	Dimethyl phthalate	ND		17	1.8
91-94-1	3,3'-Dichlorobenzidine	ND		17	1.8
121-14-2	2,4-Dinitrotoluene	ND		17	1.3
606-20-2	2,6-Dinitrotoluene	ND		17	1.7
95-57-8	2-Chlorophenol	ND		17	1.4
120-83-2	2,4-Dichlorophenol	ND		3.4	0.33
105-67-9	2,4-Dimethylphenol	ND		17	2.6
51-28-5	2,4-Dinitrophenol	ND		85	20
88-75-5	2-Nitrophenol	ND		17	1.8
88-06-2	2,4,6-Trichlorophenol	ND		17	2.5
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		17	2.1



FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-122598/1-A

Matrix: Sediment Lab File ID: V1028005.D

Analysis Method: 8270D LL Date Collected: \_\_\_\_\_

Extract. Method: 3541 Date Extracted: 10/24/2014 03:10

Sample wt/vol: 30.0(g) Date Analyzed: 10/28/2014 13:21

Con. Extract Vol.: 0.5(mL) Dilution Factor: 1

Injection Volume: 2(uL) Level: (low/med) Low

% Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N

Analysis Batch No.: 122953 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	ND		17	0.92
59-50-7	4-Chloro-3-methylphenol	ND		17	1.5
100-02-7	4-Nitrophenol	ND		85	6.1
534-52-1	4,6-Dinitro-2-methylphenol	ND		85	6.7
206-44-0	Fluoranthene	ND		3.4	0.36
86-73-7	Fluorene	ND		3.4	0.44
118-74-1	Hexachlorobenzene	ND		3.4	0.36
87-68-3	Hexachlorobutadiene	ND		3.4	0.37
77-47-4	Hexachlorocyclopentadiene	ND		17	1.8
67-72-1	Hexachloroethane	ND		17	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	ND		3.4	0.34
78-59-1	Isophorone	ND		17	1.3
91-20-3	Naphthalene	ND		3.4	0.29
98-95-3	Nitrobenzene	ND		33	1.4
621-64-7	N-Nitrosodi-n-propylamine	ND		3.4	0.39
62-75-9	N-Nitrosodimethylamine	ND		17	1.4
86-30-6	N-Nitrosodiphenylamine	ND		17	1.5
85-01-8	Phenanthrene	ND		3.4	0.53
129-00-0	Pyrene	ND		3.4	0.34
87-86-5	Pentachlorophenol	ND		17	1.5
108-95-2	Phenol	ND		3.4	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	70		21-116
321-60-8	2-Fluorobiphenyl	71		28-108
367-12-4	2-Fluorophenol (Surr)	82		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	83		27-110
4165-62-2	Phenol-d5 (Surr)	73		30-112
1718-51-0	Terphenyl-d14 (Surr)	75		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028005.D  
 Lims ID: MB 180-122598/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 28-Oct-2014 13:21:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004041-005  
 Misc. Info.: MB 180-122598/1-A  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:34 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 29-Oct-2014 02:12:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.207	6.211	-0.004	91	141665	8.00	8.00	
* 2 Naphthalene-d8	136	7.414	7.418	-0.004	99	521653	8.00	8.00	
* 3 Acenaphthene-d10	164	9.037	9.041	-0.004	92	285807	8.00	8.00	
* 4 Phenanthrene-d10	188	10.410	10.414	-0.004	97	493077	8.00	8.00	
* 5 Chrysene-d12	240	13.908	13.907	0.001	96	494616	8.00	8.00	
* 6 Perylene-d12	264	16.825	16.829	-0.004	99	393009	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.866	4.870	-0.004	92	658037	40.0	32.9	
\$ 8 Phenol-d5	99	5.860	5.863	-0.003	93	777900	40.0	29.3	
\$ 9 Nitrobenzene-d5	82	6.735	6.739	-0.004	93	795534	40.0	33.4	
\$ 10 2-Fluorobiphenyl	172	8.402	8.406	-0.004	99	1392979	40.0	28.3	
\$ 11 2,4,6-Tribromophenol	330	9.764	9.768	-0.004	81	158069	40.0	27.8	
\$ 12 Terphenyl-d14	244	12.173	12.171	0.002	98	1568303	40.0	29.9	
13 1,4-Dioxane	88		1.692					ND	
14 N-Nitrosodimethylamine	74		2.328					ND	
15 Pyridine	79		2.386					ND	
16 Dimethylformamide	73		3.313					ND	
17 2-Butoxyethanol	57		3.450					ND	
18 Dibromoacetone	120		3.590					ND	
19 2-Picoline	93		4.030					ND	
20 N-Nitrosomethylethylamine	88		4.233					ND	
21 Acrylamide	71		4.597					ND	
22 Methyl methanesulfonate	80		4.624					ND	
23 Phenylmercaptan	110		5.000					ND	
24 N-Nitrosodiethylamine	102		5.115					ND	
25 Ethyl methanesulfonate	79		5.517					ND	
26 Benzaldehyde	77		5.767					ND	
27 Phenol	94		5.874					ND	
28 Aniline	93		5.885					ND	
29 Bis(2-chloroethyl)ether	93		5.954					ND	
31 2-Chlorophenol	128		6.008					ND	
30 Pentachloroethane	167		6.025					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
32 n-Decane	43		6.066					ND	
33 1,3-Dichlorobenzene	146		6.157					ND	
34 1,4-Dichlorobenzene	146		6.227					ND	
35 1,2,3-Trimethylbenzene	105		6.277					ND	
36 Benzyl alcohol	108		6.344					ND	
37 1,2-Dichlorobenzene	146		6.376					ND	
38 2-Methylphenol	108		6.456					ND	
39 Indene	116		6.462					ND	
40 2,2'-oxybis[1-chloropropan	45		6.478					ND	
41 N-Nitrosopyrrolidine	100		6.563					ND	
44 N-Nitrosodi-n-propylamine	70		6.590					ND	
43 Acetophenone	105		6.595					ND	
45 4-Methylphenol	108		6.595					ND	
42 N-Nitrosomorpholine	116		6.632					ND	
46 2-Toluidine	106		6.664					ND	
47 Hexachloroethane	117		6.707					ND	
194 Benzotrichloride TIC	159		6.750					ND	
48 Nitrobenzene	77		6.755					ND	
49 N-Nitrosopiperidine	114		6.926					ND	
50 Isophorone	82		6.974					ND	
51 2-Nitrophenol	139		7.060					ND	
52 2,4-Dimethylphenol	107		7.092					ND	
56 Benzoic acid	122		7.140					ND	
53 4-Chloro-3-nitro-alpha,alp	179		7.142					ND	
55 Bis(2-chloroethoxy)methane	93		7.172					ND	
54 o,o',o''-Triethylphosphoro	198		7.182					ND	
57 2,4-Dichlorophenol	162		7.284					ND	
58 alpha,alpha-Dimethyl phene	58		7.353					ND	
59 1,2,4-Trichlorobenzene	180		7.364					ND	
61 Azobenzene	77		7.370					ND	
60 Naphthalene	128		7.439					ND	
62 4-Chloroaniline	127		7.476					ND	
63 2,6-Dichlorophenol	162		7.492					ND	
64 Hexachlorobutadiene	225		7.556					ND	
65 Hexachloropropene	213		7.627					ND	
67 Caprolactam	113		7.765					ND	
66 Quinoline	129		7.786					ND	
68 N-Nitrosodi-n-butylamine	84		7.818					ND	
69 p-Phenylene diamine	108		7.834					ND	
70 4-Chloro-3-methylphenol	107		7.909					ND	
71 Safrole, Total	162		8.026					ND	
72 2-Methylnaphthalene	142		8.075					ND	
73 Phthalic anhydride	104		8.114					ND	
75 1-Methylnaphthalene	142		8.171					ND	
74 Diphenamid	168		8.200					ND	
76 Hexachlorocyclopentadiene	237		8.229					ND	
77 1,2,4,5-Tetrachlorobenzene	216		8.235					ND	
78 2,4,6-Trichlorophenol	196		8.331					ND	
79 2,4,5-Trichlorophenol	196		8.363					ND	
80 1,1'-Biphenyl	154		8.497					ND	
81 2-Chloronaphthalene	162		8.529					ND	
82 2-Nitroaniline	65		8.603					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
83 1-Chloronaphthalene	162		8.648					ND	
86 Dimethyl phthalate	163		8.758					ND	
84 1,4-Dinitrobenzene	168		8.769					ND	
85 1,4-Naphthoquinone	158		8.771					ND	
87 1,3-Dinitrobenzene	168		8.790					ND	
88 2,6-Dinitrotoluene	165		8.817					ND	
89 Acenaphthylene	152		8.913					ND	
90 3-Nitroaniline	138		8.983					ND	
91 Acenaphthene	153		9.073					ND	
92 2,4-Dinitrophenol	184		9.073					ND	
93 4-Nitrophenol	109		9.116					ND	
94 2,4-Dinitrotoluene	165		9.191					ND	
95 Dibenzofuran	168		9.228					ND	
97 2,3,5,6-Tetrachlorophenol	232		9.298					ND	
96 Pentachlorobenzene	250		9.299					ND	
98 1-Naphthylamine	143		9.340					ND	
99 2,3,4,6-Tetrachlorophenol	232		9.340					ND	
100 2-Naphthylamine	143		9.367					ND	
101 Diethyl phthalate	149	9.395	9.399	-0.004	93	9808		0.2323	
102 Hexadecane	57		9.405					ND	
103 4-tert-Octylphenol	135		9.497					ND	
104 4-Chlorophenyl phenyl ethe	204		9.527					ND	
105 4-Nitroaniline	138		9.543					ND	
106 Fluorene	166		9.543					ND	
108 4,6-Dinitro-2-methylphenol	198		9.570					ND	
107 N-Nitro-o-toluidine	152		9.586					ND	
109 N-Nitrosodiphenylamine	169		9.629					ND	
111 1,2-Diphenylhydrazine	77		9.672					ND	
110 Diphenylamine	169		9.677					ND	
112 1,3,5-Trinitrobenzene	213		9.896					ND	
113 Phenacetin	108		9.939					ND	
114 Phorate	121		9.944					ND	
116 4-Bromophenyl phenyl ether	248		9.981					ND	
115 2,3,7,8-TCDD TIC	322		10.000					ND	
118 Hexachlorobenzene	284		10.061					ND	
119 Atrazine	200		10.099					ND	
117 Dimethoate	87		10.099					ND	
122 Pentachlorophenol	266		10.232					ND	
121 n-Octadecane	57		10.238					ND	
120 4-Aminobiphenyl	169		10.265					ND	
123 Pronamide	173		10.297					ND	
124 Pentachloronitrobenzene	237		10.302					ND	
125 Disulfoton	88		10.419					ND	
126 Phenanthrene	178		10.435					ND	
127 Dinoseb	211		10.475					ND	
128 Anthracene	178		10.489					ND	
129 Hexachlorophene TIC	198		10.600					ND	
130 Carbazole	167		10.628					ND	
131 Methyl parathion	109		10.793					ND	
132 Di-n-butyl phthalate	149		10.921					ND	
133 Ethyl Parathion	109		11.189					ND	
134 4-Nitroquinoline-1-oxide	190		11.263					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
135 Methapyrilene	58		11.317					ND	
136 Isodrin	193		11.661					ND	
137 Fluoranthene	202		11.717					ND	
138 Benzidine	184		11.845					ND	
139 Pyrene	202		12.016					ND	
140 1,2,3,4 -Tetrachlorobenzen	216		12.215					ND	
141 p-Dimethylamino azobenzene	225		12.428					ND	
142 Chlorobenzilate	139		12.542					ND	
143 Famphur	218		12.850					ND	
144 Butyl benzyl phthalate	149		12.866					ND	
145 3,3'-Dimethylbenzidine	212		12.936					ND	
146 Kepone	272		13.030					ND	
147 2-Acetylaminofluorene	181		13.363					ND	
148 Thionazin	97		13.789					ND	
149 3,3'-Dichlorobenzidine	252		13.816					ND	
151 Bis(2-ethylhexyl) phthalat	149		13.854					ND	
150 4,4'-Methylene bis(2-chlor	231		13.881					ND	
152 Benzo[a]anthracene	228		13.891					ND	
153 Chrysene	228		13.960					ND	
154 Sulfotepp	97		14.530					ND	
155 6-Methylchrysene	242		14.907					ND	
156 Di-n-octyl phthalate	149		15.157					ND	
157 7,12-Dimethylbenz(a)anthra	256		16.017					ND	
158 Benzo[b]fluoranthene	252		16.033					ND	
159 Benzo[k]fluoranthene	252		16.081					ND	
176 Benzo[e]pyrene	252		16.604					ND	
160 Benzo[a]pyrene	252		16.711					ND	
161 3-Methylcholanthrene	268		17.524					ND	
162 Dibenz[a,h]acridine	279		18.636					ND	
163 Indeno[1,2,3-cd]pyrene	276		19.040					ND	
164 Dibenz(a,h)anthracene	278		19.077					ND	
165 Benzo[g,h,i]perylene	276		19.633					ND	
181 Isosafrole	162		0.000					ND	
167 o-Phenylphenol	1		0.000					ND	
182 Aramite Peak 2	185		0.000					ND	
183 Octachlorocyclopentene	307		0.000					ND	
169 Diallate Peak 1	86		0.000					ND	
166 2,5-Dichlorophenol	162		0.000					ND	
185 4-Methyl-1-cyclohexanemeth	97		0.000					ND	
168 4-Methyl-1-cyclohexanemeth	97		0.000					ND	
175 Dibenz[a,j]acridine	279		0.000					ND	
196 Trifluralin	306		0.000					ND	
197 1-Phenyl-1-(4-methylphenyl	1		0.000					ND	
195 1-Phenyl-1-(2,4-dimethylph	1		0.000					ND	
170 2-Chlorobenzoic Acid	139		0.000					ND	
186 n,n'-Dimethylaniline	120		0.000					ND	
172 4-Chlorophenol	128		0.000					ND	
188 Carbaryl	144		0.000					ND	
190 Octachlorostyrene	308		0.000					ND	
189 Benzotrichloride	159		0.000					ND	
191 2,3-Dichlorophenol	162		0.000					ND	
192 4-Chlorobenzoic Acid	139		0.000					ND	

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028005.D

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
193 1,2,3,4-Tetrahydronaphthal	104		0.000					ND	
187 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
184 3-Chlorobenzoic Acid	139		0.000					ND	
180 Aramite Peak 1	185		0.000					ND	
171 Diallate Peak 2	86		0.000					ND	
173 3-Methylphenol	1		0.000					ND	
174 2-Bromonaphthalene	127		0.000					ND	
179 4-Nitrobiphenyl	199		0.000					ND	
177 1-Phenyl-1-(4-methylphenyl	1		0.000					ND	
178 1-Phenyl-1-(2,4-dimethylph	1		0.000					ND	
198 Pentachlorophenol_T	266		5.310					ND	
200 Benzidine_T	184		7.906					ND	
201 4,4'-DDE	246		8.225					ND	
202 4,4'-DDD	235		8.899					ND	
203 4,4'-DDT	235		9.417					ND	
S 204 Aramite, Total	185		1.000					0	
S 207 4-Methyl-1-cyclohexanemeth	97		0.000					0	
S 208 Methyl Phenols, Total	108		0.000					0	
S 205 Diallate	86		0.000					0	
S 206 Total Cresols	108		0.000					0	
T 209 Quinoline TIC	129		0.000					0	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028005.D

Injection Date: 28-Oct-2014 13:21:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: MB 180-122598/1-A

Worklist Smp#: 5

Client ID:

Injection Vol: 2.0 ul

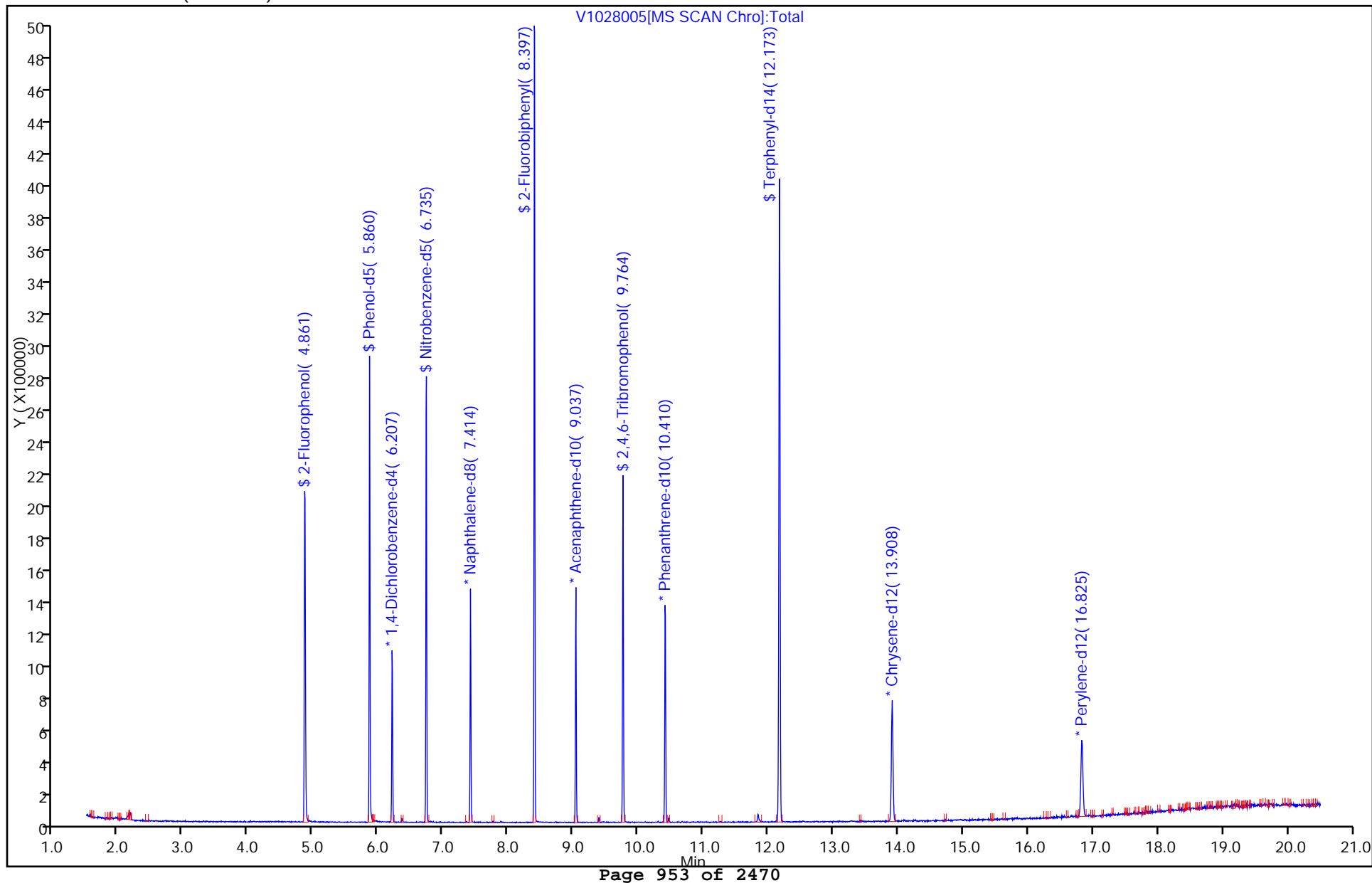
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028005.D

Injection Date: 28-Oct-2014 13:21:30

Instrument ID: CH731

Lims ID: MB 180-122598/1-A

Client ID:

Operator ID: 003200

ALS Bottle#: 4

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

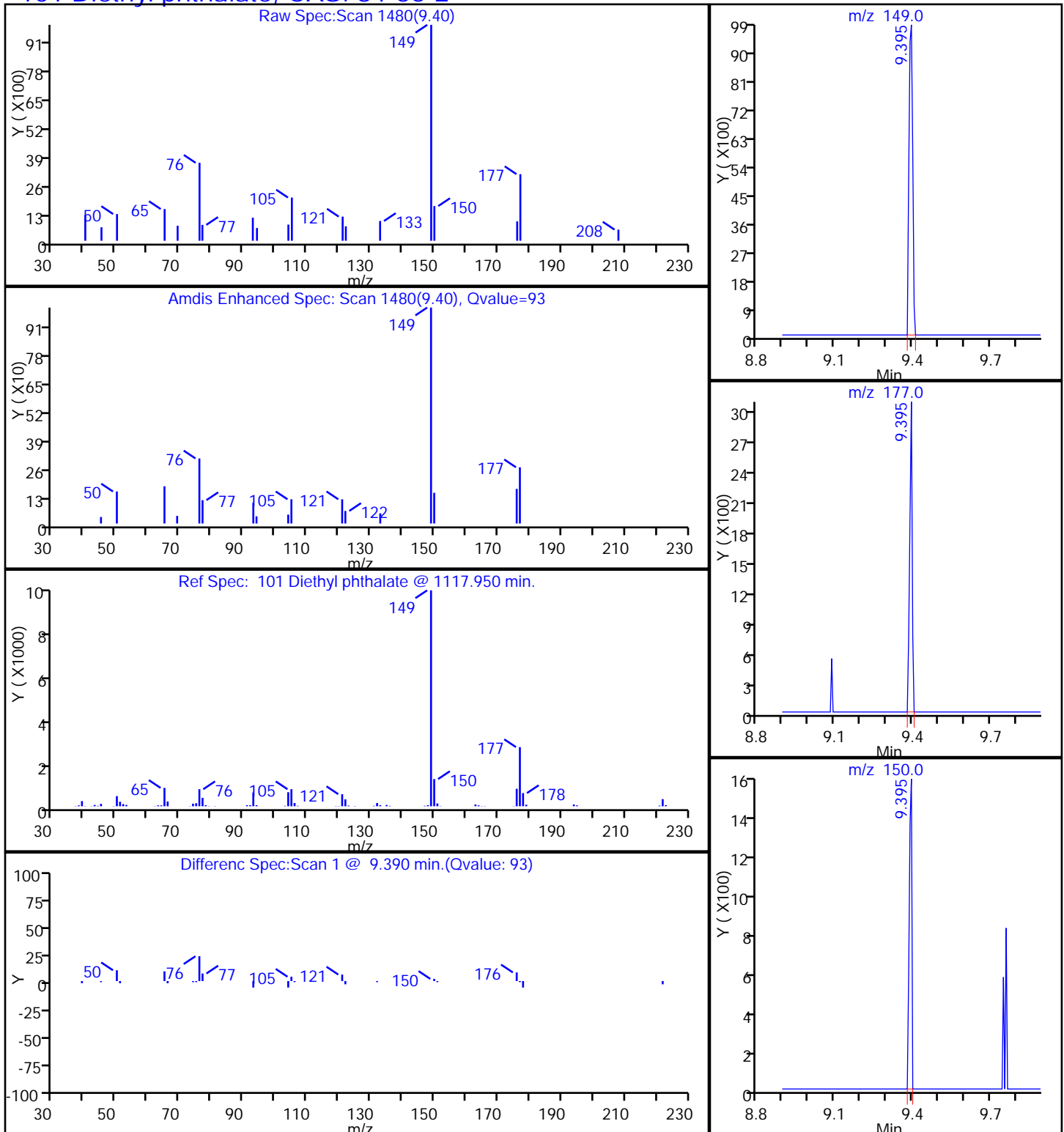
Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)

Detector: MS SCAN

## 101 Diethyl phthalate, CAS: 84-66-2





FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 180-122598/2-A</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1028007.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: _____
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/28/2014 14:18</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>122953</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-12-7	Anthracene	229		3.4	0.33
92-87-5	Benzidine	80.2	J	340	70
56-55-3	Benzo[a]anthracene	221		3.4	0.42
205-99-2	Benzo[b]fluoranthene	200		3.4	0.52
207-08-9	Benzo[k]fluoranthene	212		3.4	0.67
65-85-0	Benzoic acid	324		85	6.9
191-24-2	Benzo[g,h,i]perylene	197		3.4	0.33
50-32-8	Benzo[a]pyrene	212		3.4	0.33
111-91-1	Bis(2-chloroethoxy)methane	223		17	1.1
111-44-4	Bis(2-chloroethyl)ether	207		3.4	0.45
108-60-1	2,2'-oxybis[1-chloropropane]	194		3.4	0.36
83-32-9	Acenaphthene	239		3.4	0.32
101-55-3	4-Bromophenyl phenyl ether	253		17	1.5
208-96-8	Acenaphthylene	228		3.4	0.38
7005-72-3	4-Chlorophenyl phenyl ether	238		17	1.9
91-58-7	2-Chloronaphthalene	213		3.4	0.35
85-68-7	Butyl benzyl phthalate	250		17	2.3
218-01-9	Chrysene	213		3.4	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	253		33	2.7
53-70-3	Dibenz(a,h)anthracene	204		3.4	0.37
84-74-2	Di-n-butyl phthalate	266		17	2.1
117-84-0	Di-n-octyl phthalate	255		17	1.8
84-66-2	Diethyl phthalate	283		17	1.8
131-11-3	Dimethyl phthalate	252		17	1.8
91-94-1	3,3'-Dichlorobenzidine	220		17	1.8
121-14-2	2,4-Dinitrotoluene	252		17	1.3
606-20-2	2,6-Dinitrotoluene	238		17	1.7
95-57-8	2-Chlorophenol	219		17	1.4
120-83-2	2,4-Dichlorophenol	206		3.4	0.33
105-67-9	2,4-Dimethylphenol	233		17	2.6
51-28-5	2,4-Dinitrophenol	516		85	20
88-75-5	2-Nitrophenol	249		17	1.8
88-06-2	2,4,6-Trichlorophenol	271		17	2.5
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	271		17	2.1

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 180-122598/2-A</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1028007.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: _____
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/28/2014 14:18</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>122953</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	233		17	0.92
59-50-7	4-Chloro-3-methylphenol	236		17	1.5
100-02-7	4-Nitrophenol	792		85	6.1
534-52-1	4,6-Dinitro-2-methylphenol	528		85	6.7
206-44-0	Fluoranthene	245		3.4	0.36
86-73-7	Fluorene	247		3.4	0.44
118-74-1	Hexachlorobenzene	264		3.4	0.36
87-68-3	Hexachlorobutadiene	258		3.4	0.37
77-47-4	Hexachlorocyclopentadiene	262		17	1.8
67-72-1	Hexachloroethane	224		17	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	197		3.4	0.34
78-59-1	Isophorone	264		17	1.3
91-20-3	Naphthalene	217		3.4	0.29
98-95-3	Nitrobenzene	263		33	1.4
621-64-7	N-Nitrosodi-n-propylamine	255		3.4	0.39
62-75-9	N-Nitrosodimethylamine	303		17	1.4
86-30-6	N-Nitrosodiphenylamine	227		17	1.5
85-01-8	Phenanthrene	225		3.4	0.53
129-00-0	Pyrene	206		3.4	0.34
87-86-5	Pentachlorophenol	526		17	1.5
108-95-2	Phenol	220		3.4	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	83		21-116
321-60-8	2-Fluorobiphenyl	70		28-108
367-12-4	2-Fluorophenol (Surr)	77		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	82		27-110
4165-62-2	Phenol-d5 (Surr)	72		30-112
1718-51-0	Terphenyl-d14 (Surr)	72		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028007.D  
 Lims ID: LCS 180-122598/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 28-Oct-2014 14:18:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Injection Vol: 2.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004041-007  
 Misc. Info.: LCS 180-122598/2-A  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141028-4041.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 29-Oct-2014 02:22:34 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SiIMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK036

First Level Reviewer: piccolinov

Date: 29-Oct-2014 02:14:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.210	6.211	-0.001	92	147522	8.00	8.00	
* 2 Naphthalene-d8	136	7.417	7.418	-0.001	99	509855	8.00	8.00	
* 3 Acenaphthene-d10	164	9.035	9.041	-0.006	93	281993	8.00	8.00	
* 4 Phenanthrene-d10	188	10.413	10.414	-0.001	96	453880	8.00	8.00	
* 5 Chrysene-d12	240	13.906	13.907	-0.001	96	505891	8.00	8.00	
* 6 Perylene-d12	264	16.823	16.829	-0.006	99	395719	8.00	8.00	
\$ 7 2-Fluorophenol	112	4.869	4.870	-0.001	92	642280	40.0	30.8	
\$ 8 Phenol-d5	99	5.868	5.863	0.005	93	792705	40.0	28.7	
\$ 9 Nitrobenzene-d5	82	6.739	6.739	0.000	93	768637	40.0	33.0	
\$ 10 2-Fluorobiphenyl	172	8.400	8.406	-0.006	99	1363913	40.0	28.1	
\$ 11 2,4,6-Tribromophenol	330	9.767	9.768	-0.001	87	174176	40.0	33.3	
\$ 12 Terphenyl-d14	244	12.170	12.171	-0.001	98	1542516	40.0	28.7	
13 1,4-Dioxane	88	1.686	1.692	-0.006	90	266568	40.0	34.7	
14 N-Nitrosodimethylamine	74	2.322	2.328	-0.006	90	364237	40.0	36.4	
15 Pyridine	79	2.380	2.386	-0.006	96	611679	40.0	32.0	
26 Benzaldehyde	77	5.772	5.767	0.005	92	446951	40.0	27.0	
27 Phenol	94	5.879	5.874	0.005	95	842516	40.0	26.4	
28 Aniline	93	5.884	5.885	-0.001	98	912430	40.0	25.3	
29 Bis(2-chloroethyl)ether	93	5.953	5.954	-0.001	93	535267	40.0	24.9	
31 2-Chlorophenol	128	6.007	6.008	-0.001	95	647764	40.0	26.3	
32 n-Decane	43	6.066	6.066	0.000	84	543639	40.0	24.3	
33 1,3-Dichlorobenzene	146	6.156	6.157	-0.001	94	707766	40.0	24.7	
34 1,4-Dichlorobenzene	146	6.226	6.227	-0.001	89	732679	40.0	25.2	
36 Benzyl alcohol	108	6.343	6.344	-0.001	87	310267	40.0	21.1	
37 1,2-Dichlorobenzene	146	6.375	6.376	-0.001	93	674313	40.0	24.1	
38 2-Methylphenol	108	6.456	6.456	0.000	92	599089	40.0	27.6	
39 Indene	116	6.461	6.462	-0.001	90	1046579	40.0	26.5	
40 2,2'-oxybis[1-chloropropan	45	6.472	6.478	-0.006	83	661755	40.0	23.2	
44 N-Nitrosodi-n-propylamine	70	6.594	6.590	0.004	79	486728	40.0	30.6	
43 Acetophenone	105	6.594	6.595	-0.001	86	886948	40.0	27.9	
45 4-Methylphenol	108	6.594	6.595	-0.001	90	602323	40.0	26.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
47 Hexachloroethane	117	6.701	6.707	-0.006	92	327162	40.0	26.9	
48 Nitrobenzene	77	6.755	6.755	0.000	91	719568	40.0	31.6	
50 Isophorone	82	6.974	6.974	0.000	97	1180729	40.0	31.7	
51 2-Nitrophenol	139	7.059	7.060	-0.001	92	321573	40.0	29.9	
52 2,4-Dimethylphenol	107	7.086	7.092	-0.006	97	620259	40.0	28.0	
56 Benzoic acid	122	7.166	7.140	0.026	94	364503	40.0	38.9	
55 Bis(2-chloroethoxy)methane	93	7.171	7.172	-0.001	95	629618	40.0	26.8	
57 2,4-Dichlorophenol	162	7.283	7.284	-0.001	96	442304	40.0	24.7	
59 1,2,4-Trichlorobenzene	180	7.364	7.364	0.000	92	584600	40.0	27.9	
61 Azobenzene	77		7.370					ND	
60 Naphthalene	128	7.438	7.439	-0.001	98	1748734	40.0	26.0	
62 4-Chloroaniline	127	7.476	7.476	0.000	93	688248	40.0	25.7	
64 Hexachlorobutadiene	225	7.556	7.556	0.000	95	386189	40.0	31.0	
67 Caprolactam	113	7.775	7.765	0.010	76	149872	40.0	30.8	
70 4-Chloro-3-methylphenol	107	7.914	7.909	0.005	92	508370	40.0	28.3	
72 2-Methylnaphthalene	142	8.074	8.075	-0.001	91	1168247	40.0	25.8	
75 1-Methylnaphthalene	142	8.165	8.171	-0.006	92	1078167	40.0	25.5	
76 Hexachlorocyclopentadiene	237	8.223	8.229	-0.006	96	431971	40.0	31.4	
77 1,2,4,5-Tetrachlorobenzene	216	8.229	8.235	-0.006	97	587274	40.0	29.0	
78 2,4,6-Trichlorophenol	196	8.325	8.331	-0.006	94	384877	40.0	32.5	
79 2,4,5-Trichlorophenol	196	8.362	8.363	-0.001	91	393765	40.0	30.6	
80 1,1'-Biphenyl	154	8.496	8.497	-0.001	96	1373038	40.0	26.6	
81 2-Chloronaphthalene	162	8.523	8.529	-0.007	98	1116908	40.0	25.5	
82 2-Nitroaniline	65	8.603	8.603	0.000	74	418256	40.0	37.8	
86 Dimethyl phthalate	163	8.752	8.758	-0.006	96	1261322	40.0	30.2	
87 1,3-Dinitrobenzene	168	8.790	8.790	0.000	79	187946	40.0	29.0	
88 2,6-Dinitrotoluene	165	8.816	8.817	-0.001	80	265809	40.0	28.6	
89 Acenaphthylene	152	8.907	8.913	-0.006	98	1669757	40.0	27.3	
90 3-Nitroaniline	138	8.977	8.983	-0.007	85	274803	40.0	27.2	
91 Acenaphthene	153	9.067	9.073	-0.006	93	1136711	40.0	28.7	
92 2,4-Dinitrophenol	184	9.073	9.073	0.000	74	362724	80.0	61.9	
93 4-Nitrophenol	109	9.115	9.116	-0.001	88	610142	80.0	95.1	
94 2,4-Dinitrotoluene	165	9.190	9.191	-0.001	81	373757	40.0	30.2	
95 Dibenzofuran	168	9.222	9.228	-0.006	93	1564536	40.0	26.6	
99 2,3,4,6-Tetrachlorophenol	232	9.334	9.340	-0.006	79	323076	40.0	28.7	
101 Diethyl phthalate	149	9.398	9.399	-0.001	96	1415170	40.0	34.0	
102 Hexadecane	57	9.398	9.405	-0.006	95	720944	40.0	28.4	
104 4-Chlorophenyl phenyl ethe	204	9.521	9.527	-0.006	97	639863	40.0	28.6	
105 4-Nitroaniline	138	9.543	9.543	0.000	61	308537	40.0	30.4	
106 Fluorene	166	9.543	9.543	0.000	95	1344845	40.0	29.6	
108 4,6-Dinitro-2-methylphenol	198	9.569	9.570	-0.001	74	483721	80.0	63.4	
109 N-Nitrosodiphenylamine	169	9.628	9.629	-0.001	72	910937	40.0	27.2	
111 1,2-Diphenylhydrazine	77	9.671	9.672	-0.001	97	1517091	40.0	32.5	
116 4-Bromophenyl phenyl ether	248	9.975	9.981	-0.006	74	385480	40.0	30.4	
118 Hexachlorobenzene	284	10.061	10.061	0.000	92	425655	40.0	31.7	
119 Atrazine	200	10.098	10.099	-0.001	91	343015	40.0	29.5	
122 Pentachlorophenol	266	10.232	10.232	0.000	86	525049	80.0	63.1	
121 n-Octadecane	57	10.237	10.238	-0.001	92	740675	40.0	25.5	
126 Phenanthrene	178	10.435	10.435	0.000	98	1780681	40.0	27.0	
128 Anthracene	178	10.483	10.489	-0.006	97	1828862	40.0	27.5	
130 Carbazole	167	10.627	10.628	-0.001	97	1614388	40.0	27.4	
132 Di-n-butyl phthalate	149	10.915	10.921	-0.006	99	2095308	40.0	31.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
137 Fluoranthene	202	11.716	11.717	-0.001	97	1992667	40.0	29.4	
138 Benzidine	184	11.839	11.845	-0.006	98	320946	40.0	9.63	
139 Pyrene	202	12.010	12.016	-0.006	99	2000313	40.0	24.7	
144 Butyl benzyl phthalate	149	12.859	12.866	-0.007	95	893361	40.0	30.0	
149 3,3'-Dichlorobenzidine	252	13.816	13.816	0.000	75	586804	40.0	26.4	
151 Bis(2-ethylhexyl) phthalat	149	13.853	13.854	-0.001	96	1213765	40.0	30.4	
152 Benzo[a]anthracene	228	13.885	13.891	-0.006	96	1814717	40.0	26.5	
153 Chrysene	228	13.954	13.960	-0.006	95	1690400	40.0	25.5	
156 Di-n-octyl phthalate	149	15.156	15.157	-0.001	99	1974974	40.0	30.6	
158 Benzo[b]fluoranthene	252	16.021	16.033	-0.012	95	1669923	40.0	24.0	
159 Benzo[k]fluoranthene	252	16.080	16.081	-0.001	97	1621788	40.0	25.4	
160 Benzo[a]pyrene	252	16.710	16.711	-0.001	74	1516142	40.0	25.4	
163 Indeno[1,2,3-cd]pyrene	276	19.039	19.040	-0.001	97	1465857	40.0	23.7	
164 Dibenz(a,h)anthracene	278	19.076	19.077	-0.001	85	1304064	40.0	24.5	
165 Benzo[g,h,i]perylene	276	19.627	19.633	-0.006	96	1217049	40.0	23.6	
S 208 Methyl Phenols, Total	108				0		80.0	54.0	
S 206 Total Cresols	108				0		80.0	54.0	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

Report Date: 29-Oct-2014 02:22:38

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141028-4041.b\V1028007.D

Injection Date: 28-Oct-2014 14:18:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: LCS 180-122598/2-A

Worklist Smp#: 7

Client ID:

Injection Vol: 2.0 ul

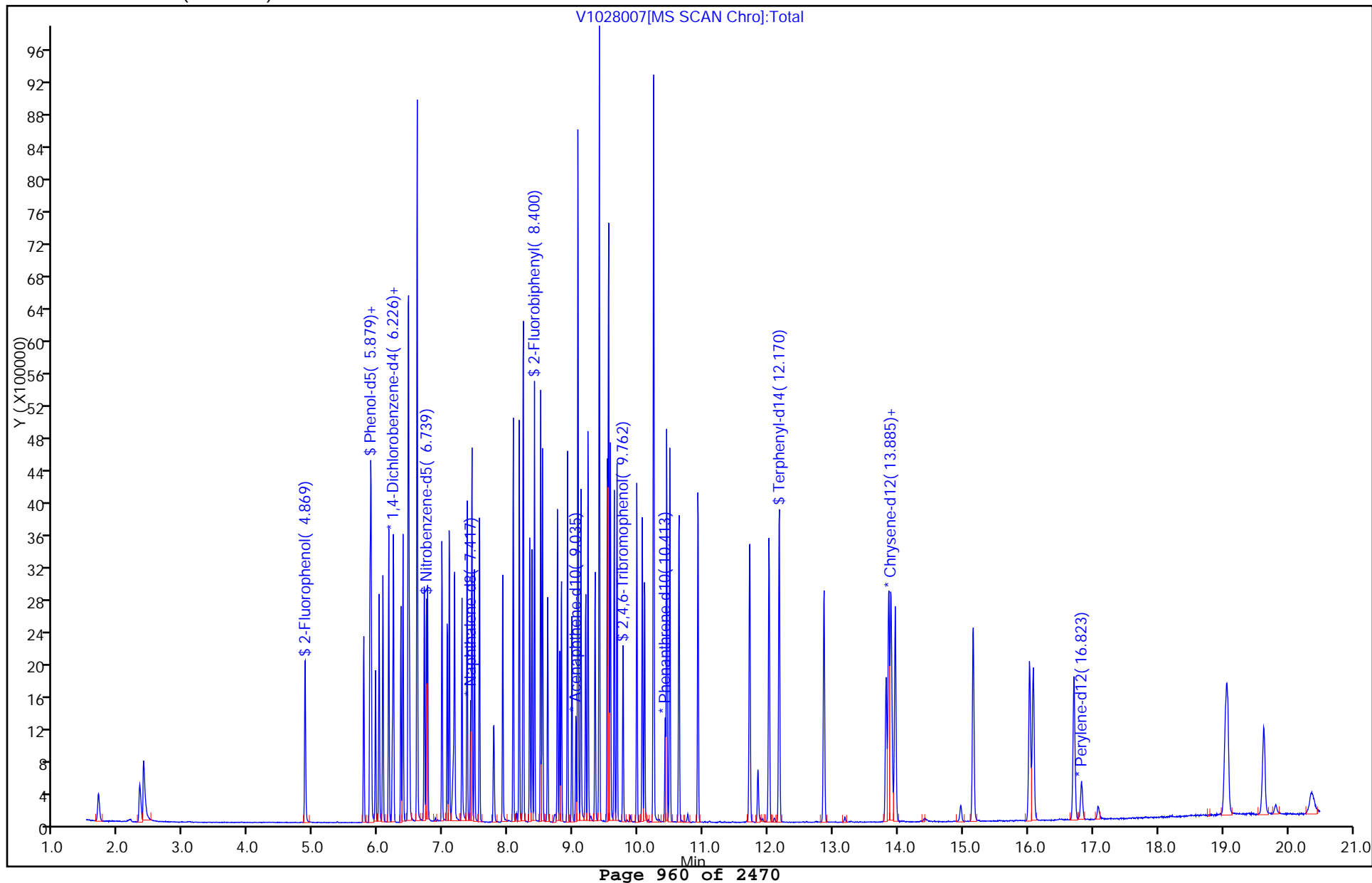
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01 MS</u>	Lab Sample ID: <u>180-37750-4 MS</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030026.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.1(g)</u>	Date Analyzed: <u>10/30/2014 20:08</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	320		19	1.8
208-96-8	Acenaphthylene	322		19	2.2
120-12-7	Anthracene	334		19	1.8
92-87-5	Benzidine	ND		1900	390
56-55-3	Benzo[a]anthracene	372		19	2.4
205-99-2	Benzo[b]fluoranthene	294		19	3.0
207-08-9	Benzo[k]fluoranthene	305		19	3.8
65-85-0	Benzoic acid	224	J	480	39
191-24-2	Benzo[g,h,i]perylene	448		19	1.9
50-32-8	Benzo[a]pyrene	331		19	1.9
111-91-1	Bis(2-chloroethoxy)methane	333		93	6.2
111-44-4	Bis(2-chloroethyl)ether	293		19	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	464		190	15
108-60-1	2,2'-oxybis[1-chloropropane]	283		19	2.0
101-55-3	4-Bromophenyl phenyl ether	455		93	8.2
7005-72-3	4-Chlorophenyl phenyl ether	334		93	10
91-58-7	2-Chloronaphthalene	303		19	2.0
85-68-7	Butyl benzyl phthalate	468		93	13
218-01-9	Chrysene	343		19	2.2
53-70-3	Dibenz(a,h)anthracene	399		19	2.1
84-74-2	Di-n-butyl phthalate	369		93	12
117-84-0	Di-n-octyl phthalate	423		93	9.9
84-66-2	Diethyl phthalate	409		93	10
131-11-3	Dimethyl phthalate	379		93	10
91-94-1	3,3'-Dichlorobenzidine	333		93	9.9
121-14-2	2,4-Dinitrotoluene	383		93	7.6
606-20-2	2,6-Dinitrotoluene	380		93	9.7
95-57-8	2-Chlorophenol	298		93	7.7
120-83-2	2,4-Dichlorophenol	316		19	1.9
105-67-9	2,4-Dimethylphenol	352		93	15
51-28-5	2,4-Dinitrophenol	222	J	480	110
88-75-5	2-Nitrophenol	331		93	10
88-06-2	2,4,6-Trichlorophenol	355		93	14
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	611		93	12

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01 MS</u>	Lab Sample ID: <u>180-37750-4 MS</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030026.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.1(g)</u>	Date Analyzed: <u>10/30/2014 20:08</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	306		93	5.2
59-50-7	4-Chloro-3-methylphenol	349		93	8.7
100-02-7	4-Nitrophenol	1100		480	34
534-52-1	4,6-Dinitro-2-methylphenol	744		480	38
206-44-0	Fluoranthene	307		19	2.0
86-73-7	Fluorene	336		19	2.5
118-74-1	Hexachlorobenzene	419		19	2.0
87-68-3	Hexachlorobutadiene	346		19	2.1
77-47-4	Hexachlorocyclopentadiene	17.4	J	93	10
67-72-1	Hexachloroethane	245		93	6.8
193-39-5	Indeno[1,2,3-cd]pyrene	424		19	1.9
78-59-1	Isophorone	399		93	7.1
91-20-3	Naphthalene	298		19	1.6
98-95-3	Nitrobenzene	393		190	7.8
621-64-7	N-Nitrosodi-n-propylamine	380		19	2.2
62-75-9	N-Nitrosodimethylamine	421		93	8.1
86-30-6	N-Nitrosodiphenylamine	465		93	8.7
85-01-8	Phenanthrene	340		19	3.0
129-00-0	Pyrene	349		19	1.9
87-86-5	Pentachlorophenol	119		93	8.4
108-95-2	Phenol	313		19	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	98		21-116
321-60-8	2-Fluorobiphenyl	75		28-108
367-12-4	2-Fluorophenol (Surr)	79		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	92		27-110
4165-62-2	Phenol-d5 (Surr)	73		30-112
1718-51-0	Terphenyl-d14 (Surr)	83		21-130



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030026.D  
 Lims ID: 180-37750-A-4-A MS  
 Client ID: SD-B01  
 Sample Type: MS  
 Inject. Date: 30-Oct-2014 20:08:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Injection Vol: 2.0 ul Dil. Factor: 4.0000  
 Sample Info: 180-0004095-026  
 Misc. Info.: 180-37750-A-4-A MS  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:30 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 31-Oct-2014 02:41:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.215	6.216	-0.001	91	192919	2.00	8.00	
* 2 Naphthalene-d8	136	7.417	7.418	-0.001	99	684209	2.00	8.00	
* 3 Acenaphthene-d10	164	9.041	9.036	0.005	91	359078	2.00	8.00	
* 4 Phenanthrene-d10	188	10.408	10.398	0.010	96	401162	2.00	8.00	
* 5 Chrysene-d12	240	13.880	13.859	0.021	96	333063	2.00	8.00	
* 6 Perylene-d12	264	16.785	16.759	0.026	99	301442	2.00	8.00	
\$ 7 2-Fluorophenol	112	4.875	4.881	-0.006	92	216568	10.0	7.94	
\$ 8 Phenol-d5	99	5.868	5.869	-0.001	90	264775	10.0	7.33	
\$ 9 Nitrobenzene-d5	82	6.739	6.739	0.000	94	287539	10.0	9.19	
\$ 10 2-Fluorobiphenyl	172	8.400	8.400	0.000	98	466718	10.0	7.55	
\$ 11 2,4,6-Tribromophenol	330	9.762	9.752	0.010	76	45146	10.0	9.76	
\$ 12 Terphenyl-d14	244	12.154	12.134	0.020	97	293291	10.0	8.30	
14 N-Nitrosodimethylamine	74	2.370	2.360	0.010	86	117336	10.0	8.96	
27 Phenol	94	5.884	5.885	-0.001	89	278655	10.0	6.66	
29 Bis(2-chloroethyl)ether	93	5.954	5.960	-0.006	90	175595	10.0	6.24	
31 2-Chlorophenol	128	6.012	6.013	-0.001	94	204718	10.0	6.34	
40 2,2'-oxybis[1-chloropropan	45	6.477	6.483	-0.006	81	224198	10.0	6.02	
44 N-Nitrosodi-n-propylamine	70	6.594	6.595	-0.001	82	168251	10.0	8.09	
47 Hexachloroethane	117	6.707	6.707	0.000	89	82892	10.0	5.22	
48 Nitrobenzene	77	6.755	6.761	-0.006	93	255268	10.0	8.35	
50 Isophorone	82	6.979	6.980	-0.001	96	423848	10.0	8.48	
51 2-Nitrophenol	139	7.059	7.060	-0.001	83	101613	10.0	7.05	
52 2,4-Dimethylphenol	107	7.091	7.092	-0.001	96	222432	10.0	7.49	
56 Benzoic acid	122	7.134	7.140	-0.006	83	11803	10.0	4.76	
55 Bis(2-chloroethoxy)methane	93	7.171	7.172	-0.001	95	222952	10.0	7.07	
57 2,4-Dichlorophenol	162	7.283	7.284	-0.001	94	161394	10.0	6.71	
59 1,2,4-Trichlorobenzene	180	7.364	7.364	0.000	90	182483	10.0	6.50	
60 Naphthalene	128	7.438	7.439	-0.001	98	570438	10.0	6.33	
64 Hexachlorobutadiene	225	7.556	7.556	0.000	93	123014	10.0	7.36	
70 4-Chloro-3-methylphenol	107	7.914	7.909	0.005	91	178989	10.0	7.43	
76 Hexachlorocyclopentadiene	237	8.223	8.224	-0.001	34	6476	10.0	0.3698	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196	8.330	8.326	0.004	90	113860	10.0	7.56	
81 2-Chloronaphthalene	162	8.528	8.523	0.005	98	359130	10.0	6.45	
86 Dimethyl phthalate	163	8.758	8.748	0.010	93	428276	10.0	8.05	
88 2,6-Dinitrotoluene	165	8.816	8.812	0.004	78	95901	10.0	8.09	
89 Acenaphthylene	152	8.912	8.908	0.004	98	532893	10.0	6.85	
91 Acenaphthene	153	9.067	9.063	0.004	94	342770	10.0	6.80	
92 2,4-Dinitrophenol	184	9.078	9.068	0.010	56	3459	20.0	4.72	
93 4-Nitrophenol	109	9.115	9.105	0.010	85	191439	20.0	23.4	
94 2,4-Dinitrotoluene	165	9.190	9.180	0.010	79	128257	10.0	8.15	
101 Diethyl phthalate	149	9.393	9.388	0.005	94	460767	10.0	8.69	
104 4-Chlorophenyl phenyl ethe	204	9.521	9.517	0.004	94	202499	10.0	7.10	
106 Fluorene	166	9.543	9.533	0.010	95	412557	10.0	7.14	
108 4,6-Dinitro-2-methylphenol	198	9.569	9.559	0.010	65	94024	20.0	15.8	
109 N-Nitrosodiphenylamine	169	9.628	9.618	0.010	66	293158	10.0	9.90	
111 1,2-Diphenylhydrazine	77	9.671	9.661	0.010	97	535763	10.0	13.0	
116 4-Bromophenyl phenyl ether	248	9.975	9.965	0.010	80	108413	10.0	9.68	
118 Hexachlorobenzene	284	10.061	10.051	0.010	86	105745	10.0	8.90	
122 Pentachlorophenol	266	10.232	10.216	0.016	56	12070	20.0	2.53	
126 Phenanthrene	178	10.429	10.419	0.010	98	422243	10.0	7.24	
128 Anthracene	178	10.483	10.467	0.016	97	417870	10.0	7.11	
132 Di-n-butyl phthalate	149	10.910	10.895	0.015	98	455366	10.0	7.85	
137 Fluoranthene	202	11.706	11.685	0.021	96	391540	10.0	6.54	
138 Benzidine	184		11.813					ND	
139 Pyrene	202	12.000	11.984	0.016	97	395157	10.0	7.41	
144 Butyl benzyl phthalate	149	12.838	12.817	0.021	90	195391	10.0	9.96	
149 3,3'-Dichlorobenzidine	252	13.789	13.768	0.021	79	103364	10.0	7.07	
151 Bis(2-ethylhexyl) phthalat	149	13.821	13.800	0.021	94	259108	10.0	9.86	
152 Benzo[a]anthracene	228	13.858	13.838	0.020	96	356798	10.0	7.90	
153 Chrysene	228	13.928	13.907	0.021	96	318352	10.0	7.30	
156 Di-n-octyl phthalate	149	15.119	15.087	0.032	98	442885	10.0	9.00	
158 Benzo[b]fluoranthene	252	15.995	15.963	0.032	95	331318	10.0	6.26	
159 Benzo[k]fluoranthene	252	16.043	16.017	0.026	97	315574	10.0	6.49	
160 Benzo[a]pyrene	252	16.673	16.642	0.031	74	320686	10.0	7.05	
163 Indeno[1,2,3-cd]pyrene	276	18.975	18.949	0.026	98	425752	10.0	9.02	
164 Dibenz(a,h)anthracene	278	19.007	18.981	0.026	88	343937	10.0	8.48	
165 Benzo[g,h,i]perylene	276	19.563	19.537	0.027	96	374300	10.0	9.52	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030026.D

Injection Date: 30-Oct-2014 20:08:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-A-4-A MS

Worklist Smp#: 26

Client ID: SD-B01

Injection Vol: 2.0 ul

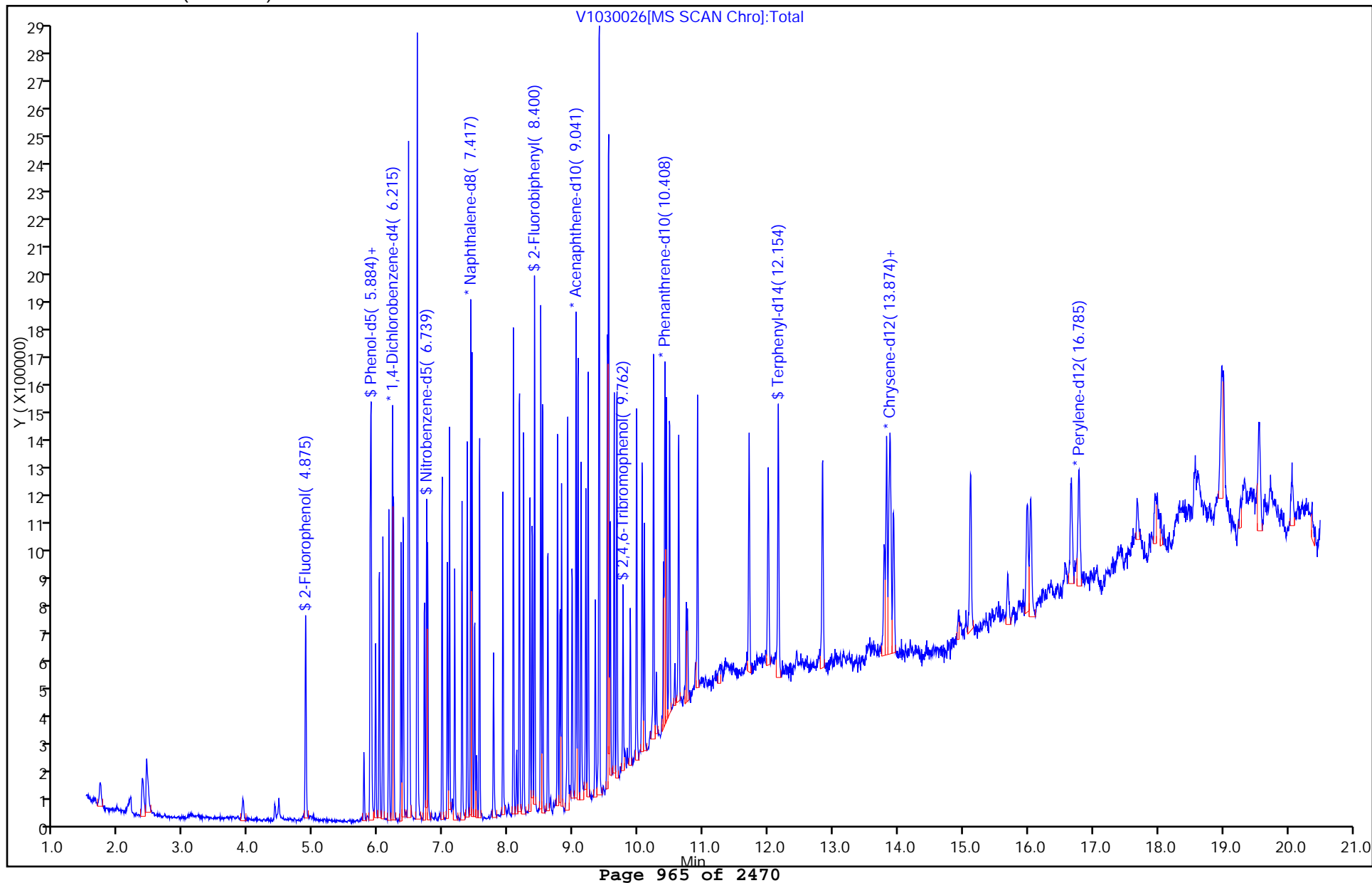
Dil. Factor: 4.0000

ALS Bottle#: 25

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS (0.32 mm)



FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01 MSD</u>	Lab Sample ID: <u>180-37750-4 MSD</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030027.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/30/2014 20:37</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	342		19	1.8
208-96-8	Acenaphthylene	348		19	2.2
120-12-7	Anthracene	352		19	1.8
92-87-5	Benzidine	ND		1900	400
56-55-3	Benzo[a]anthracene	355		19	2.4
205-99-2	Benzo[b]fluoranthene	282		19	3.0
207-08-9	Benzo[k]fluoranthene	299		19	3.8
65-85-0	Benzoic acid	236	J	480	39
191-24-2	Benzo[g,h,i]perylene	419		19	1.9
50-32-8	Benzo[a]pyrene	317		19	1.9
111-91-1	Bis(2-chloroethoxy)methane	337		93	6.2
111-44-4	Bis(2-chloroethyl)ether	323		19	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	455		190	15
108-60-1	2,2'-oxybis[1-chloropropane]	303		19	2.0
101-55-3	4-Bromophenyl phenyl ether	487		93	8.2
7005-72-3	4-Chlorophenyl phenyl ether	351		93	10
91-58-7	2-Chloronaphthalene	323		19	2.0
85-68-7	Butyl benzyl phthalate	440		93	13
218-01-9	Chrysene	330		19	2.2
53-70-3	Dibenz(a,h)anthracene	394		19	2.1
84-74-2	Di-n-butyl phthalate	395		93	12
117-84-0	Di-n-octyl phthalate	396		93	10
84-66-2	Diethyl phthalate	446		93	10
131-11-3	Dimethyl phthalate	412		93	10
91-94-1	3,3'-Dichlorobenzidine	306		93	10
121-14-2	2,4-Dinitrotoluene	406		93	7.6
606-20-2	2,6-Dinitrotoluene	399		93	9.7
95-57-8	2-Chlorophenol	321		93	7.7
120-83-2	2,4-Dichlorophenol	326		19	1.9
105-67-9	2,4-Dimethylphenol	397		93	15
51-28-5	2,4-Dinitrophenol	247	J	480	110
88-75-5	2-Nitrophenol	356		93	10
88-06-2	2,4,6-Trichlorophenol	379		93	14
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	654		93	12

FORM I  
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG No.: _____	
Client Sample ID: <u>SD-B01 MSD</u>	Lab Sample ID: <u>180-37750-4 MSD</u>
Matrix: <u>Sediment</u>	Lab File ID: <u>V1030027.D</u>
Analysis Method: <u>8270D LL</u>	Date Collected: <u>10/13/2014 12:50</u>
Extract. Method: <u>3541</u>	Date Extracted: <u>10/24/2014 03:10</u>
Sample wt/vol: <u>30.0(g)</u>	Date Analyzed: <u>10/30/2014 20:37</u>
Con. Extract Vol.: <u>0.5(mL)</u>	Dilution Factor: <u>4</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>29.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>123272</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	341		93	5.2
59-50-7	4-Chloro-3-methylphenol	389		93	8.7
100-02-7	4-Nitrophenol	1110		480	34
534-52-1	4,6-Dinitro-2-methylphenol	830		480	38
206-44-0	Fluoranthene	319		19	2.0
86-73-7	Fluorene	356		19	2.5
118-74-1	Hexachlorobenzene	467		19	2.0
87-68-3	Hexachlorobutadiene	382		19	2.1
77-47-4	Hexachlorocyclopentadiene	18.0	J	93	10
67-72-1	Hexachloroethane	247		93	6.8
193-39-5	Indeno[1,2,3-cd]pyrene	394		19	1.9
78-59-1	Isophorone	430		93	7.1
91-20-3	Naphthalene	321		19	1.6
98-95-3	Nitrobenzene	413		190	7.9
621-64-7	N-Nitrosodi-n-propylamine	389		19	2.2
62-75-9	N-Nitrosodimethylamine	442		93	8.1
86-30-6	N-Nitrosodiphenylamine	516		93	8.7
85-01-8	Phenanthrene	365		19	3.0
129-00-0	Pyrene	346		19	1.9
87-86-5	Pentachlorophenol	150		93	8.4
108-95-2	Phenol	335		19	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	101		21-116
321-60-8	2-Fluorobiphenyl	77		28-108
367-12-4	2-Fluorophenol (Surr)	76		28-107
4165-60-0	Nitrobenzene-d5 (Surr)	92		27-110
4165-62-2	Phenol-d5 (Surr)	71		30-112
1718-51-0	Terphenyl-d14 (Surr)	74		21-130

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030027.D  
 Lims ID: 180-37750-A-4-B MSD  
 Client ID: SD-B01  
 Sample Type: MSD  
 Inject. Date: 30-Oct-2014 20:37:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Injection Vol: 2.0 ul Dil. Factor: 4.0000  
 Sample Info: 180-0004095-027  
 Misc. Info.: 180-37750-A-4-B MSD  
 Operator ID: 003200 Instrument ID: CH731  
 Method: \\PITCHROM\ChromData\CH731\20141030-4095.b\BNA\_CH731.m  
 Limit Group: BNA 8270D ICAL  
 Last Update: 31-Oct-2014 02:42:30 Calib Date: 28-Aug-2014 11:10:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CH731\20140828-2983.b\V0828022.D  
 Column 1 : Rxi-5SilMS ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: piccolinov

Date: 31-Oct-2014 02:41:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.215	6.216	-0.001	91	232998	2.00	8.00	
* 2 Naphthalene-d8	136	7.416	7.418	-0.002	99	809391	2.00	8.00	
* 3 Acenaphthene-d10	164	9.040	9.036	0.004	90	419490	2.00	8.00	
* 4 Phenanthrene-d10	188	10.407	10.398	0.009	96	467896	2.00	8.00	
* 5 Chrysene-d12	240	13.879	13.859	0.020	96	418132	2.00	8.00	
* 6 Perylene-d12	264	16.779	16.759	0.020	99	370474	2.00	8.00	
\$ 7 2-Fluorophenol	112	4.879	4.881	-0.002	91	251112	10.0	7.63	
\$ 8 Phenol-d5	99	5.868	5.869	-0.001	91	309301	10.0	7.09	
\$ 9 Nitrobenzene-d5	82	6.738	6.739	-0.001	94	342092	10.0	9.24	
\$ 10 2-Fluorobiphenyl	172	8.399	8.400	-0.001	99	555566	10.0	7.69	
\$ 11 2,4,6-Tribromophenol	330	9.761	9.752	0.009	77	54224	10.0	10.1	
\$ 12 Terphenyl-d14	244	12.154	12.134	0.020	97	326450	10.0	7.36	
14 N-Nitrosodimethylamine	74	2.380	2.360	0.020	85	148149	10.0	9.37	
27 Phenol	94	5.884	5.885	-0.001	92	358106	10.0	7.09	
29 Bis(2-chloroethyl)ether	93	5.953	5.960	-0.007	94	233145	10.0	6.86	
31 2-Chlorophenol	128	6.012	6.013	-0.001	94	264912	10.0	6.80	
40 2,2'-oxybis[1-chloropropan	45	6.471	6.483	-0.012	82	288462	10.0	6.42	
44 N-Nitrosodi-n-propylamine	70	6.589	6.595	-0.006	90	206860	10.0	8.24	
47 Hexachloroethane	117	6.701	6.707	-0.006	89	100595	10.0	5.24	
48 Nitrobenzene	77	6.754	6.761	-0.007	92	316696	10.0	8.76	
50 Isophorone	82	6.973	6.980	-0.007	97	539473	10.0	9.12	
51 2-Nitrophenol	139	7.059	7.060	-0.001	83	128806	10.0	7.55	
52 2,4-Dimethylphenol	107	7.091	7.092	-0.001	96	295933	10.0	8.42	
56 Benzoic acid	122	7.133	7.140	-0.007	94	17572	10.0	5.00	
55 Bis(2-chloroethoxy)methane	93	7.171	7.172	-0.001	94	266656	10.0	7.15	
57 2,4-Dichlorophenol	162	7.283	7.284	-0.001	93	196741	10.0	6.92	
59 1,2,4-Trichlorobenzene	180	7.363	7.364	-0.001	91	240167	10.0	7.23	
60 Naphthalene	128	7.438	7.439	-0.001	98	725484	10.0	6.80	
64 Hexachlorobutadiene	225	7.550	7.556	-0.006	94	159970	10.0	8.09	
70 4-Chloro-3-methylphenol	107	7.913	7.909	0.004	90	234769	10.0	8.24	
76 Hexachlorocyclopentadiene	237	8.223	8.224	-0.001	41	7794	10.0	0.3809	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
78 2,4,6-Trichlorophenol	196	8.330	8.326	0.004	91	141477	10.0	8.04	
81 2-Chloronaphthalene	162	8.522	8.523	-0.001	98	445238	10.0	6.84	
86 Dimethyl phthalate	163	8.752	8.748	0.004	94	542665	10.0	8.74	
88 2,6-Dinitrotoluene	165	8.816	8.812	0.004	77	117102	10.0	8.46	
89 Acenaphthylene	152	8.907	8.908	-0.001	97	669610	10.0	7.37	
91 Acenaphthene	153	9.067	9.063	0.004	92	426504	10.0	7.24	
92 2,4-Dinitrophenol	184	9.072	9.068	0.004	55	8778	20.0	5.23	
93 4-Nitrophenol	109	9.115	9.105	0.010	86	224981	20.0	23.6	
94 2,4-Dinitrotoluene	165	9.190	9.180	0.010	80	158164	10.0	8.60	
101 Diethyl phthalate	149	9.393	9.388	0.005	95	585629	10.0	9.45	
104 4-Chlorophenyl phenyl ethe	204	9.521	9.517	0.004	96	247901	10.0	7.44	
106 Fluorene	166	9.542	9.533	0.009	95	510121	10.0	7.55	
108 4,6-Dinitro-2-methylphenol	198	9.569	9.559	0.010	64	124187	20.0	17.6	
109 N-Nitrosodiphenylamine	169	9.622	9.618	0.004	66	377655	10.0	10.9	
111 1,2-Diphenylhydrazine	77	9.665	9.661	0.004	95	666088	10.0	13.9	
116 4-Bromophenyl phenyl ether	248	9.969	9.965	0.004	78	134907	10.0	10.3	
118 Hexachlorobenzene	284	10.055	10.051	0.004	86	137226	10.0	9.90	
122 Pentachlorophenol	266	10.231	10.216	0.015	57	19790	20.0	3.19	
126 Phenanthrene	178	10.429	10.419	0.010	97	526386	10.0	7.73	
128 Anthracene	178	10.477	10.467	0.010	97	510907	10.0	7.45	
132 Di-n-butyl phthalate	149	10.910	10.895	0.015	98	566133	10.0	8.36	
137 Fluoranthene	202	11.700	11.685	0.015	96	471708	10.0	6.75	
138 Benzidine	184		11.813					ND	
139 Pyrene	202	11.994	11.984	0.010	98	490348	10.0	7.33	
144 Butyl benzyl phthalate	149	12.832	12.817	0.015	89	229463	10.0	9.32	
149 3,3'-Dichlorobenzidine	252	13.783	13.768	0.015	78	119004	10.0	6.49	
151 Bis(2-ethylhexyl) phthalat	149	13.815	13.800	0.015	93	318089	10.0	9.64	
152 Benzo[a]anthracene	228	13.858	13.838	0.020	96	426503	10.0	7.52	
153 Chrysene	228	13.933	13.907	0.026	95	383092	10.0	7.00	
156 Di-n-octyl phthalate	149	15.108	15.087	0.021	98	507610	10.0	8.39	
158 Benzo[b]fluoranthene	252	15.984	15.963	0.021	95	388505	10.0	5.97	
159 Benzo[k]fluoranthene	252	16.037	16.017	0.020	96	378752	10.0	6.34	
160 Benzo[a]pyrene	252	16.662	16.642	0.020	75	375625	10.0	6.72	
163 Indeno[1,2,3-cd]pyrene	276	18.975	18.949	0.026	97	484442	10.0	8.35	
164 Dibenz(a,h)anthracene	278	19.001	18.981	0.020	86	416164	10.0	8.34	
165 Benzo[g,h,i]perylene	276	19.562	19.537	0.026	96	429269	10.0	8.89	

### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

SVTAPITINTRNi\_00006

Amount Added: 1.00

Units: uL

Run Reagent

Report Date: 31-Oct-2014 02:43:09

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CH731\20141030-4095.b\V1030027.D

Injection Date: 30-Oct-2014 20:37:30

Instrument ID: CH731

Operator ID: 003200

Lims ID: 180-37750-A-4-B MSD

Worklist Smp#: 27

Client ID: SD-B01

Injection Vol: 2.0 ul

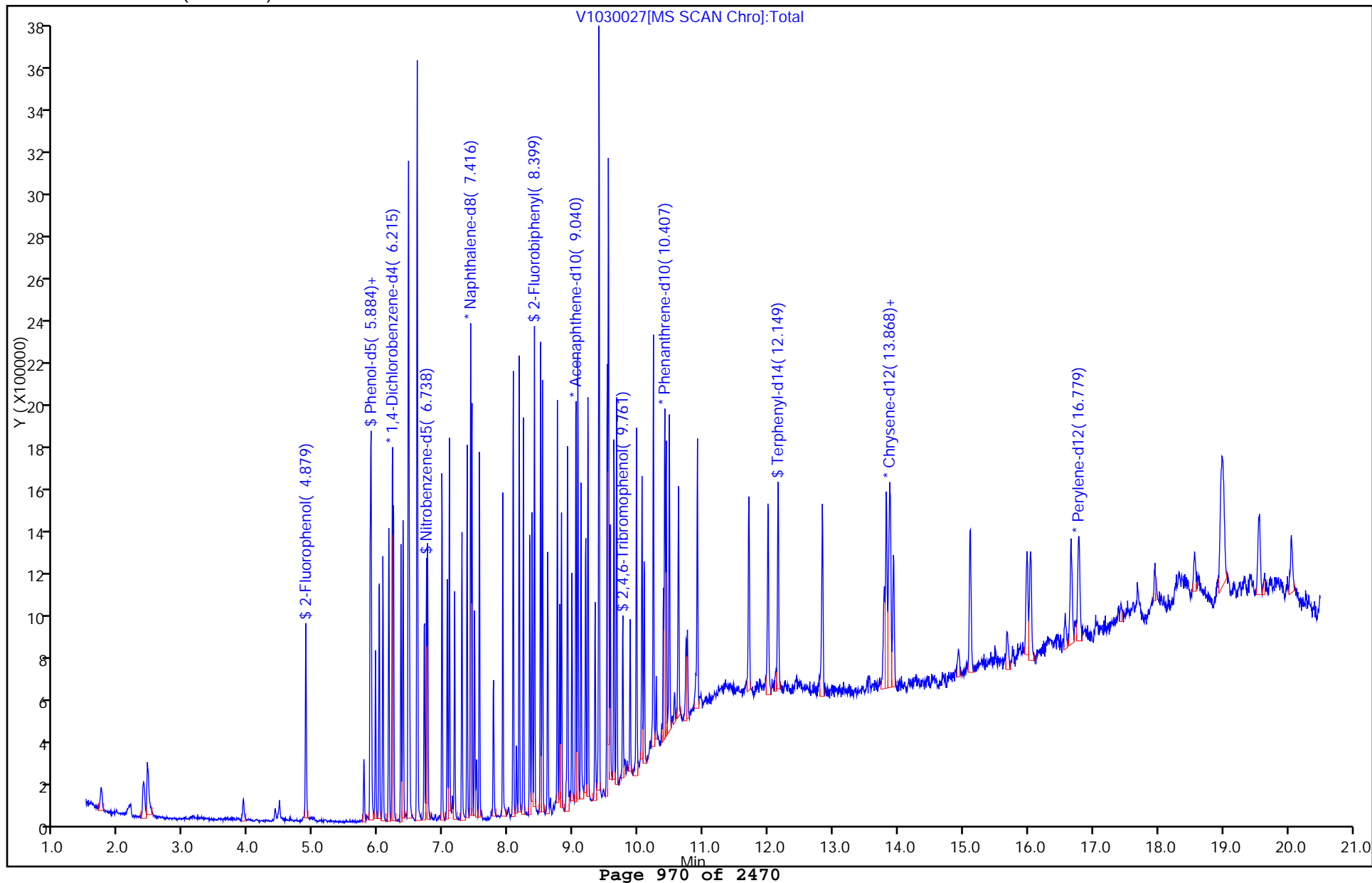
Dil. Factor: 4.0000

ALS Bottle#: 26

Method: BNA\_CH731

Limit Group: BNA 8270D ICAL

Column: Rxi-5SilMS ( 0.32 mm)





## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731 Start Date: 08/28/2014 02:04Analysis Batch Number: 116278 End Date: 08/28/2014 07:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-116278/2		08/28/2014 02:04	1	V0828002.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/3		08/28/2014 02:22	1	V0828003.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/4		08/28/2014 02:52	1	V0828004.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/5		08/28/2014 03:21	1	V0828005.D	Rxi-5SilMS 0.32 (mm)
ICIS 180-116278/6		08/28/2014 03:50	1	V0828006.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/7		08/28/2014 04:19	1	V0828007.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/8		08/28/2014 04:48	1	V0828008.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/9		08/28/2014 05:18	1	V0828009.D	Rxi-5SilMS 0.32 (mm)
IC 180-116278/10		08/28/2014 05:47	1	V0828010.D	Rxi-5SilMS 0.32 (mm)
ICV 180-116278/11		08/28/2014 06:17	1		Rxi-5SilMS 0.32 (mm)
ICV 180-116278/12		08/28/2014 06:46	1		Rxi-5SilMS 0.32 (mm)
ICV 180-116278/13		08/28/2014 07:15	1		Rxi-5SilMS 0.32 (mm)
ICV 180-116278/14		08/28/2014 07:45	1		Rxi-5SilMS 0.32 (mm)

## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731Start Date: 10/28/2014 12:06Analysis Batch Number: 122953End Date: 10/28/2014 23:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-122953/2		10/28/2014 12:06	1	V1028002.D	Rxi-5SilMS 0.32 (mm)
CCVIS 180-122953/3		10/28/2014 12:23	1	V1028003.D	Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 12:52	1		Rxi-5SilMS 0.32 (mm)
MB 180-122598/1-A		10/28/2014 13:21	1	V1028005.D	Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 13:50	1		Rxi-5SilMS 0.32 (mm)
LCS 180-122598/2-A		10/28/2014 14:18	1	V1028007.D	Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 14:47	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 15:16	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 15:44	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 16:13	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 16:42	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 17:10	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 17:39	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 18:07	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 18:37	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 19:06	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 19:35	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 20:04	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 20:33	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 21:02	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 21:31	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 21:59	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 22:28	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/28/2014 22:57	1		Rxi-5SilMS 0.32 (mm)
180-37750-1	SD-A01	10/28/2014 23:26	4	V1028026.D	Rxi-5SilMS 0.32 (mm)
180-37750-2	SD-A02	10/28/2014 23:54	5	V1028027.D	Rxi-5SilMS 0.32 (mm)

## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH731Start Date: 10/30/2014 08:58Analysis Batch Number: 123272End Date: 10/30/2014 20:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-123272/2		10/30/2014 08:58	1	V1030002.D	Rxi-5SilMS 0.32 (mm)
CCVIS 180-123272/3		10/30/2014 09:16	1	V1030003.D	Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 09:44	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 10:12	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 10:40	5		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 11:09	10		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 11:38	10		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 12:06	10		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 12:35	5		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 13:03	2		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 13:32	20		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 14:00	5		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 14:29	3		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 14:57	2		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 15:25	3		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 15:54	25		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 16:22	25		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 16:50	25		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 17:19	15		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 17:47	2		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 18:15	10		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/30/2014 18:43	2		Rxi-5SilMS 0.32 (mm)
180-37750-3	SD-A03	10/30/2014 19:12	20	V1030024.D	Rxi-5SilMS 0.32 (mm)
180-37750-4	SD-B01	10/30/2014 19:40	4	V1030025.D	Rxi-5SilMS 0.32 (mm)
180-37750-4 MS	SD-B01 MS	10/30/2014 20:08	4	V1030026.D	Rxi-5SilMS 0.32 (mm)
180-37750-4 MSD	SD-B01 MSD	10/30/2014 20:37	4	V1030027.D	Rxi-5SilMS 0.32 (mm)

## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732 Start Date: 07/28/2014 04:36Analysis Batch Number: 112749 End Date: 07/28/2014 09:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-112749/2		07/28/2014 04:36	1	D0728002.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/3		07/28/2014 04:52	1	D0728003.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/4		07/28/2014 05:18	1	D0728004.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/5		07/28/2014 05:44	1	D0728005.D	Rxi-5SilMS 0.32 (mm)
ICIS 180-112749/6		07/28/2014 06:10	1	D0728006.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/7		07/28/2014 06:37	1	D0728007.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/8		07/28/2014 07:03	1	D0728008.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/9		07/28/2014 07:29	1	D0728009.D	Rxi-5SilMS 0.32 (mm)
IC 180-112749/10		07/28/2014 07:56	1	D0728010.D	Rxi-5SilMS 0.32 (mm)
ICV 180-112749/11		07/28/2014 08:22	1		Rxi-5SilMS 0.32 (mm)
ICV 180-112749/12		07/28/2014 08:48	1		Rxi-5SilMS 0.32 (mm)
ICV 180-112749/13		07/28/2014 09:14	1		Rxi-5SilMS 0.32 (mm)

## GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CH732Start Date: 10/31/2014 11:38Analysis Batch Number: 123453End Date: 10/31/2014 23:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 180-123453/2		10/31/2014 11:38	1	D1031002.D	Rxi-5SilMS 0.32 (mm)
CCVIS 180-123453/3		10/31/2014 11:53	1	D1031003.D	Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 12:19	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 12:42	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 13:08	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 13:30	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 13:52	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 14:15	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 14:41	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 15:26	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 15:52	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 16:18	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 16:44	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 17:10	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 17:36	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 18:02	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 18:28	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 18:54	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 19:20	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 19:46	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 20:12	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 20:38	1		Rxi-5SilMS 0.32 (mm)
ZZZZZ		10/31/2014 21:04	1		Rxi-5SilMS 0.32 (mm)
180-37750-5	SD-B02	10/31/2014 21:30	25	D1031026.D	Rxi-5SilMS 0.32 (mm)
180-37750-6	SD-B02-FD	10/31/2014 21:56	25	D1031027.D	Rxi-5SilMS 0.32 (mm)
180-37750-7	SD-C01	10/31/2014 22:22	10	D1031028.D	Rxi-5SilMS 0.32 (mm)
180-37750-8	SD-C02	10/31/2014 22:48	25	D1031029.D	Rxi-5SilMS 0.32 (mm)
180-37750-9	SD-C03	10/31/2014 23:14	25	D1031030.D	Rxi-5SilMS 0.32 (mm)

## GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122598 Batch Start Date: 10/24/14 03:10 Batch Analyst: Geehring, KevinBatch Method: 3541 Batch End Date: 10/24/14 11:08

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	OPLVISPKMIX1i 00031	OPQL8270SURI 00024		
MB 180-122598/1		3541, 8270D LL		0.5 mL	30.0 g		50 uL		
LCS 180-122598/2		3541, 8270D LL		0.5 mL	30.0 g	50 uL	50 uL		
180-37750-A-4 MS	SD-B01	3541, 8270D LL	T	0.5 mL	30.1 g	50 uL	50 uL		
180-37750-A-4 MSD	SD-B01	3541, 8270D LL	T	0.5 mL	30.0 g	50 uL	50 uL		
180-37750-A-1	SD-A01	3541, 8270D LL	T	0.5 mL	30.1 g		50 uL		
180-37750-A-2	SD-A02	3541, 8270D LL	T	0.5 mL	30.0 g		50 uL		
180-37750-A-3	SD-A03	3541, 8270D LL	T	0.5 mL	30.0 g		50 uL		
180-37750-C-4	SD-B01	3541, 8270D LL	T	0.5 mL	30.2 g		50 uL		
180-37750-C-5	SD-B02	3541, 8270D LL	T	0.5 mL	30.1 g		50 uL		
180-37750-A-6	SD-B02-FD	3541, 8270D LL	T	0.5 mL	30.0 g		50 uL		
180-37750-A-7	SD-C01	3541, 8270D LL	T	0.5 mL	30.2 g		50 uL		
180-37750-A-8	SD-C02	3541, 8270D LL	T	0.5 mL	30.0 g		50 uL		
180-37750-A-9	SD-C03	3541, 8270D LL	T	0.5 mL	30.2 g		50 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270D LL

Page 1 of 2

## GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122598 Batch Start Date: 10/24/14 03:10 Batch Analyst: Geehring, KevinBatch Method: 3541 Batch End Date: 10/24/14 11:08

Batch Notes	
Balance ID	1120122641
Batch Comment	sox # 5 - 6 - 7
Person's name who did the concentration	kg
Exchange Solvent Lot #	1364992
Exchange Solvent Name	Methylene chloride
Magnesium Sulfate Lot #	1361305
N-evap #	2
Na2SO4 Lot Number	1369078
Person's name who did the prep	kg kg
Solvent	Mec12 / Acetone
Solvent Lot #	1226042
Uncorrected N-evap Temperature	32 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Method 8082A Low Level

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Polychlorinated Biphenyls (PCBs)  
(GC) by Method 8082A Low Level



FORM II  
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low  
GC Column (2): RTX-CLP2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX2 #	DCB2 #
SD-B01	180-37750-4	77	98
SD-B02	180-37750-5	80	204 X
SD-B02-FD	180-37750-6	79	332 X
SD-C01	180-37750-7	71	115
SD-C02	180-37750-8	90	207 X
SD-C03	180-37750-9	69	260 X
	MB 180-122691/1-C	85	97
	LCS 180-122691/2-C	70	96
SD-B01 MS	180-37750-4 MS	76	92
SD-B01 MSD	180-37750-4 MSD	75	95

	<u>QC LIMITS</u>
TCX = Tetrachloro-m-xylene (Surr)	30-150
DCB = DCB Decachlorobiphenyl (Surr)	20-150

# Column to be used to flag recovery values

FORM III  
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low Lab File ID: 103014031.D  
Lab ID: LCS 180-122691/2-C Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	33.3	25.8	77	50-120	
PCB-1260	33.3	29.8	89	50-120	

# Column to be used to flag recovery and RPD values

FORM III  
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low Lab File ID: 103014017.D  
Lab ID: 180-37750-4 MS Client ID: SD-B01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
PCB-1016	47.2	ND	35.4	75	50-120	
PCB-1260	47.2	1.9 J	35.6	71	50-120	

# Column to be used to flag recovery and RPD values

FORM III  
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Matrix: Sediment Level: Low Lab File ID: 103014018.D  
Lab ID: 180-37750-4 MSD Client ID: SD-B01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
PCB-1016	46.9	35.7	76	1	30	50-120	
PCB-1260	46.9	36.9	75	4	30	50-120	

# Column to be used to flag recovery and RPD values

FORM IV  
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: MB 180-122691/1-C  
Matrix: Sediment Date Extracted: 10/25/2014 03:15  
Lab File ID: (1) \_\_\_\_\_ Lab File ID: (2) 103014015.D  
Date Analyzed: (1) \_\_\_\_\_ Date Analyzed: (2) 10/30/2014 11:11  
Instrument ID: (1) \_\_\_\_\_ Instrument ID: (2) CHGC16  
GC Column: (1) \_\_\_\_\_ ID: \_\_\_\_\_ GC Column: (2) RTX-CLP2 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
SD-B01	180-37750-4		10/30/2014 11:30
SD-B01 MS	180-37750-4 MS		10/30/2014 11:49
SD-B01 MSD	180-37750-4 MSD		10/30/2014 12:09
SD-B02	180-37750-5		10/30/2014 12:28
SD-B02-FD	180-37750-6		10/30/2014 12:47
SD-C01	180-37750-7		10/30/2014 13:06
SD-C02	180-37750-8		10/30/2014 13:25
SD-C03	180-37750-9		10/30/2014 13:44
	LCS 180-122691/2-C		10/30/2014 16:19

FORM VIII  
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVRT 180-123252/1 Date Analyzed: 10/30/2014 06:42  
 Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm)  
 Lab File ID (Standard): 103014001.D Heated Purge: (Y/N) N  
 Calibration ID: 18828

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				3.92	13.23	
UPPER LIMIT				3.97	13.28	
LOWER LIMIT				3.87	13.18	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 180-123252/1		10/30/2014 06:42	103014001.D	3.92	13.23	
CCV 180-123252/14		10/30/2014 10:51	103014014.D	3.91	13.23	
MB 180-122691/1-C		10/30/2014 11:11	103014015.D	3.91	13.23	
180-37750-4	SD-B01	10/30/2014 11:30	103014016.D	3.91	13.23	
180-37750-4 MS	SD-B01 MS	10/30/2014 11:49	103014017.D	3.91	13.23	
180-37750-4 MSD	SD-B01 MSD	10/30/2014 12:09	103014018.D	3.91	13.23	
180-37750-5	SD-B02	10/30/2014 12:28	103014019.D	3.91	13.23	
180-37750-6	SD-B02-FD	10/30/2014 12:47	103014020.D	3.91	13.23	
180-37750-7	SD-C01	10/30/2014 13:06	103014021.D	3.91	13.23	
180-37750-8	SD-C02	10/30/2014 13:25	103014022.D	3.91	13.23	
180-37750-9	SD-C03	10/30/2014 13:44	103014023.D	3.91	13.23	
LCS 180-122691/2-C		10/30/2014 16:19	103014031.D	3.92	13.24	
CCV 180-123252/32		10/30/2014 16:38	103014032.D	3.92	13.24	

TCX = Tetrachloro-m-xylene  
 DCB = DCB Decachlorobiphenyl (Surr)

TCX RT Limit =  $\pm 0.05$  minutes of surrogate RT  
 DCB RT Limit =  $\pm 0.05$  minutes of surrogate RT

# Column used to flag values outside QC limits

FORM X  
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MS Lab Sample ID: 180-37750-4 MS

Instrument ID (1): \_\_\_\_\_ Instrument ID (2): CHGC16

Date Analyzed (1): \_\_\_\_\_ Date Analyzed (2): 10/30/2014 11:49

GC Column (1): \_\_\_\_\_ ID: \_\_\_\_\_ GC Column (2): RTX-CLP2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
PCB-1016	2	1	5.02	4.98	5.08	35.0	35.4	
		2	5.71	5.66	5.76	36.2		
		3	5.92	5.87	5.97	33.1		
		4	6.09	6.04	6.14	33.2		
		5	7.51	7.46	7.56	39.8		
PCB-1260	2	1	9.55	9.50	9.60	36.3	35.6	
		2	10.16	10.11	10.21	36.9		
		3	10.77	10.72	10.82	34.9		
		4	11.14	11.09	11.19	35.8		
		5	11.68	11.63	11.73	34.3		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MSD Lab Sample ID: 180-37750-4 MSD

Instrument ID (1): \_\_\_\_\_ Instrument ID (2): CHGC16

Date Analyzed (1): \_\_\_\_\_ Date Analyzed (2): 10/30/2014 12:09

GC Column (1): \_\_\_\_\_ ID: \_\_\_\_\_ GC Column (2): RTX-CLP2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
PCB-1016	2	1	5.03	4.98	5.08	34.9	35.7	
		2	5.71	5.66	5.76	36.7		
		3	5.92	5.87	5.97	32.4		
		4	6.09	6.04	6.14	33.9		
		5	7.51	7.46	7.56	40.6		
PCB-1221	2	1	3.41	3.36	3.46	5.39	14.0	
		2	4.24	4.19	4.29	10.3		
		3	4.49	4.44	4.54	26.5		
PCB-1232	2	1	4.24	4.19	4.29	14.8	54.9	
		2	4.49	4.44	4.54	30.8		
		3	5.03	4.97	5.07	75.1		
		4	5.71	5.66	5.76	80.4		
		5	5.92	5.87	5.97	73.4		
PCB-1242	2	1	4.49	4.44	4.54	44.0	36.8	
		2	5.03	4.98	5.08	43.4		
		3	5.71	5.66	5.76	45.3		
		4	6.72	6.67	6.77	44.6		
		5	8.00	7.95	8.05	7.00		
PCB-1248	2	1	6.24	6.19	6.29	20.7	14.6	
		2	6.72	6.67	6.77	22.8		
		3	7.42	7.37	7.47	8.50		
		4	7.51	7.47	7.57	17.4		
		5	8.00	7.95	8.05	3.75		
PCB-1254	2	1	7.51	7.44	7.58	21.6	23.8	
		2	7.89	7.82	7.96	14.9		
		3	8.82	8.75	8.89	6.71		
		4	9.18	9.16	9.30	37.7		
		5	10.16	10.09	10.23	38.0		
PCB-1260	2	1	9.55	9.50	9.60	37.5	36.9	
		2	10.16	10.11	10.21	38.4		
		3	10.77	10.72	10.82	36.4		
		4	11.14	11.09	11.19	37.5		
		5	11.67	11.63	11.73	34.7		



FORM X  
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-122691/2-C  
 Instrument ID (1): \_\_\_\_\_ Instrument ID (2): CHGC16  
 Date Analyzed (1): \_\_\_\_\_ Date Analyzed (2): 10/30/2014 16:19  
 GC Column (1): \_\_\_\_\_ ID: \_\_\_\_\_ GC Column (2): RTX-CLP2 ID: 0.53 (mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
PCB-1016	2	1	5.03	4.98	5.08	24.2	25.8	
		2	5.72	5.66	5.76	27.8		
		3	5.93	5.87	5.97	25.6		
		4	6.10	6.04	6.14	25.8		
		5	7.52	7.46	7.56	25.6		
PCB-1260	2	1	9.56	9.50	9.60	28.6	29.8	
		2	10.17	10.11	10.21	28.7		
		3	10.78	10.72	10.82	29.3		
		4	11.15	11.09	11.19	30.5		
		5	11.68	11.63	11.73	31.8		

FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: SD-B01 Lab Sample ID: 180-37750-4  
 Matrix: Sediment Lab File ID: 103014016.D  
 Analysis Method: 8082A Date Collected: 10/13/2014 12:50  
 Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
 Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 11:30  
 Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
 Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
 % Moisture: 29.3 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		5.9	0.88
11104-28-2	PCB-1221	ND		5.9	1.1
11141-16-5	PCB-1232	ND		5.9	1.0
53469-21-9	PCB-1242	ND		5.9	0.96
12672-29-6	PCB-1248	ND		5.9	0.56
11097-69-1	PCB-1254	2.9	J	5.9	0.84
11096-82-5	PCB-1260	1.9	J	5.9	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	98		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	77		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D  
 Lims ID: 180-37750-C-4-H Lab Sample ID: 180-37750-4  
 Client ID: SD-B01  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 11:30:25 ALS Bottle#: 16 Worklist Smp#: 16  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-016  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 12:20:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.245	3.244	0.001	2123866H	0.001500	
2	3.913	3.913	0.000	1583002H	0.001533	
RPD = 2.15						

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1	3.566				ND	
1	3.915					
1	4.416					
1	5.088					
1	5.715					
2	4.489				ND	
2	5.025					
2	5.708					
2	6.719					
2	7.997					

## 4 PCB-1016

1	3.567				ND	
1	3.917					
1	4.418					
1	4.572					
1	5.089					
2	5.025				ND	
2	5.707					
2	5.921					
2	6.093					
2	7.510					

## 6 PCB-1248

1	4.796				ND	
1	5.087					
1	5.675					
1	6.015					
1	6.660					
2	6.241				ND	
2	6.719					
2	7.419					
2	7.515					
2	7.999					

## 7 PCB-1254

1	5.625	5.621	0.004	93129H	0.003019	
1	6.038	6.004	0.034	516469H	0.0115	
1	6.663	6.658	0.005	219670H	0.003809	
1	7.154	7.144	0.010	183750H	0.004317	
1	8.070	8.057	0.013	227884H	0.005406	
Average of Peak Amounts =					0.005613	
2	7.511	7.506	0.005	197935H	0.008119	
2	7.898	7.891	0.007	144126H	0.005229	
2	8.821	8.820	0.001	195762H	0.004719	
2	9.234	9.232	0.002	198394H	0.006080	
2	10.160	10.157	0.003	253005H	0.006804	

Average of Peak Amounts = 0.006190

RPD = 9.78

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.070	8.069	0.001	227884H	0.004951	
1	8.766	8.773	-0.007	42280H	0.001148	
1	9.327	9.332	-0.005	237155H	0.002702	
1	9.812	9.810	0.002	127662H	0.002645	
1	10.789	10.786	0.003	86265H	0.003090	

Average of Peak Amounts = 0.002907

2	9.545	9.547	-0.002	233892H	0.005148	
2	10.160	10.158	0.002	253005H	0.006870	
2	10.769	10.768	0.001	81404H	0.002230	
2	11.144	11.142	0.002	248917H	0.002708	
2	11.681	11.675	0.006	140656H	0.003288	

Average of Peak Amounts = 0.004049

RPD = 32.82

## 9 PCB-1262

1	8.284				ND	
1	8.753					
1	9.311					
1	9.860					
1	10.775					
2	10.298				ND	
2	10.767					
2	11.139					
2	11.665					
2	12.461					

## 10 PCB-1268

1	9.864				ND	
1	10.237					
1	10.778					
1	11.197					
2	11.662				ND	
2	12.083					
2	12.463					
2	12.896					

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.472	11.476	-0.004	1526238H	0.001743	
2	13.231	13.230	0.001	1615588H	0.001957	

RPD = 11.59

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D

Injection Date: 30-Oct-2014 11:30:25

Instrument ID: CHGC16

Lims ID: 180-37750-C-4-H

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 16

Worklist Smp#: 16

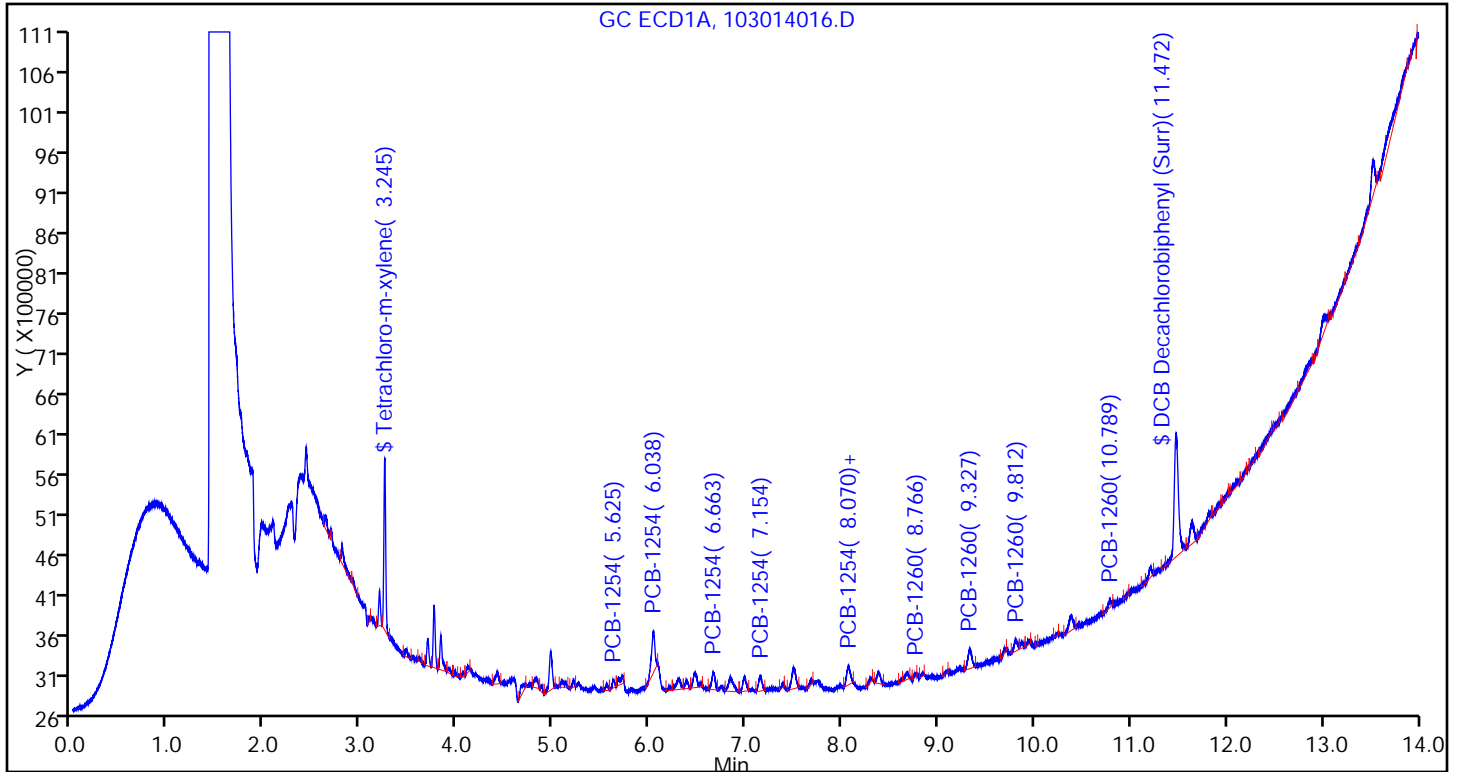
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

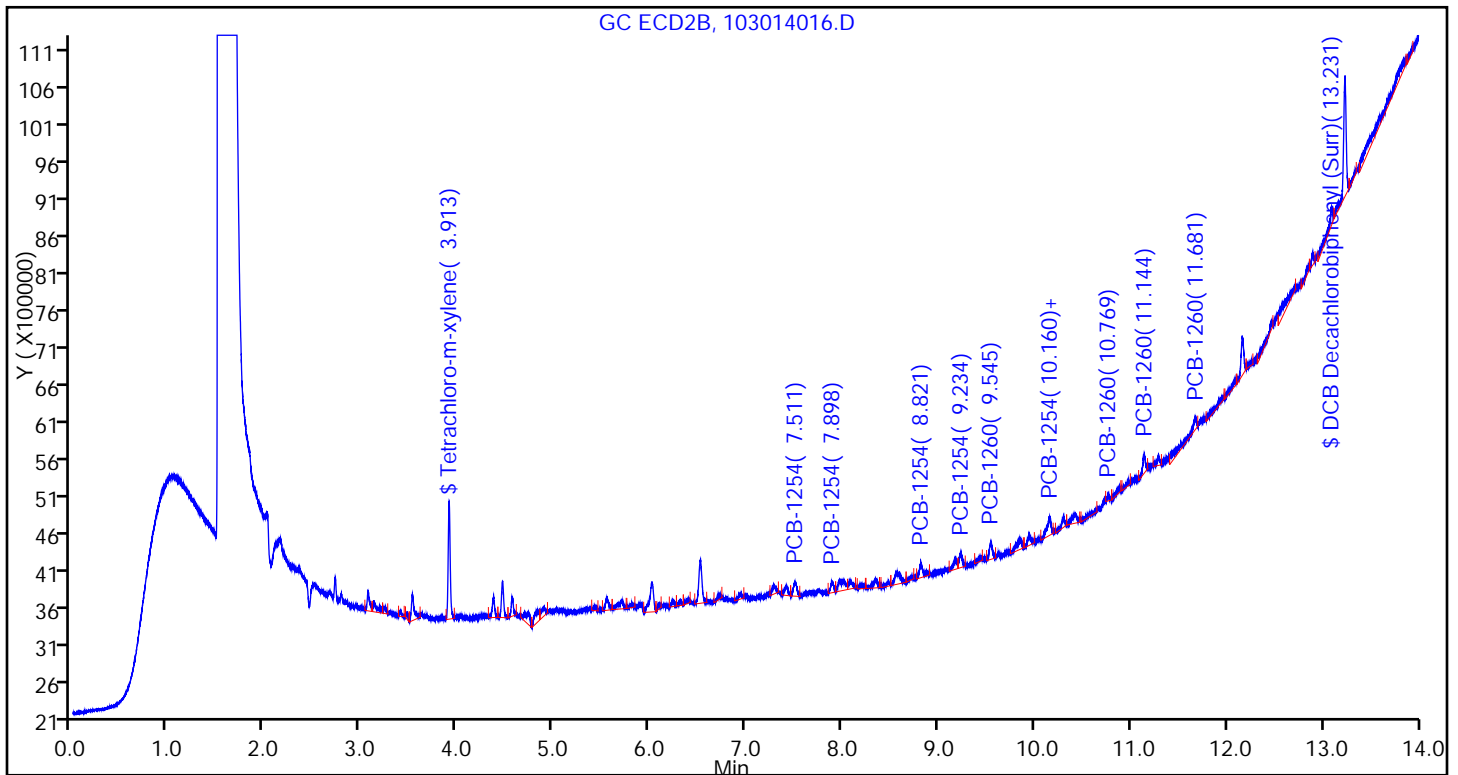
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:24:20

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D

Injection Date: 30-Oct-2014 11:30:25

Instrument ID: CHGC16

Lims ID: 180-37750-C-4-H

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 16

Worklist Smp#: 16

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

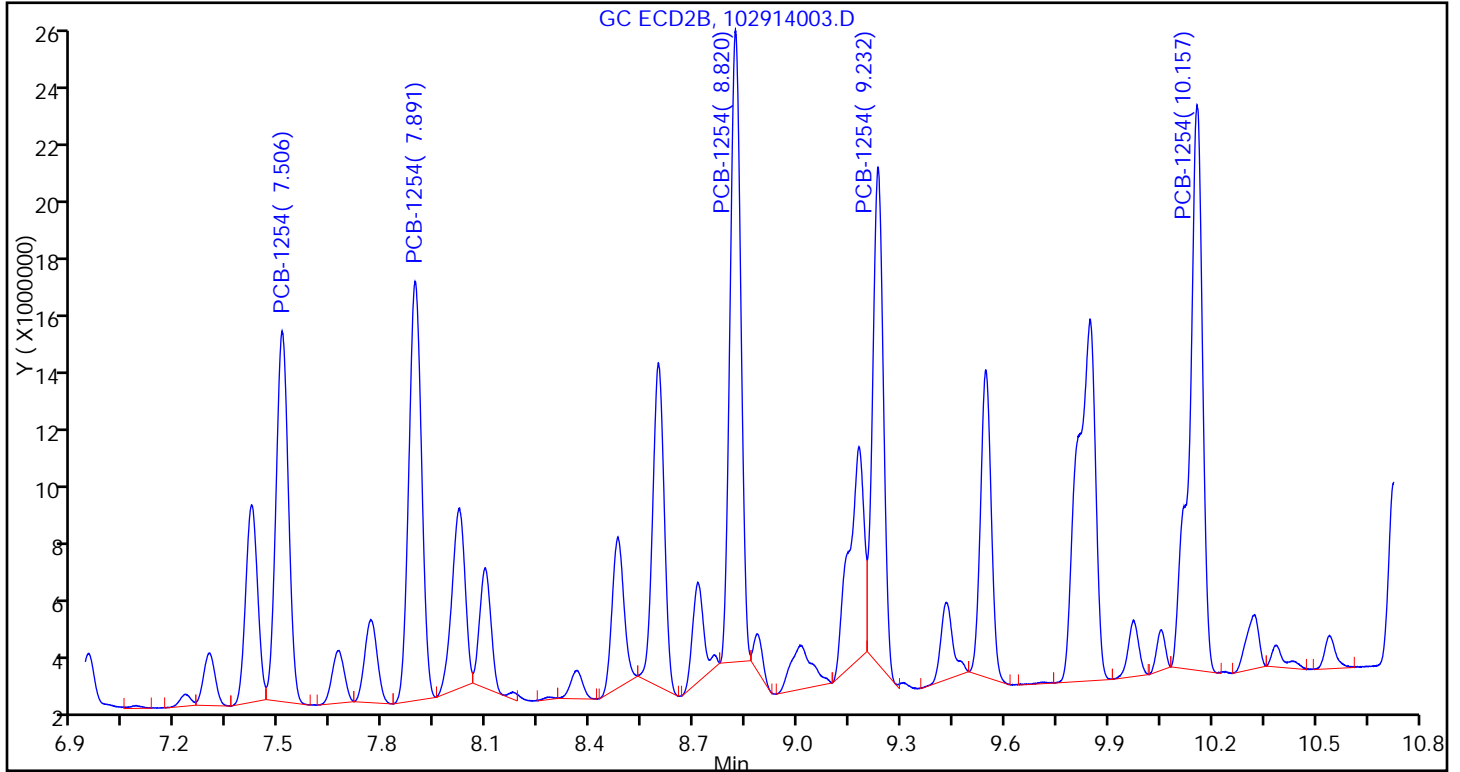
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

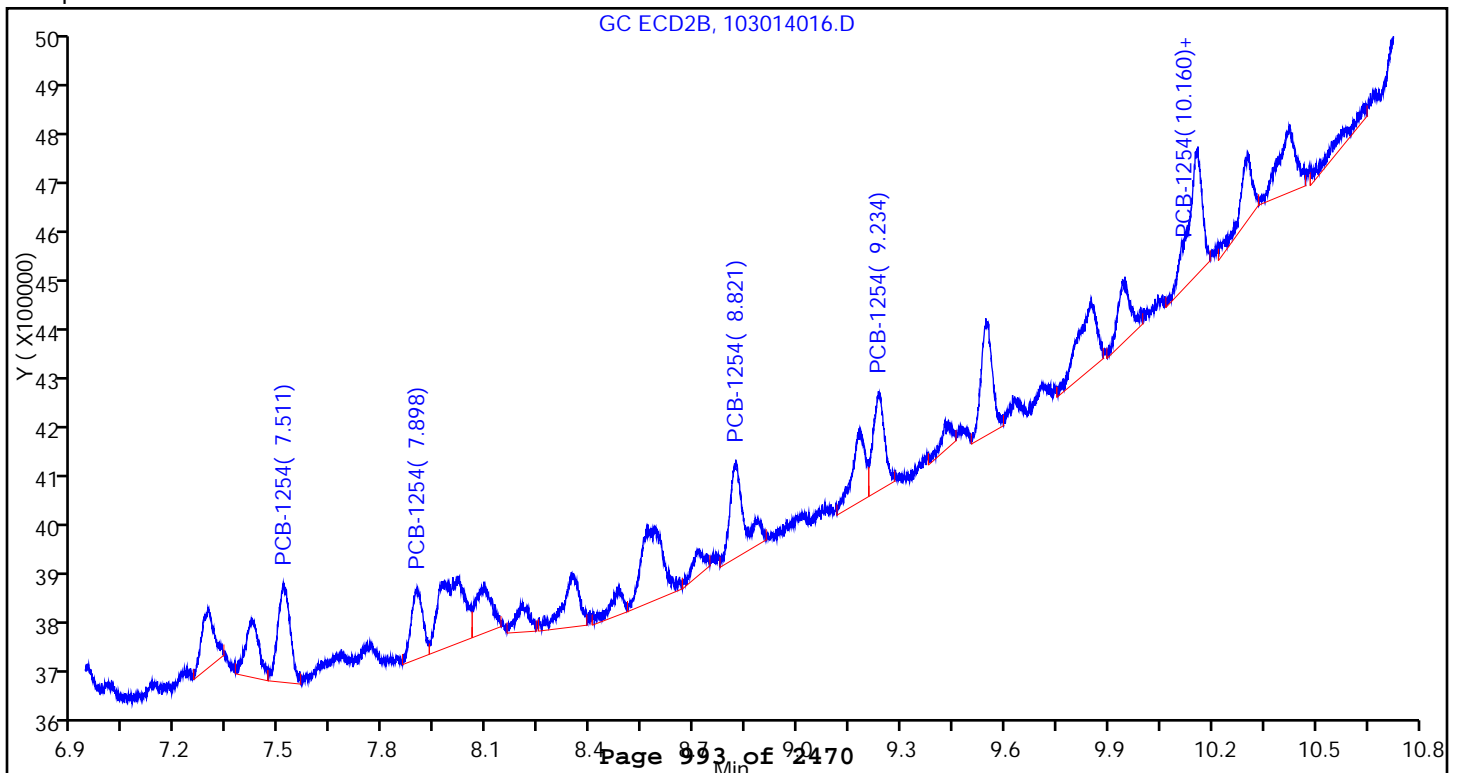
Detector GC ECD2B

7 PCB-1254, CAS: 11097-69-1

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:20

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014016.D

Injection Date: 30-Oct-2014 11:30:25

Instrument ID: CHGC16

Lims ID: 180-37750-C-4-H

Lab Sample ID: 180-37750-4

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 16

Worklist Smp#: 16

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

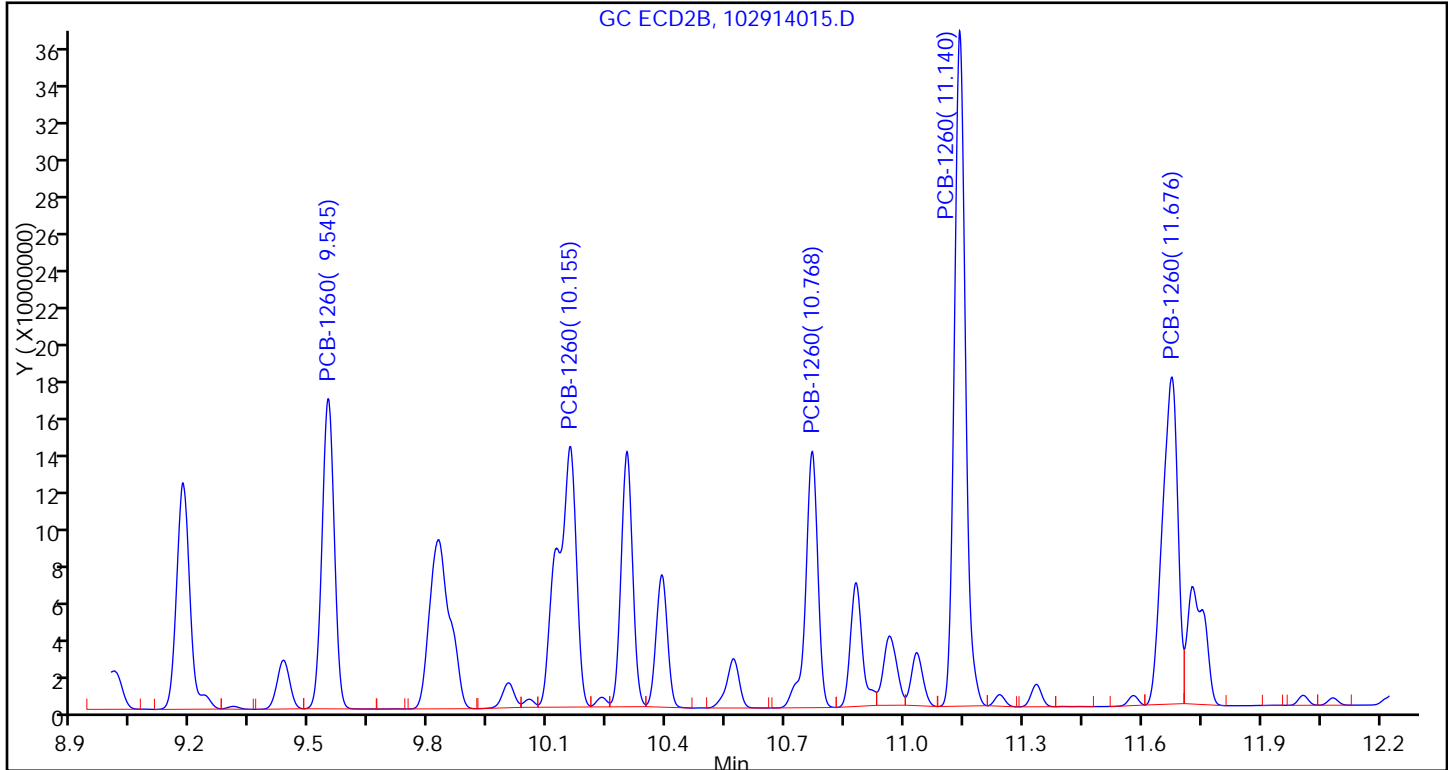
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

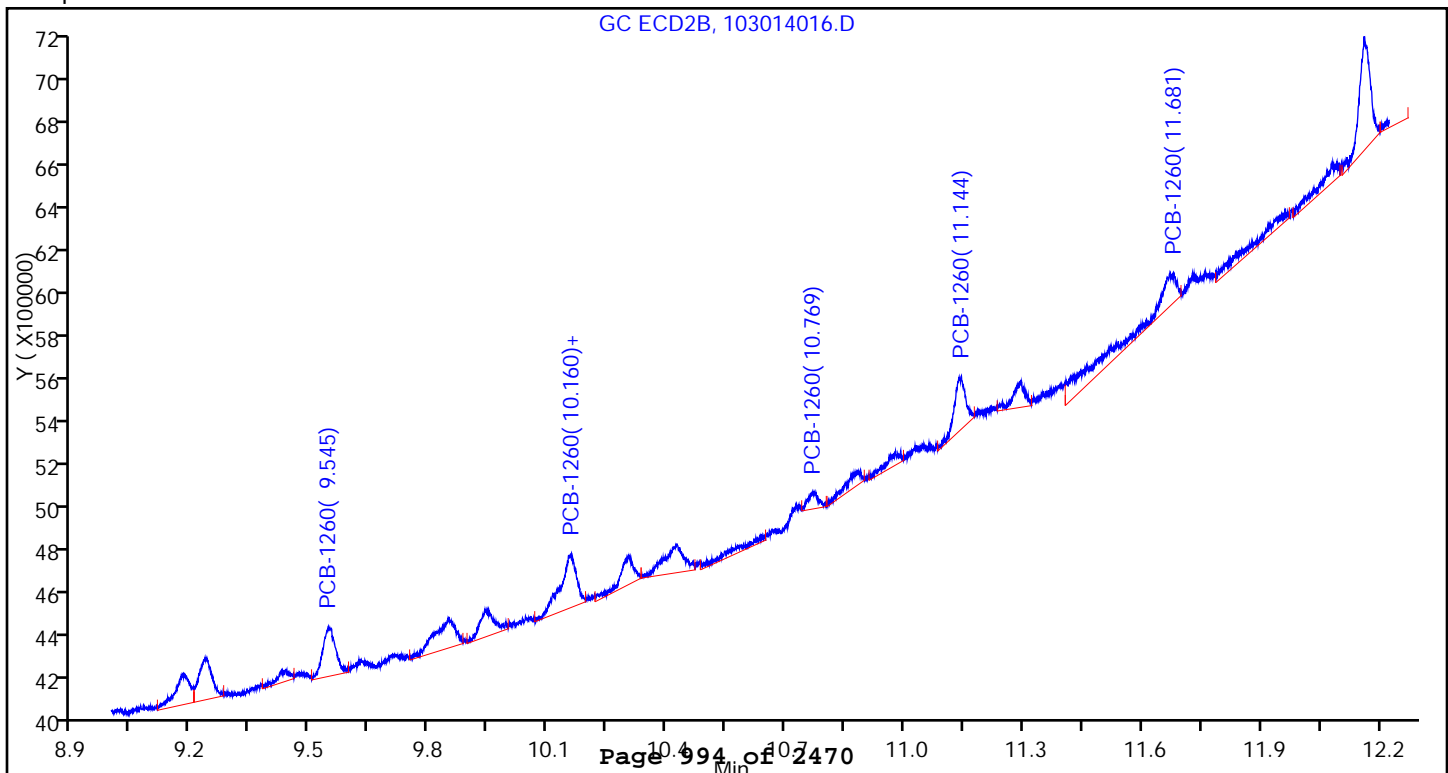
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample





FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: SD-B02 Lab Sample ID: 180-37750-5  
Matrix: Sediment Lab File ID: 103014019.D  
Analysis Method: 8082A Date Collected: 10/13/2014 12:10  
Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 12:28  
Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
% Moisture: 76.0 GPC Cleanup: (Y/N) N  
Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		17	2.6
11104-28-2	PCB-1221	ND		17	3.3
11141-16-5	PCB-1232	ND		17	3.0
53469-21-9	PCB-1242	ND		17	2.8
12672-29-6	PCB-1248	78		17	1.6
11097-69-1	PCB-1254	ND		17	2.5
11096-82-5	PCB-1260	49		17	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	204	X	20-150
877-09-8	Tetrachloro-m-xylene (Surr)	80		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D  
 Lims ID: 180-37750-C-5-E Lab Sample ID: 180-37750-5  
 Client ID: SD-B02  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 12:28:18 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-019  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 13:19:29

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
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## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.242	3.244	-0.002	2231429H	0.001576	
2	3.912	3.913	-0.001	1643270H	0.001591	
RPD = 0.94						

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1		3.566			ND	
1		3.915				
1		4.416				
1		5.088				
1		5.715				
2		4.489			ND	
2		5.025				
2		5.708				
2		6.719				
2		7.997				

## 4 PCB-1016

1		3.567			ND	
1		3.917				
1		4.418				
1		4.572				
1		5.089				
2		5.025			ND	
2		5.707				
2		5.921				
2		6.093				
2		7.510				

## 6 PCB-1248

1	4.793	4.796	-0.003	1865360H	0.0570	
1	5.085	5.087	-0.002	1587436H	0.0407	
1	5.674	5.675	-0.001	2036097H	0.0472	
1	6.006	6.015	-0.009	3179604H	0.1011	
1	6.656	6.660	-0.004	2417037H	0.1175	
Average of Peak Amounts =					0.0727	
2	6.238	6.241	-0.003	1063861H	0.0491	
2	6.717	6.719	-0.002	1073982H	0.0406	
2	7.420	7.419	0.001	1554862H	0.0549	
2	7.512	7.515	-0.003	2467802H	0.0815	
2	8.005	7.999	0.006	1285179H	0.0562	

Average of Peak Amounts = 0.0565

RPD = 25.15

## 7 PCB-1254

1		5.621			ND	
1		6.004				
1		6.658				
1		7.144				
1		8.057				
2		7.506			ND	
2		7.891				
2		8.820				
2		9.232				
2		10.157				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 8 PCB-1260

1	8.062	8.069	-0.007	2873912H	0.0624	
1	8.763	8.773	-0.010	683303H	0.0186	
1	9.331	9.332	-0.001	2359616H	0.0269	
1	9.807	9.810	-0.003	1565846H	0.0324	
1	10.785	10.786	-0.001	809727H	0.0290	

Average of Peak Amounts = 0.0339

2	9.548	9.547	0.001	2403902H	0.0529	
2	0.000	10.158	-10.158	0H	0	
2	10.771	10.768	0.003	753626H	0.0206	
2	11.142	11.142	0.000	2904427H	0.0316	
2	11.677	11.675	0.002	1514580H	0.0354	

Average of Peak Amounts = 0.0351

RPD = 3.69

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.476	11.476	0.000	2315488H	0.002644	
2	13.229	13.230	-0.001	3363480H	0.004074	

RPD = 42.58

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D

Injection Date: 30-Oct-2014 12:28:18

Instrument ID: CHGC16

Lims ID: 180-37750-C-5-E

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 402331

ALS Bottle#: 19

Worklist Smp#: 19

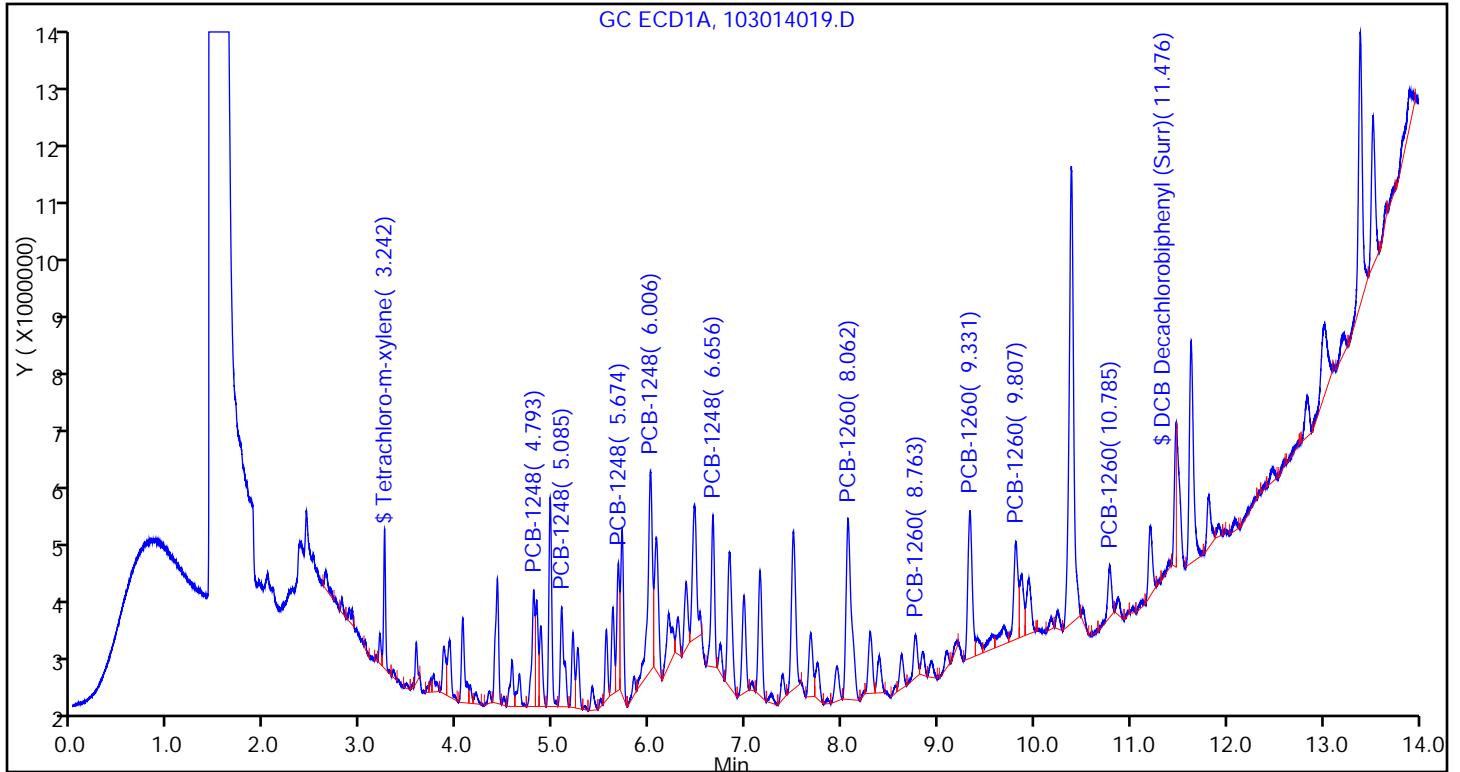
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

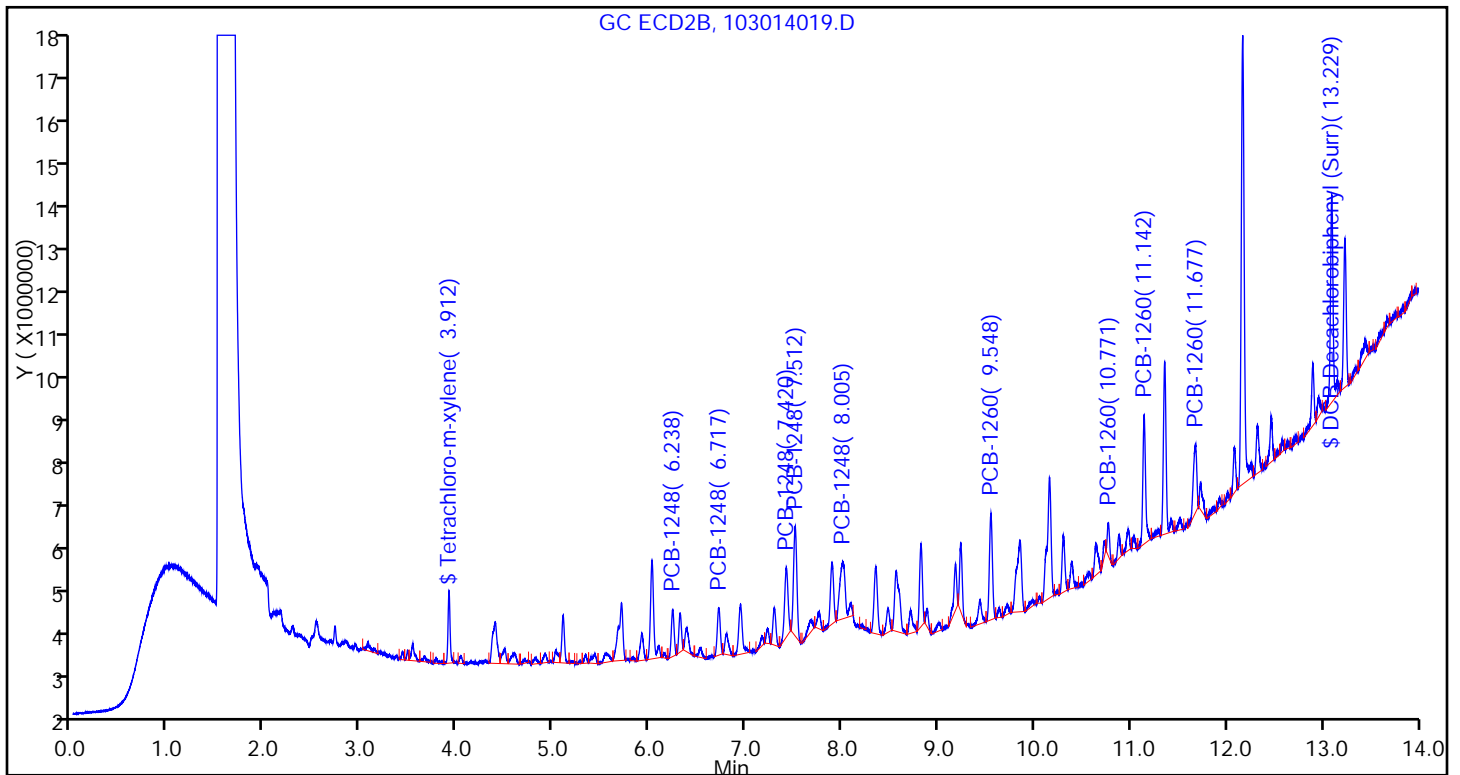
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:24:07

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D

Injection Date: 30-Oct-2014 12:28:18

Instrument ID: CHGC16

Lims ID: 180-37750-C-5-E

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 402331

ALS Bottle#: 19

Worklist Smp#: 19

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

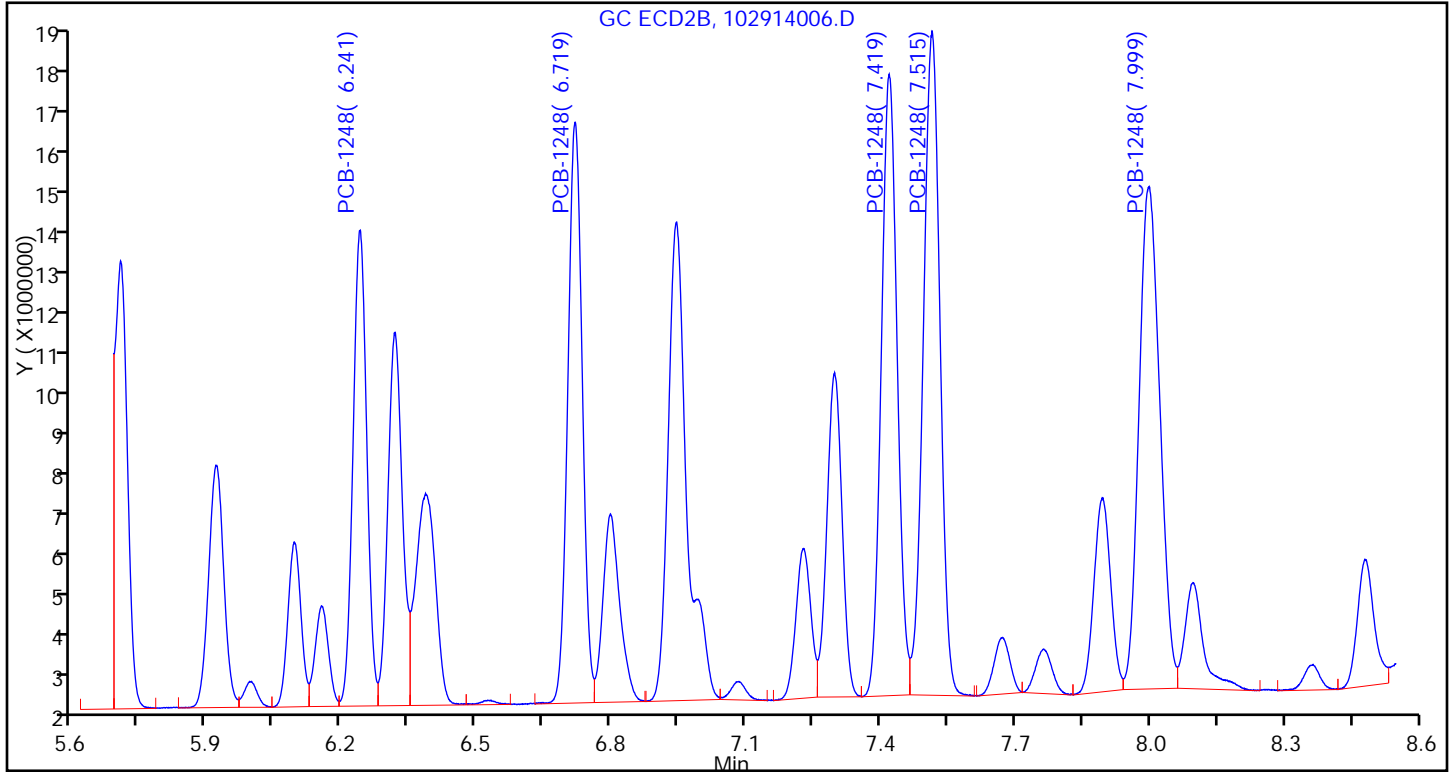
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

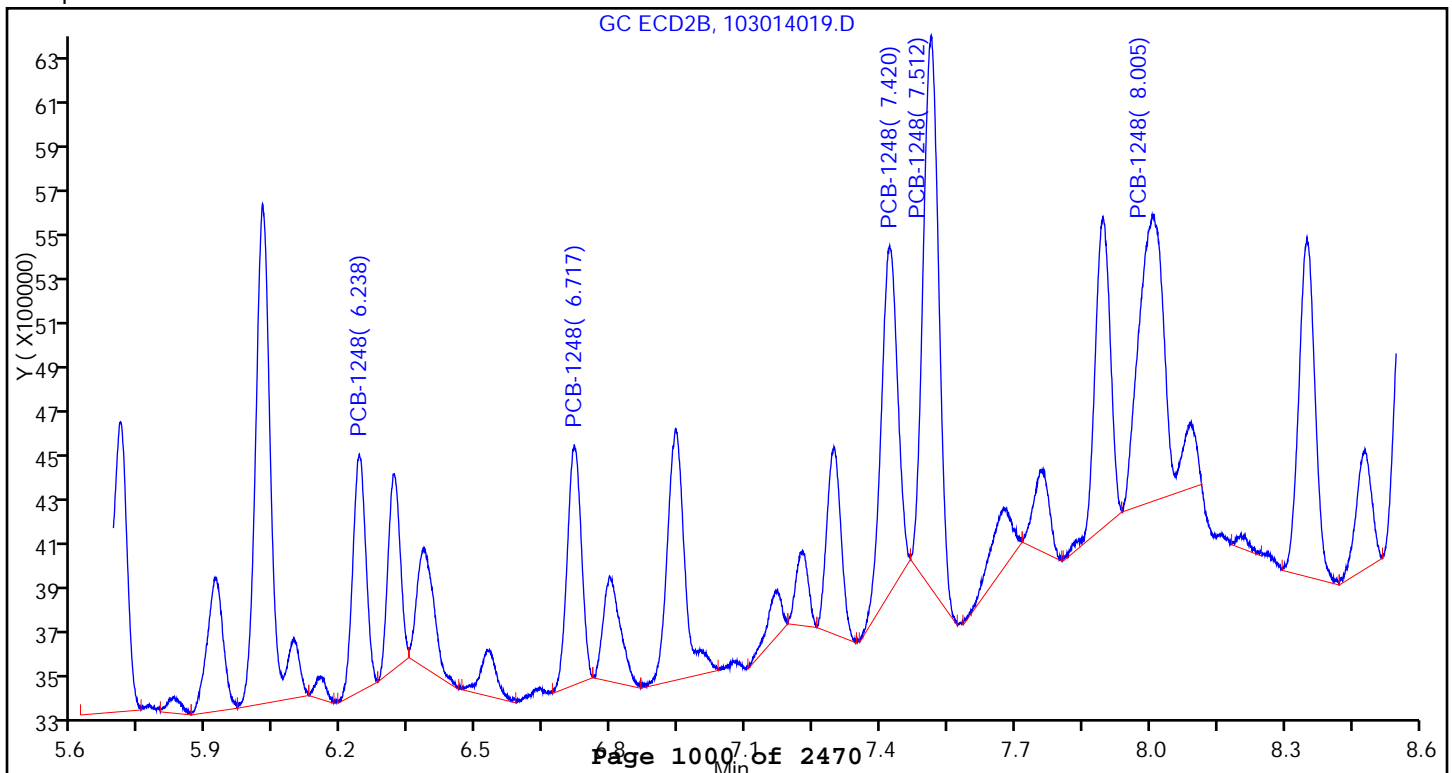
Detector: GC ECD2B

6 PCB-1248, CAS: 12672-29-6

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:07

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014019.D

Injection Date: 30-Oct-2014 12:28:18

Instrument ID: CHGC16

Lims ID: 180-37750-C-5-E

Lab Sample ID: 180-37750-5

Client ID: SD-B02

Operator ID: 402331

ALS Bottle#: 19 Worklist Smp#: 19

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

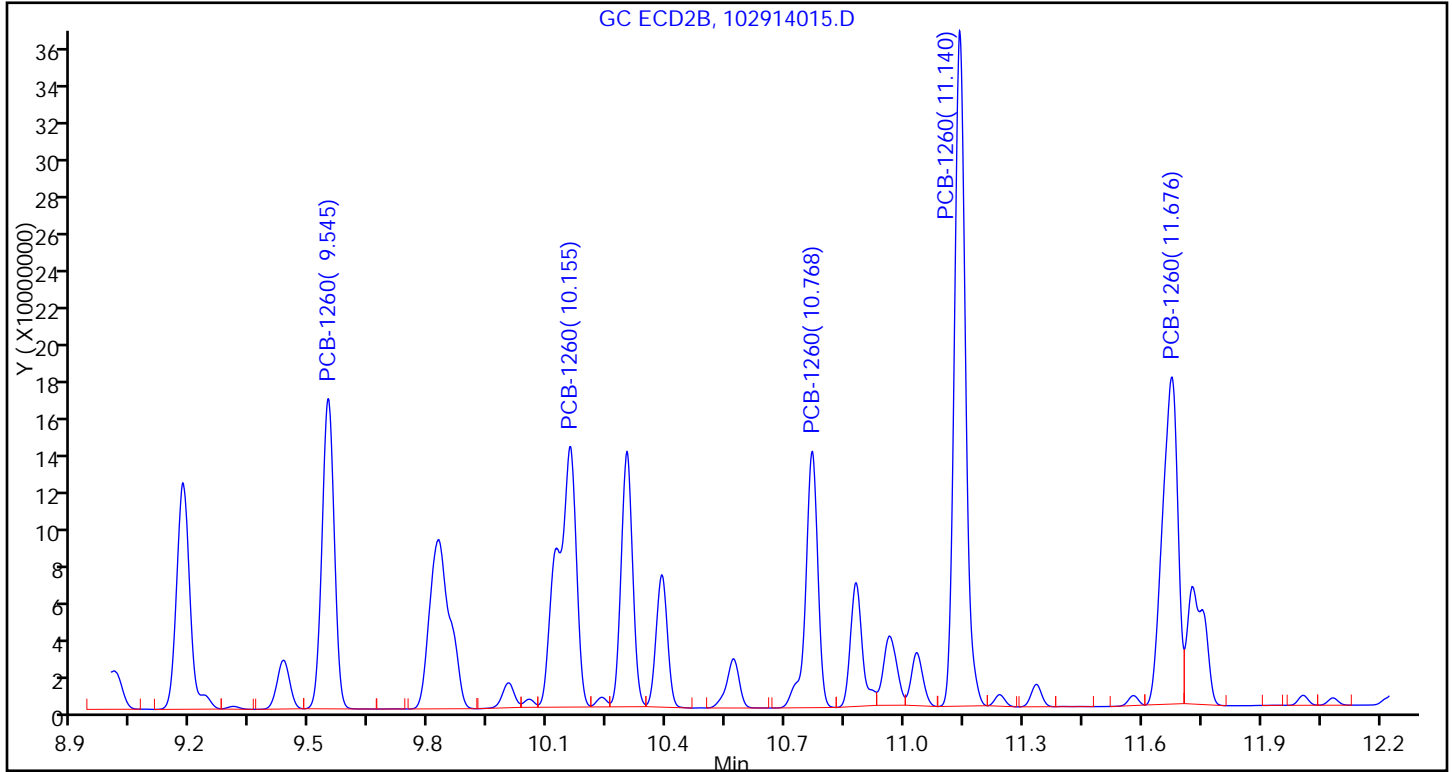
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

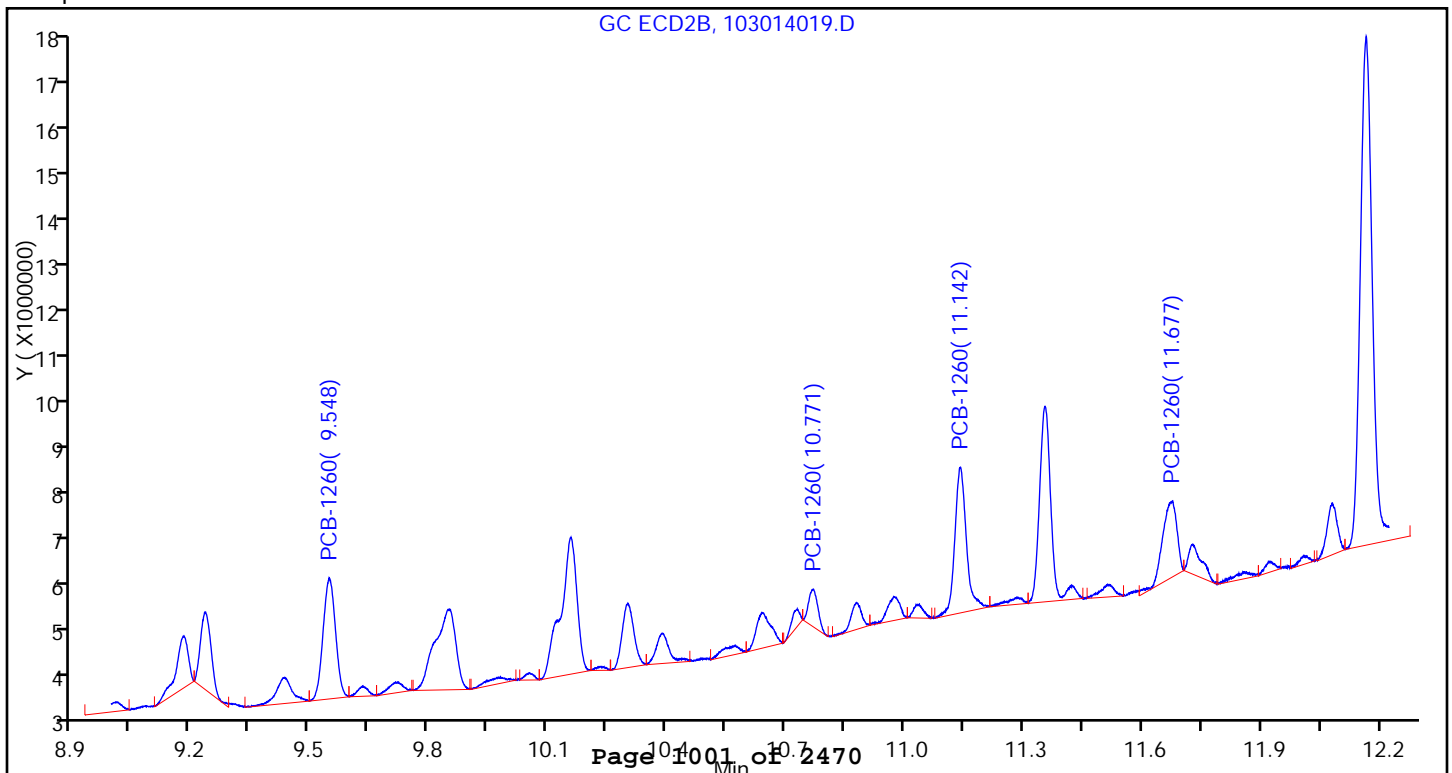
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6  
 Matrix: Sediment Lab File ID: 103014020.D  
 Analysis Method: 8082A Date Collected: 10/13/2014 12:10  
 Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
 Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 12:47  
 Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
 Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
 % Moisture: 72.9 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		15	2.3
11104-28-2	PCB-1221	ND		15	2.9
11141-16-5	PCB-1232	ND		15	2.6
53469-21-9	PCB-1242	ND		15	2.5
12672-29-6	PCB-1248	130		15	1.5
11097-69-1	PCB-1254	ND		15	2.2
11096-82-5	PCB-1260	84		15	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	332	X	20-150
877-09-8	Tetrachloro-m-xylene (Surr)	79		30-150



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014020.D  
 Lims ID: 180-37750-A-6-E Lab Sample ID: 180-37750-6  
 Client ID: SD-B02-FD  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 12:47:03 ALS Bottle#: 20 Worklist Smp#: 20  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-020  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 13:22:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.241	3.244	-0.003	2285249H	0.001614	
2	3.913	3.913	0.000	1638361H	0.001586	
RPD = 1.74						

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1		3.566			ND	
1		3.915				
1		4.416				
1		5.088				
1		5.715				
2		4.489			ND	
2		5.025				
2		5.708				
2		6.719				
2		7.997				

## 4 PCB-1016

1		3.567			ND	
1		3.917				
1		4.418				
1		4.572				
1		5.089				
2		5.025			ND	
2		5.707				
2		5.921				
2		6.093				
2		7.510				

## 6 PCB-1248

1	4.792	4.796	-0.004	3306460H	0.1010	
1	5.081	5.087	-0.006	2826034H	0.0725	
1	5.673	5.675	-0.002	3651607H	0.0846	
1	6.006	6.015	-0.009	6026184H	0.1916	
1	6.653	6.660	-0.007	4102414H	0.1994	
Average of Peak Amounts =					0.1298	
2	6.239	6.241	-0.002	1817368H	0.0838	
2	6.718	6.719	-0.001	1855843H	0.0702	
2	7.420	7.419	0.001	2989526H	0.1055	
2	7.513	7.515	-0.002	4393203H	0.1451	
2	8.010	7.999	0.011	2753310H	0.1203	
Average of Peak Amounts =					0.1050	

RPD = 21.14

## 7 PCB-1254

1		5.621			ND	
1		6.004				
1		6.658				
1		7.144				
1		8.057				
2		7.506			ND	
2		7.891				
2		8.820				
2		9.232				
2		10.157				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014020.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.056	8.069	-0.013	5210789H	0.1132	
1	8.760	8.773	-0.013	1141702H	0.0310	
1	9.326	9.332	-0.006	4412267H	0.0503	
1	9.807	9.810	-0.003	2885714H	0.0598	
1	10.785	10.786	-0.001	1737231H	0.0622	

Average of Peak Amounts = 0.0633

2	9.549	9.547	0.002	4859255H	0.1070	
2	0.000	10.158	-10.158	0H	0	
2	10.768	10.768	0.000	1437203H	0.0394	
2	11.143	11.142	0.001	5493162H	0.0598	
2	11.676	11.675	0.001	2840703H	0.0664	

Average of Peak Amounts = 0.0681

RPD = 7.34

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.477	11.476	0.001	3254611H	0.003716	
2	13.232	13.230	0.002	5477949H	0.006635	

RPD = 56.40

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014020.D

Injection Date: 30-Oct-2014 12:47:03

Instrument ID: CHGC16

Lims ID: 180-37750-A-6-E

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 402331

ALS Bottle#: 20

Worklist Smp#: 20

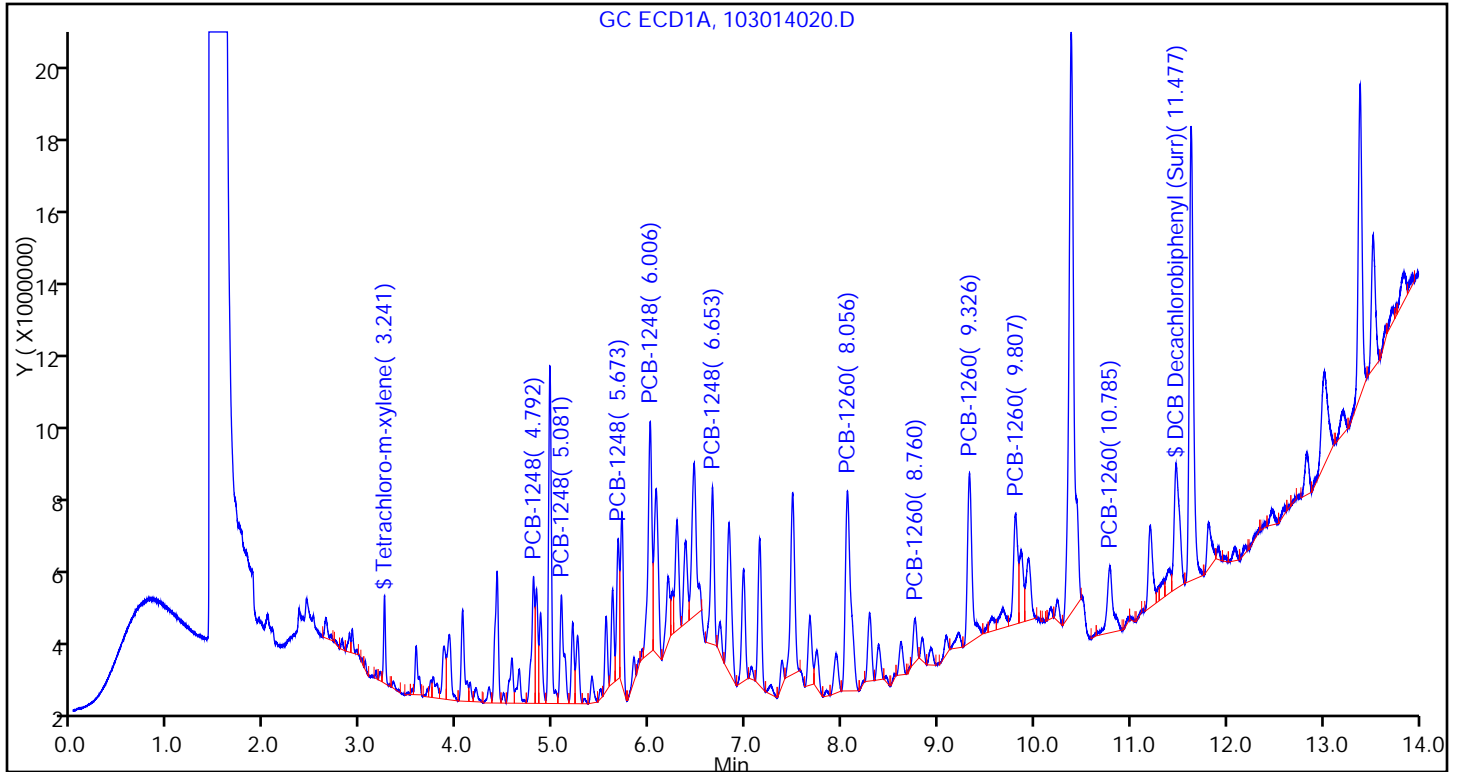
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

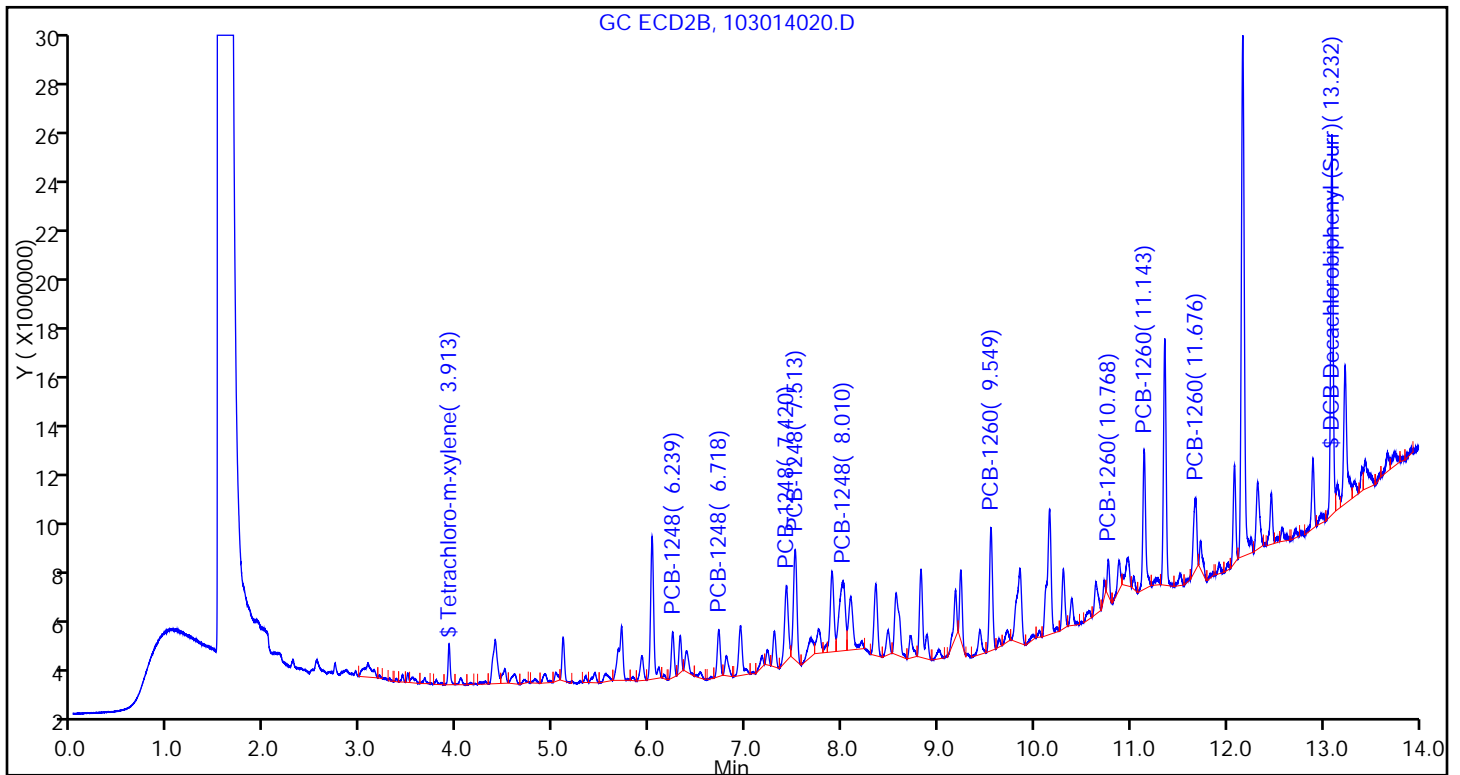
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:24:04

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014020.D

Injection Date: 30-Oct-2014 12:47:03

Instrument ID: CHGC16

Lims ID: 180-37750-A-6-E

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 402331

ALS Bottle#: 20

Worklist Smp#: 20

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

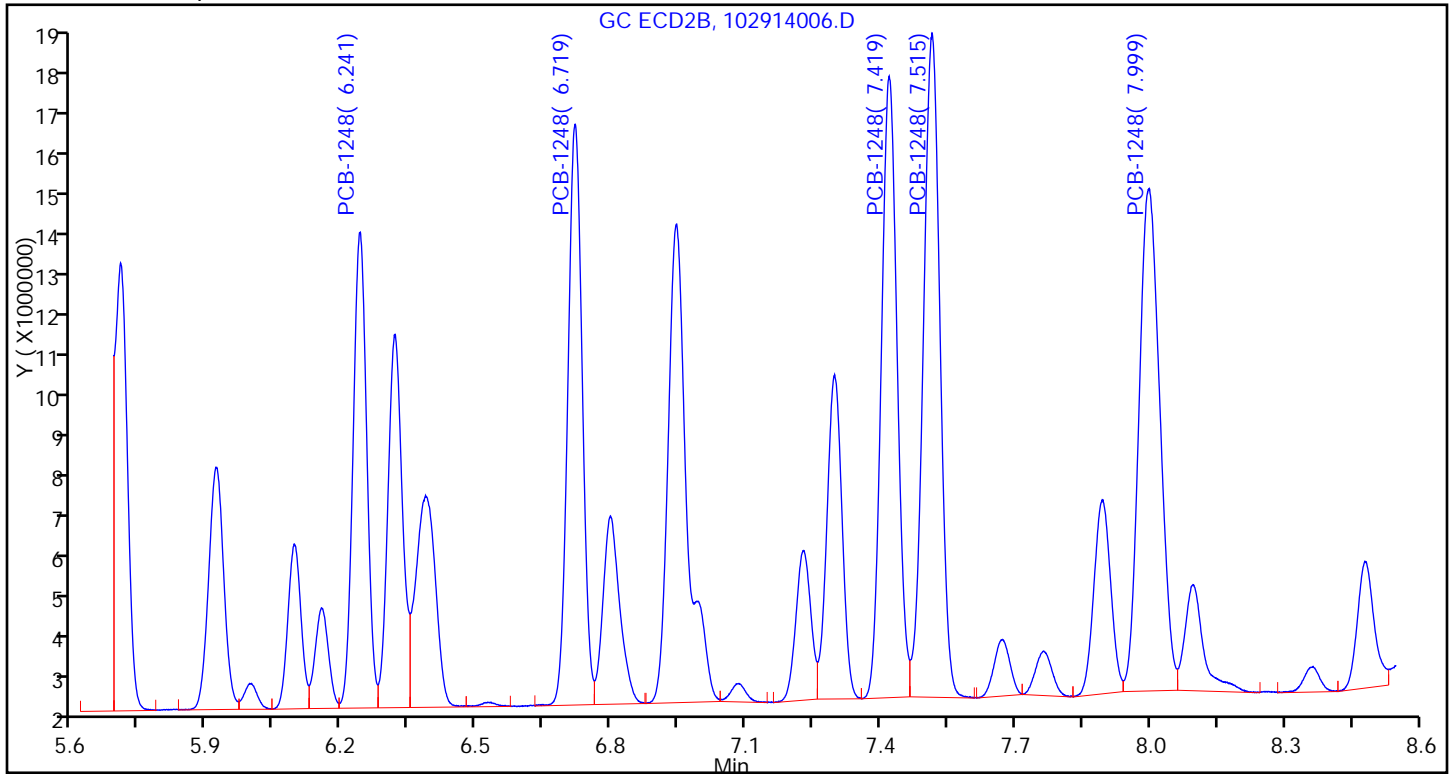
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

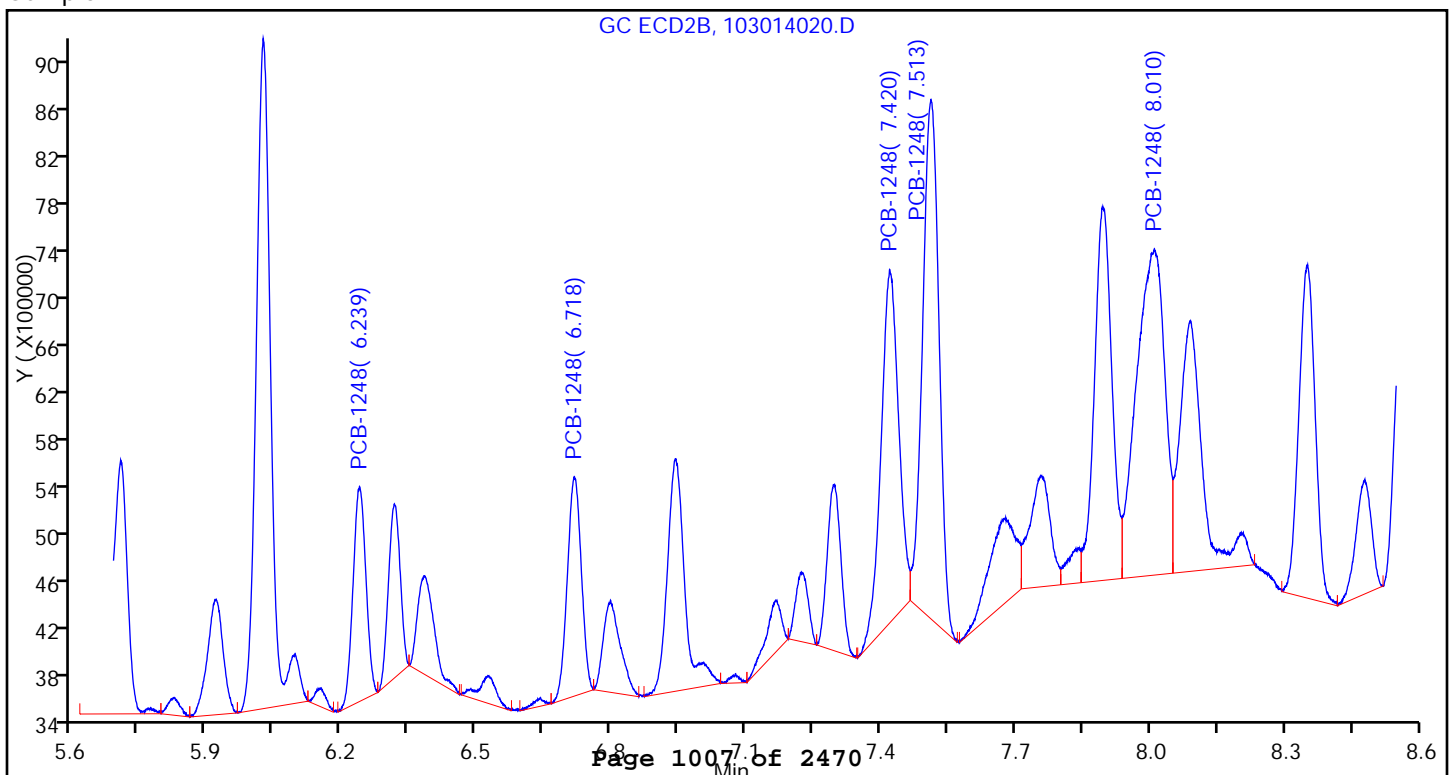
Detector: GC ECD2B

6 PCB-1248, CAS: 12672-29-6

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:04

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014020.D

Injection Date: 30-Oct-2014 12:47:03

Instrument ID: CHGC16

Lims ID: 180-37750-A-6-E

Lab Sample ID: 180-37750-6

Client ID: SD-B02-FD

Operator ID: 402331

ALS Bottle#: 20

Worklist Smp#: 20

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

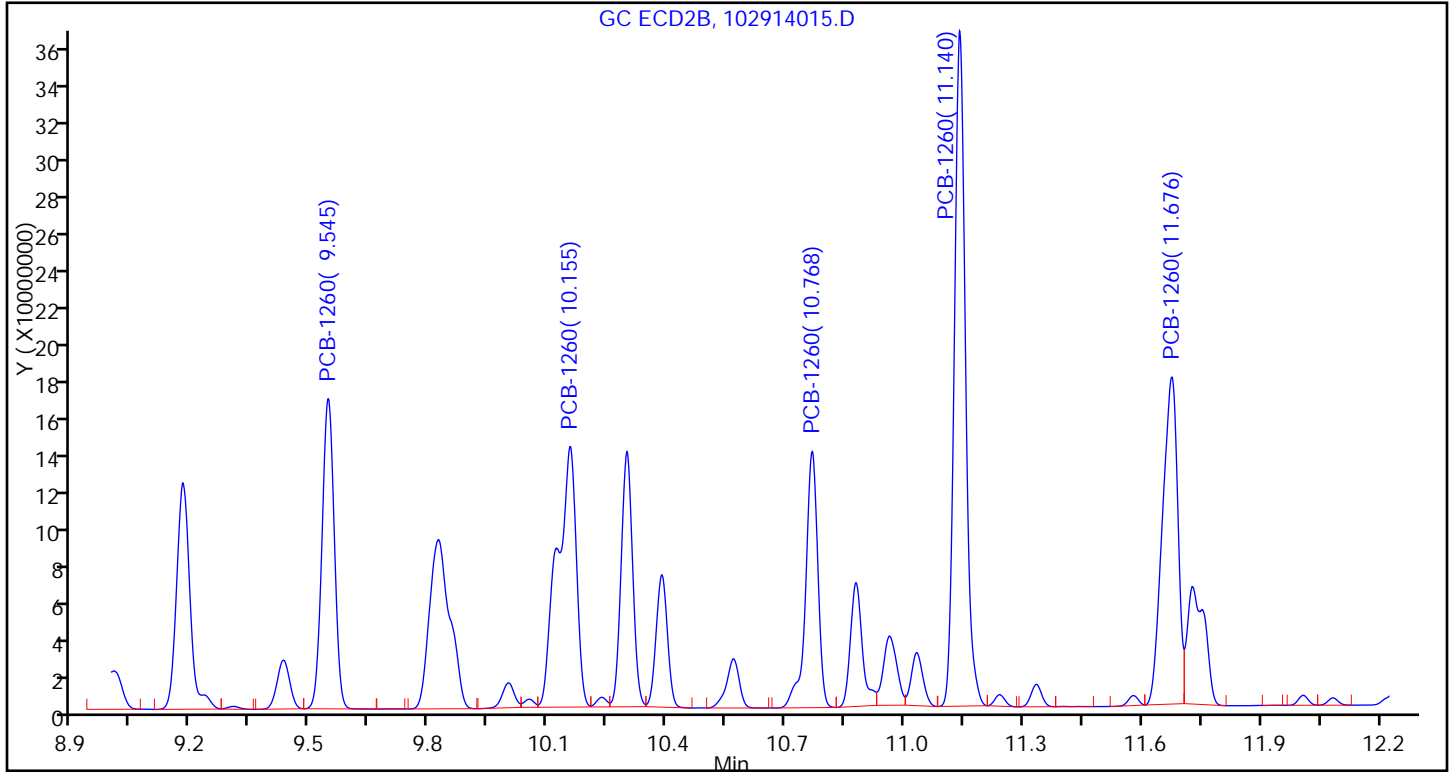
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

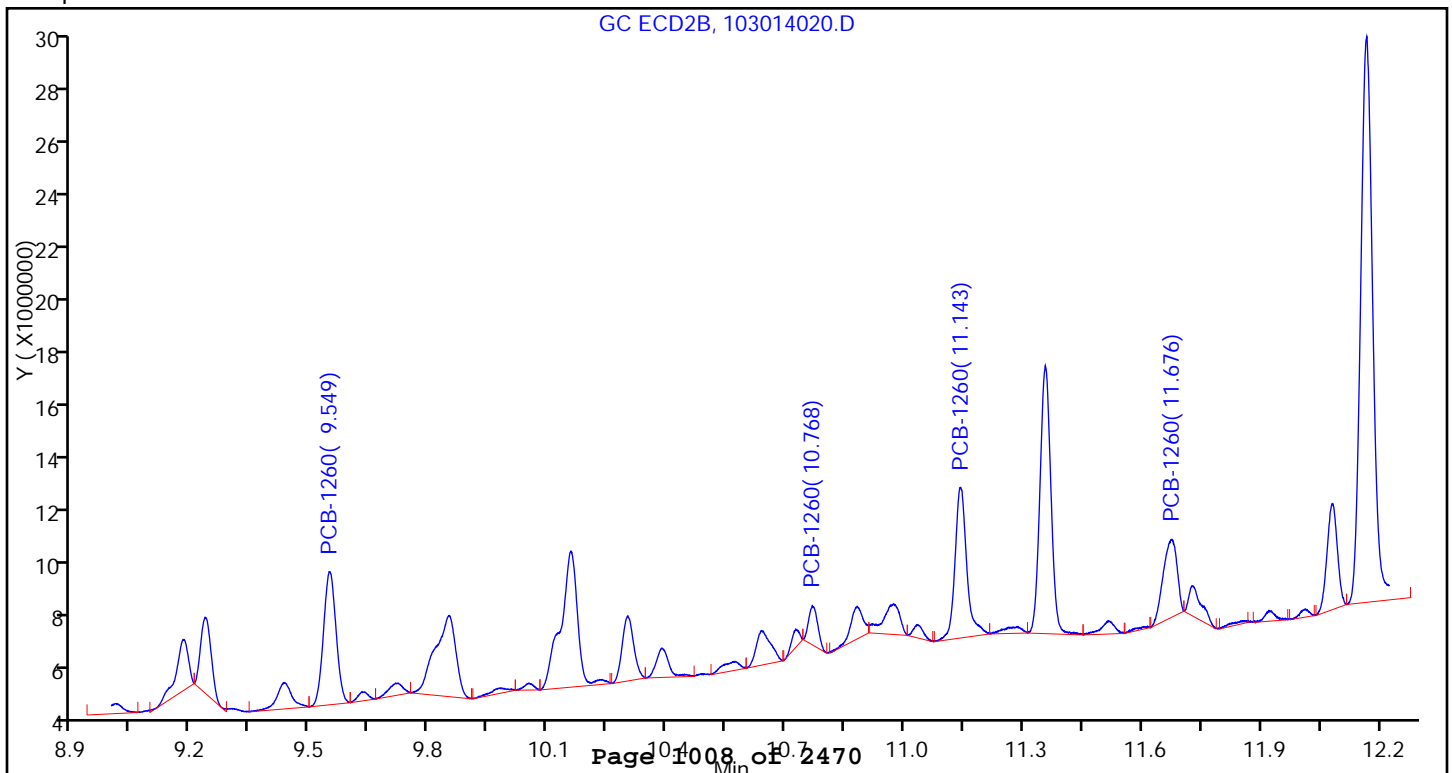
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7  
 Matrix: Sediment Lab File ID: 103014021.D  
 Analysis Method: 8082A Date Collected: 10/13/2014 15:30  
 Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
 Sample wt/vol: 30.1(g) Date Analyzed: 10/30/2014 13:06  
 Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
 Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
 % Moisture: 32.2 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		6.1	0.91
11104-28-2	PCB-1221	ND		6.1	1.2
11141-16-5	PCB-1232	ND		6.1	1.0
53469-21-9	PCB-1242	ND		6.1	1.0
12672-29-6	PCB-1248	ND		6.1	0.58
11097-69-1	PCB-1254	3.7	J	6.1	0.87
11096-82-5	PCB-1260	1.9	J	6.1	0.87

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	115		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	71		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D  
 Lims ID: 180-37750-A-7-E Lab Sample ID: 180-37750-7  
 Client ID: SD-C01  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 13:06:16 ALS Bottle#: 21 Worklist Smp#: 21  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-021  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 13:25:49

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
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## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.243	3.244	-0.001	1999099H	0.001412	
2	3.914	3.913	0.001	1460449H	0.001414	
RPD = 0.14						

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				



Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1	3.566				ND	
1	3.915					
1	4.416					
1	5.088					
1	5.715					
2	4.489				ND	
2	5.025					
2	5.708					
2	6.719					
2	7.997					

## 4 PCB-1016

1	3.567				ND	
1	3.917					
1	4.418					
1	4.572					
1	5.089					
2	5.025				ND	
2	5.707					
2	5.921					
2	6.093					
2	7.510					

## 6 PCB-1248

1	4.796				ND	
1	5.087					
1	5.675					
1	6.015					
1	6.660					
2	6.241				ND	
2	6.719					
2	7.419					
2	7.515					
2	7.999					

## 7 PCB-1254

1	5.621	5.621	0.000	166371H	0.005393	
1	6.037	6.004	0.033	428915H	0.009562	
1	6.661	6.658	0.003	253504H	0.004395	
1	7.152	7.144	0.008	214592H	0.005041	
1	8.069	8.057	0.012	282887H	0.006710	
Average of Peak Amounts =					0.006220	
2	7.511	7.506	0.005	251279H	0.0103	
2	7.899	7.891	0.008	195762H	0.007103	
2	8.821	8.820	0.001	219421H	0.005289	
2	9.236	9.232	0.004	228154H	0.006992	
2	10.156	10.157	-0.001	311707H	0.008382	
Average of Peak Amounts =					0.007615	

RPD = 20.16

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.069	8.069	0.000	282887H	0.006146	
1	8.758	8.773	-0.015	23038H	0.000626	
1	9.330	9.332	-0.002	272651H	0.003107	
1	9.808	9.810	-0.002	179109H	0.003711	
1	10.786	10.786	0.000	55134H	0.001975	

Average of Peak Amounts = 0.003113

2	9.550	9.547	0.003	267219H	0.005881	
2	0.000	10.158	-10.158	0H	0	
2	10.726	10.768	-0.042	66893H	0.001833	
2	11.143	11.142	0.001	283506H	0.003085	
2	11.676	11.675	0.001	204149H	0.004772	

Average of Peak Amounts = 0.003893

RPD = 22.26

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.474	11.476	-0.002	1537377H	0.001755	
2	13.230	13.230	0.000	1905467H	0.002308	

RPD = 27.20

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D

Injection Date: 30-Oct-2014 13:06:16

Instrument ID: CHGC16

Lims ID: 180-37750-A-7-E

Lab Sample ID: 180-37750-7

Client ID: SD-C01

Operator ID: 402331

ALS Bottle#: 21

Worklist Smp#: 21

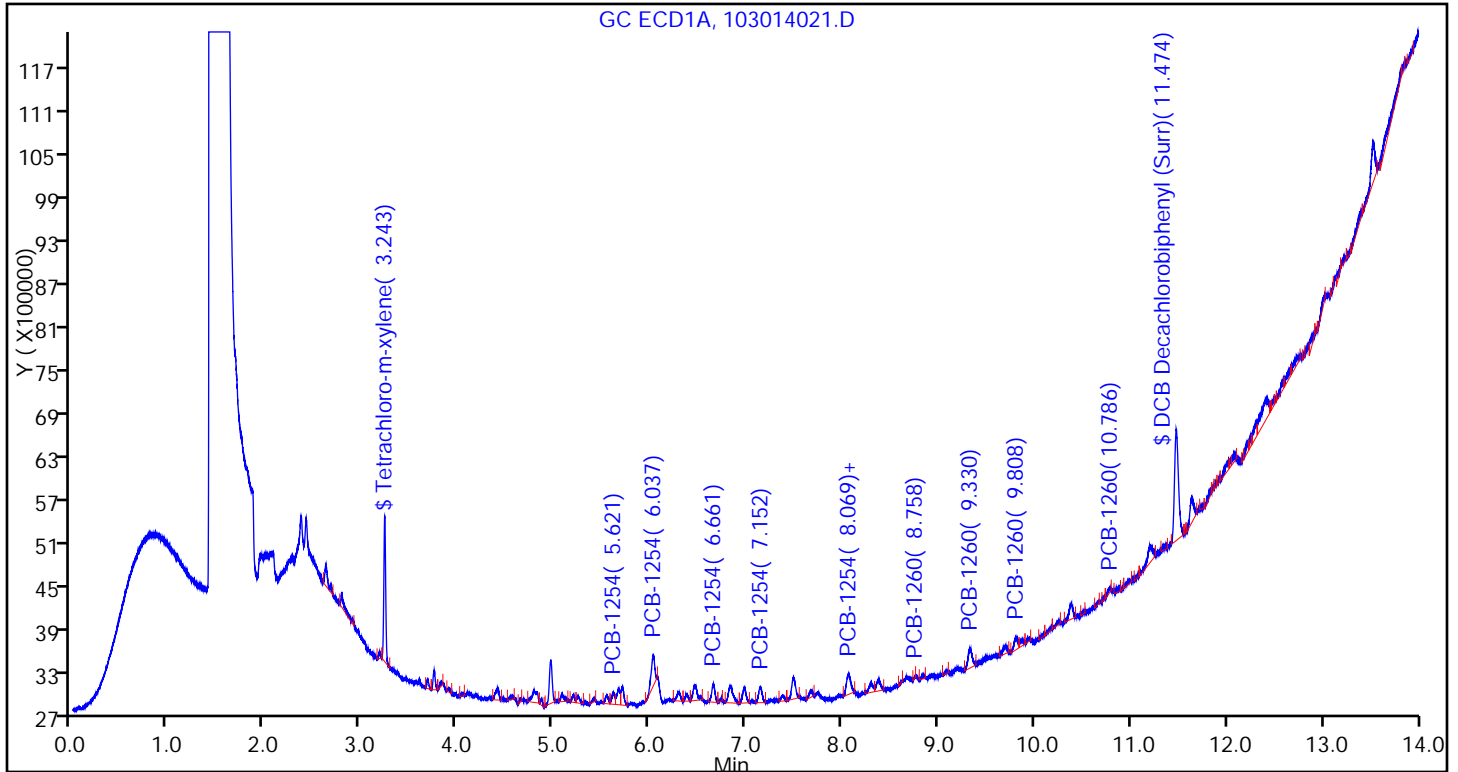
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

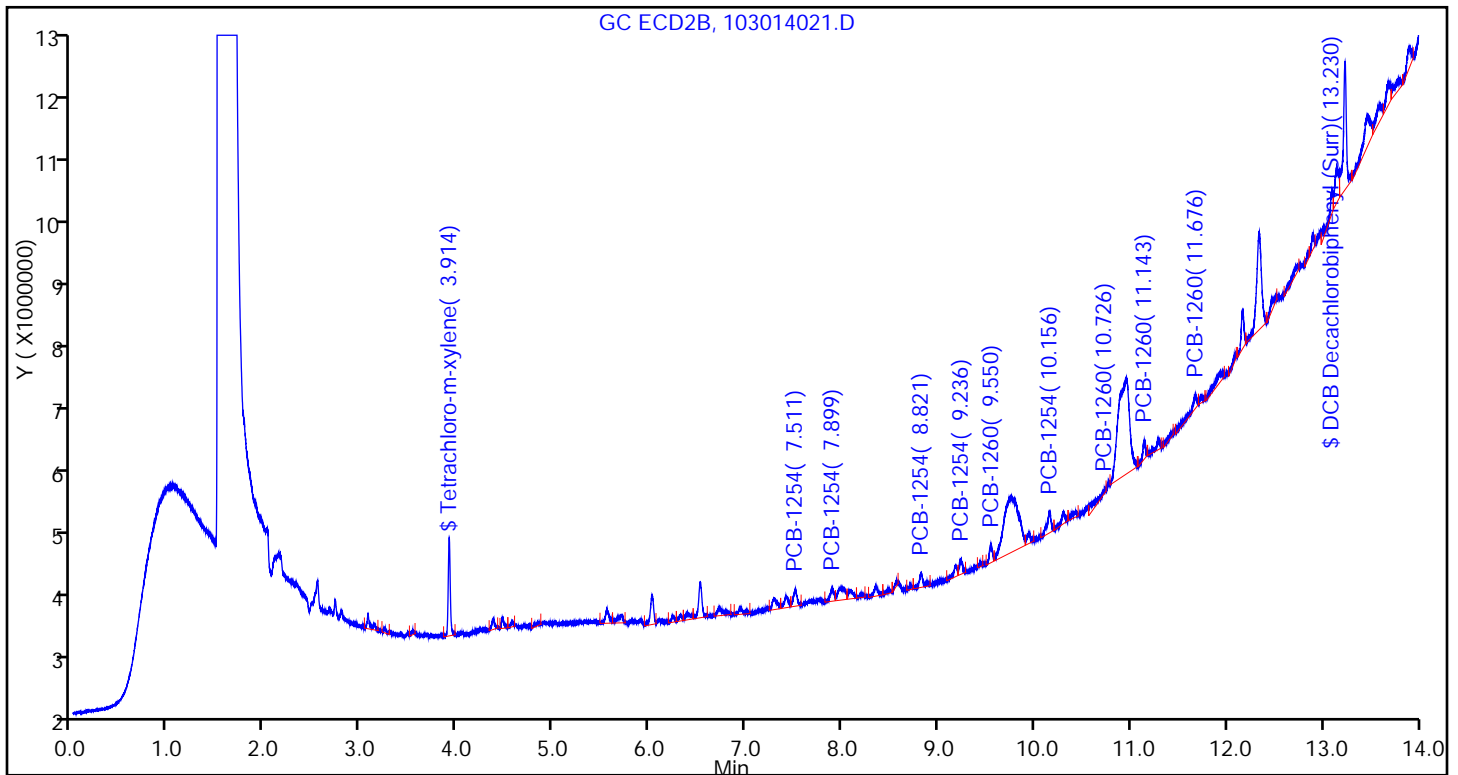
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:24:00

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D

Injection Date: 30-Oct-2014 13:06:16

Instrument ID: CHGC16

Lims ID: 180-37750-A-7-E

Lab Sample ID: 180-37750-7

Client ID: SD-C01

Operator ID: 402331

ALS Bottle#: 21

Worklist Smp#: 21

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

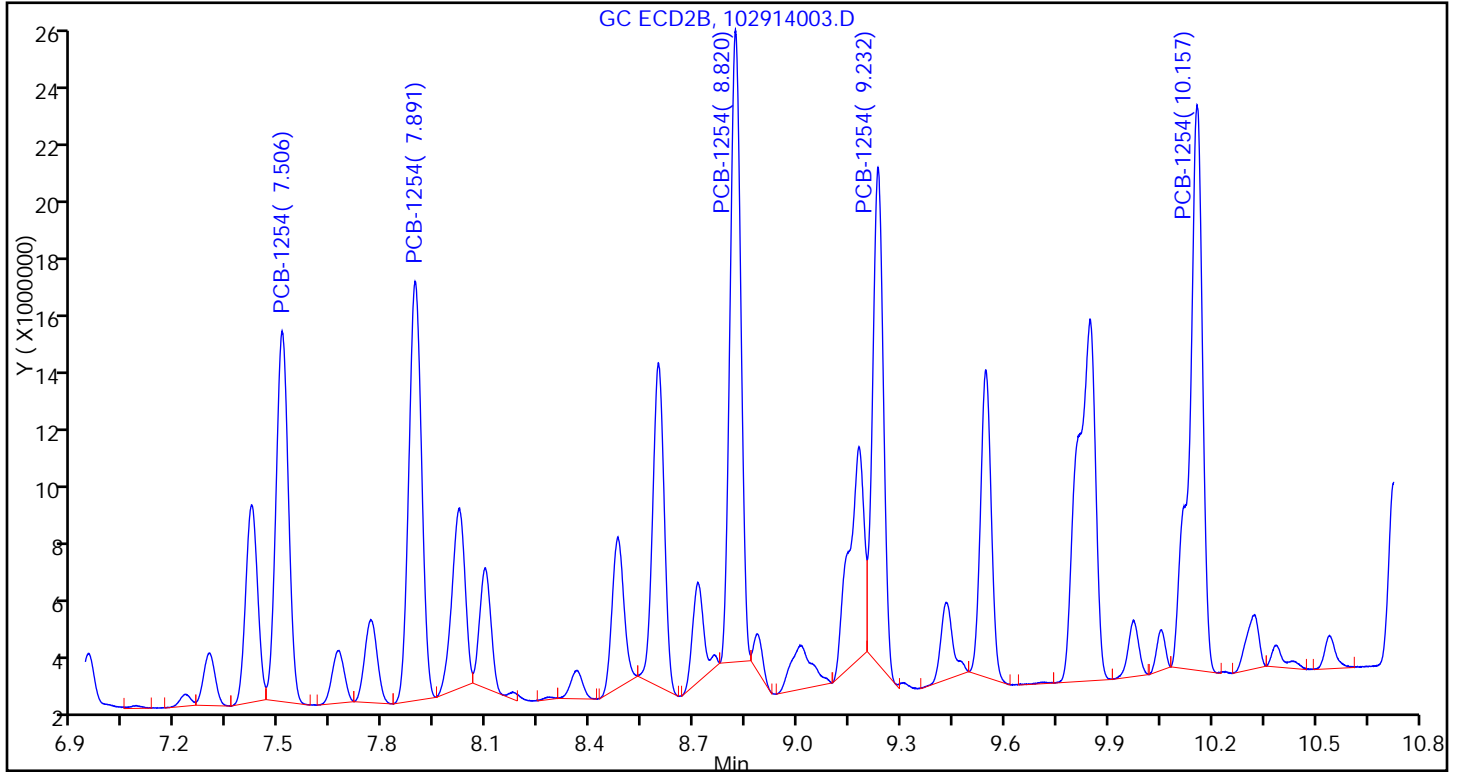
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

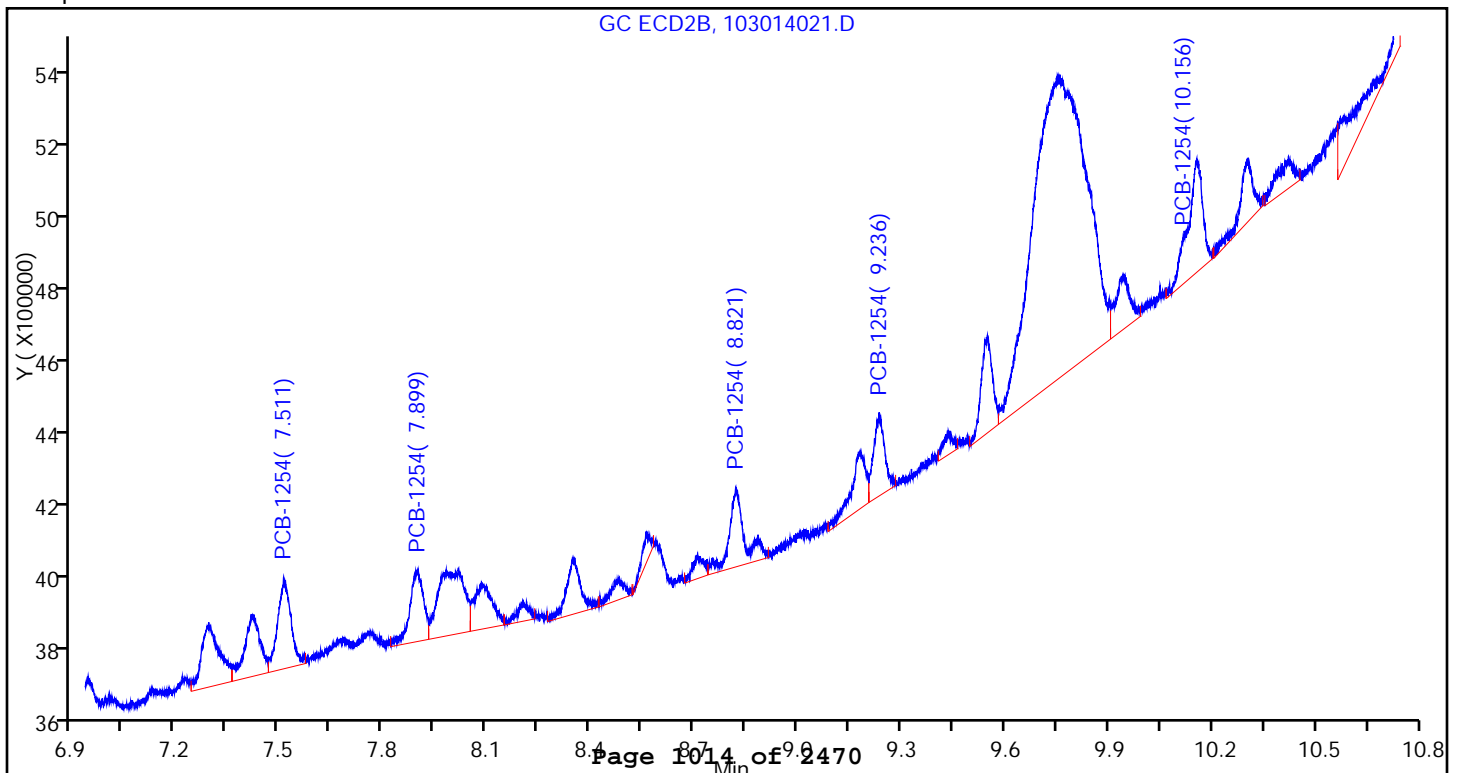
Detector GC ECD2B

7 PCB-1254, CAS: 11097-69-1

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:01

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014021.D

Injection Date: 30-Oct-2014 13:06:16

Instrument ID: CHGC16

Lims ID: 180-37750-A-7-E

Lab Sample ID: 180-37750-7

Client ID: SD-C01

Operator ID: 402331

ALS Bottle#: 21

Worklist Smp#: 21

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

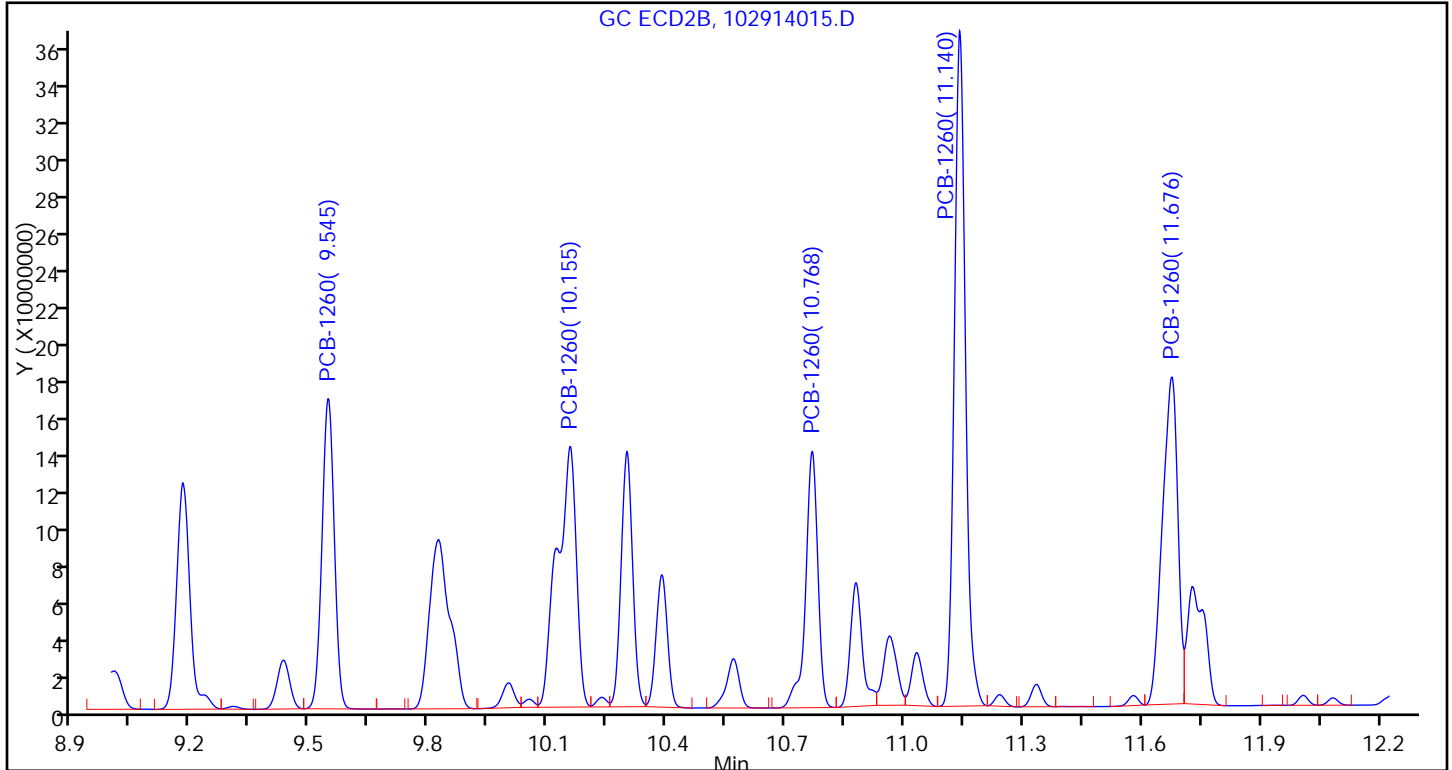
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

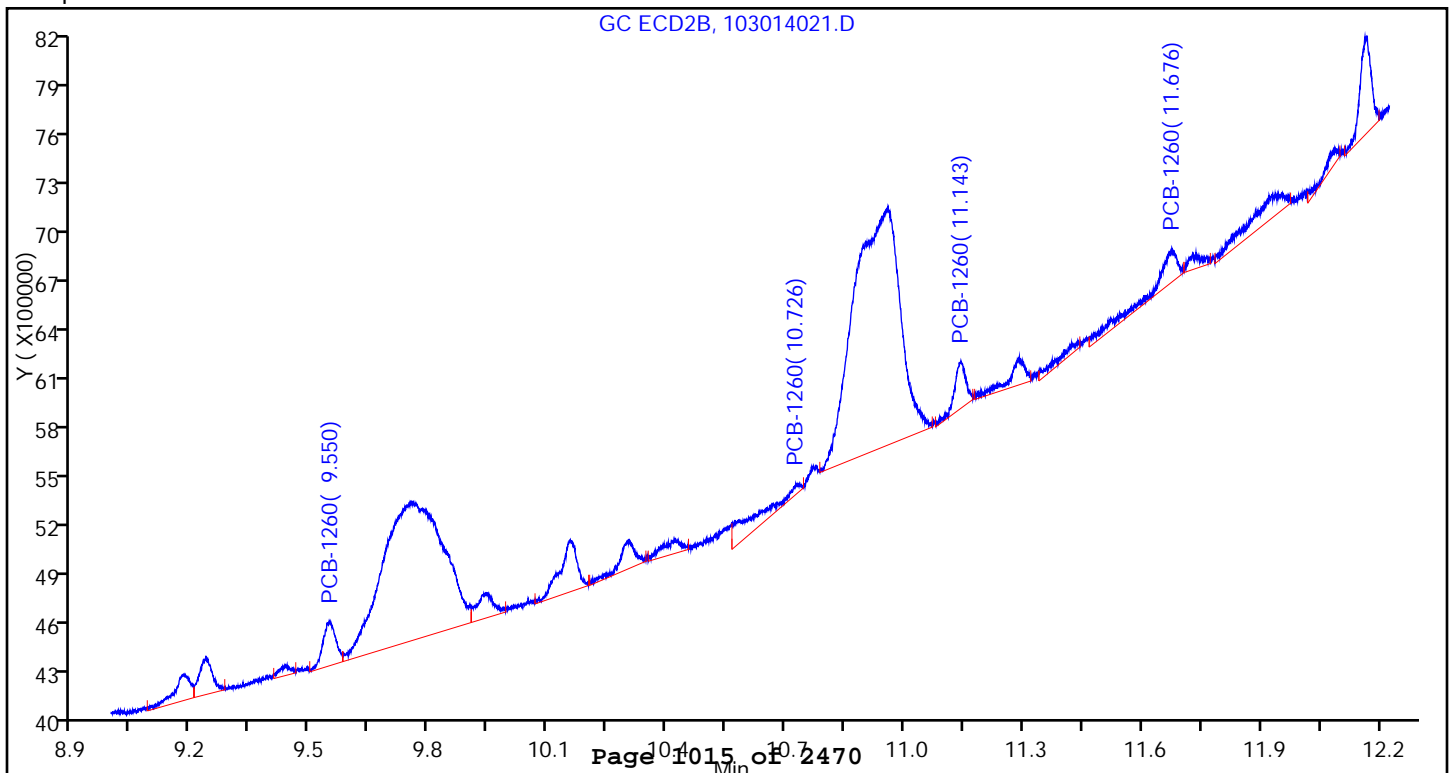
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: SD-C02 Lab Sample ID: 180-37750-8  
 Matrix: Sediment Lab File ID: 103014022.D  
 Analysis Method: 8082A Date Collected: 10/13/2014 14:50  
 Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
 Sample wt/vol: 30.1(g) Date Analyzed: 10/30/2014 13:25  
 Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
 Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
 % Moisture: 42.1 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		7.2	1.1
11104-28-2	PCB-1221	ND		7.2	1.4
11141-16-5	PCB-1232	ND		7.2	1.2
53469-21-9	PCB-1242	ND		7.2	1.2
12672-29-6	PCB-1248	26		7.2	0.68
11097-69-1	PCB-1254	ND		7.2	1.0
11096-82-5	PCB-1260	21		7.2	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	207	X	20-150
877-09-8	Tetrachloro-m-xylene (Surr)	90		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D  
 Lims ID: 180-37750-A-8-E Lab Sample ID: 180-37750-8  
 Client ID: SD-C02  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 13:25:32 ALS Bottle#: 22 Worklist Smp#: 22  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-022  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 13:49:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.242	3.244	-0.002	2397286H	0.001693	
2	3.912	3.913	-0.001	1860019H	0.001801	
RPD = 6.16						

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1		3.566			ND	
1		3.915				
1		4.416				
1		5.088				
1		5.715				
2		4.489			ND	
2		5.025				
2		5.708				
2		6.719				
2		7.997				

## 4 PCB-1016

1		3.567			ND	
1		3.917				
1		4.418				
1		4.572				
1		5.089				
2		5.025			ND	
2		5.707				
2		5.921				
2		6.093				
2		7.510				

## 6 PCB-1248

1	4.793	4.796	-0.003	1362235H	0.0416	
1	5.086	5.087	-0.001	1055055H	0.0271	
1	5.673	5.675	-0.002	1427995H	0.0331	
1	6.011	6.015	-0.004	2458852H	0.0782	
1	6.661	6.660	0.001	1986836H	0.0966	
Average of Peak Amounts =					0.0553	
2	6.237	6.241	-0.004	784081H	0.0362	
2	6.717	6.719	-0.002	802415H	0.0303	
2	7.420	7.419	0.001	1259211H	0.0445	
2	7.511	7.515	-0.004	1893653H	0.0625	
2	8.008	7.999	0.009	1230020H	0.0538	

Average of Peak Amounts = 0.0455

RPD = 19.55

## 7 PCB-1254

1		5.621			ND	
1		6.004				
1		6.658				
1		7.144				
1		8.057				
2		7.506			ND	
2		7.891				
2		8.820				
2		9.232				
2		10.157				



Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 8 PCB-1260

1	8.064	8.069	-0.005	2374254H	0.0516	
1	8.765	8.773	-0.008	554560H	0.0151	
1	9.327	9.332	-0.005	1831090H	0.0209	
1	9.807	9.810	-0.003	1176766H	0.0244	
1	10.785	10.786	-0.001	644894H	0.0231	

Average of Peak Amounts = 0.0270

2	9.545	9.547	-0.002	2110009H	0.0464	
2	10.157	10.158	-0.001	2280238H	0.0619	
2	10.767	10.768	-0.001	777123H	0.0213	
2	11.141	11.142	-0.001	2278844H	0.0248	
2	11.671	11.675	-0.004	1145977H	0.0268	

Average of Peak Amounts = 0.0362

RPD = 29.24

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.475	11.476	-0.001	2584235H	0.002951	
2	13.231	13.230	0.001	3422159H	0.004145	

RPD = 33.67

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D

Injection Date: 30-Oct-2014 13:25:32

Instrument ID: CHGC16

Lims ID: 180-37750-A-8-E

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 402331

ALS Bottle#: 22

Worklist Smp#: 22

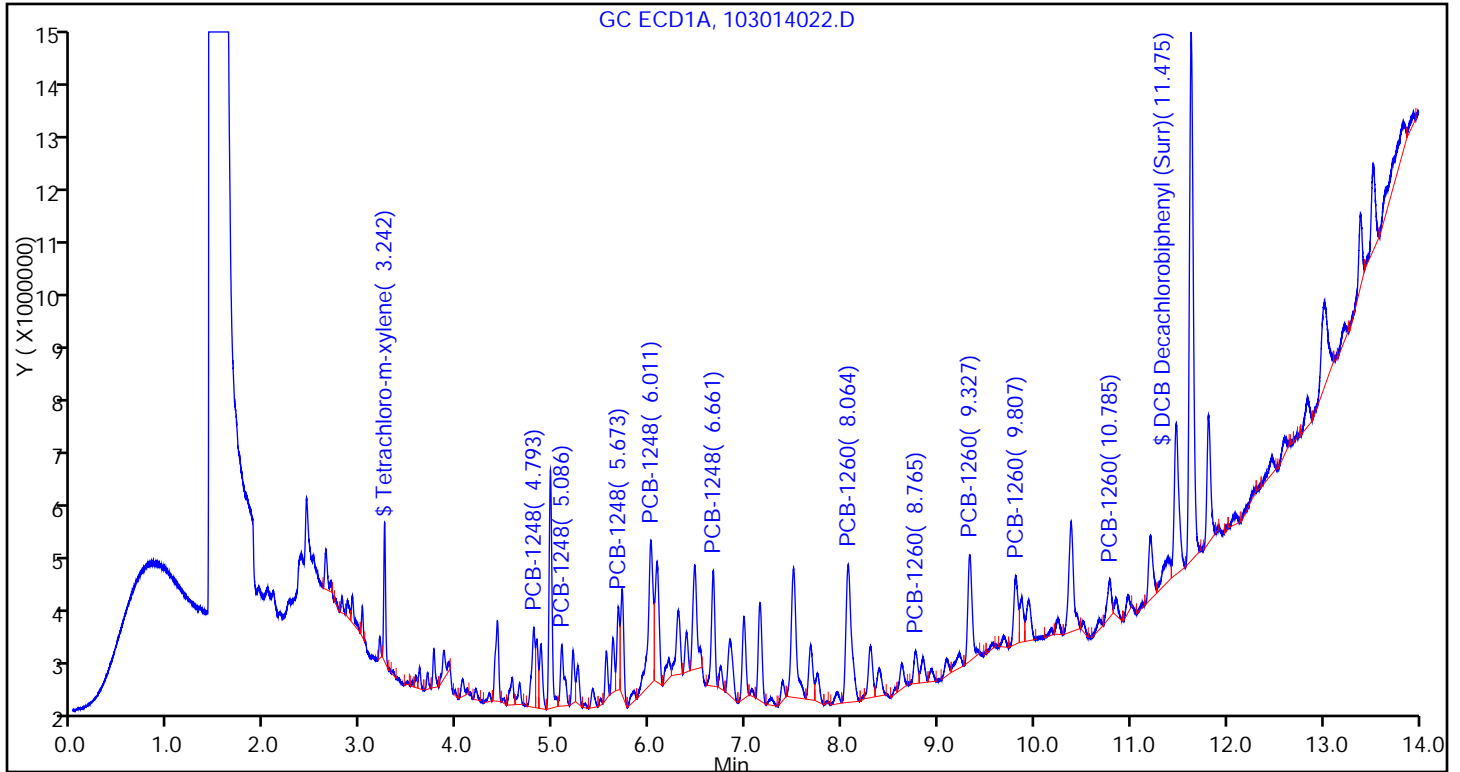
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

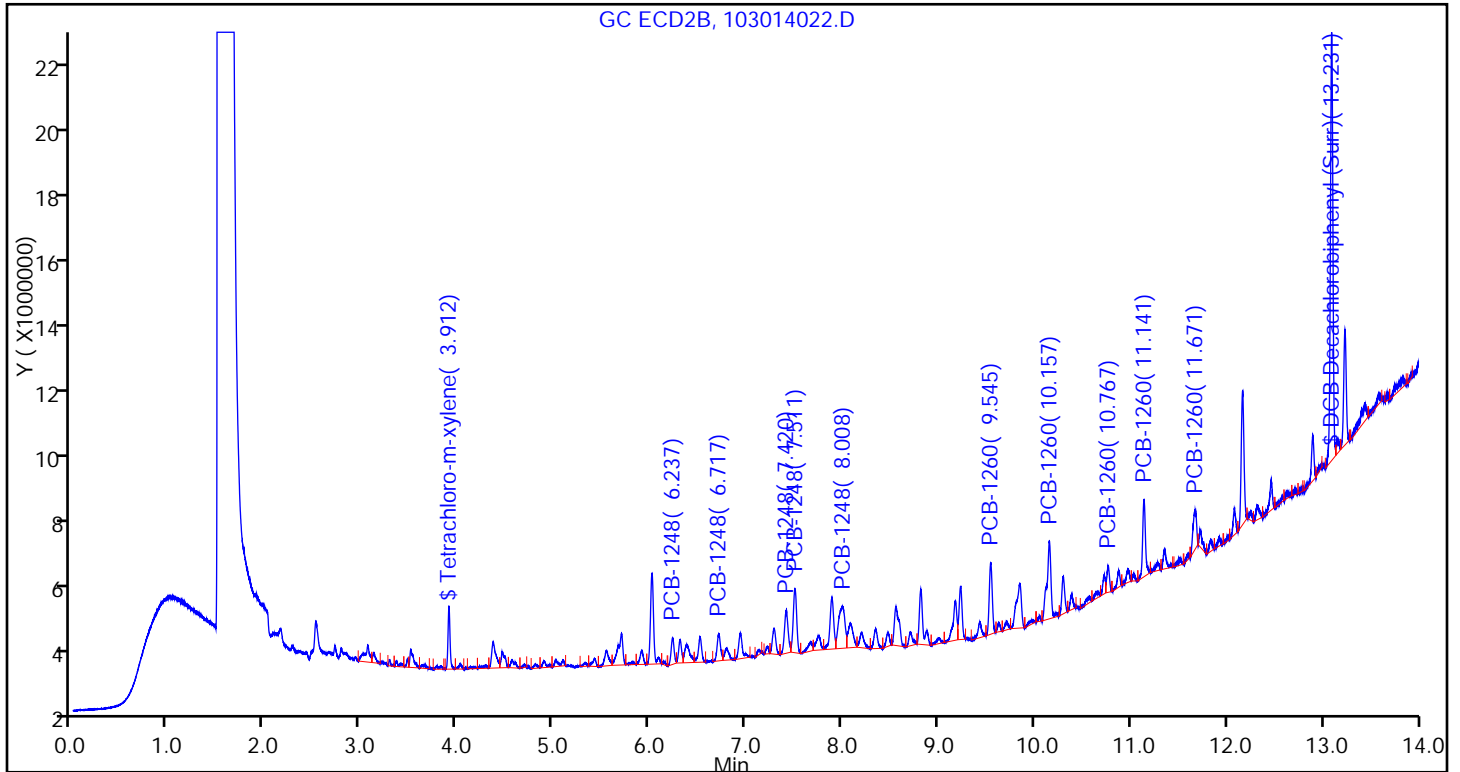
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:23:57

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D

Injection Date: 30-Oct-2014 13:25:32

Instrument ID: CHGC16

Lims ID: 180-37750-A-8-E

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 402331

ALS Bottle#: 22

Worklist Smp#: 22

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

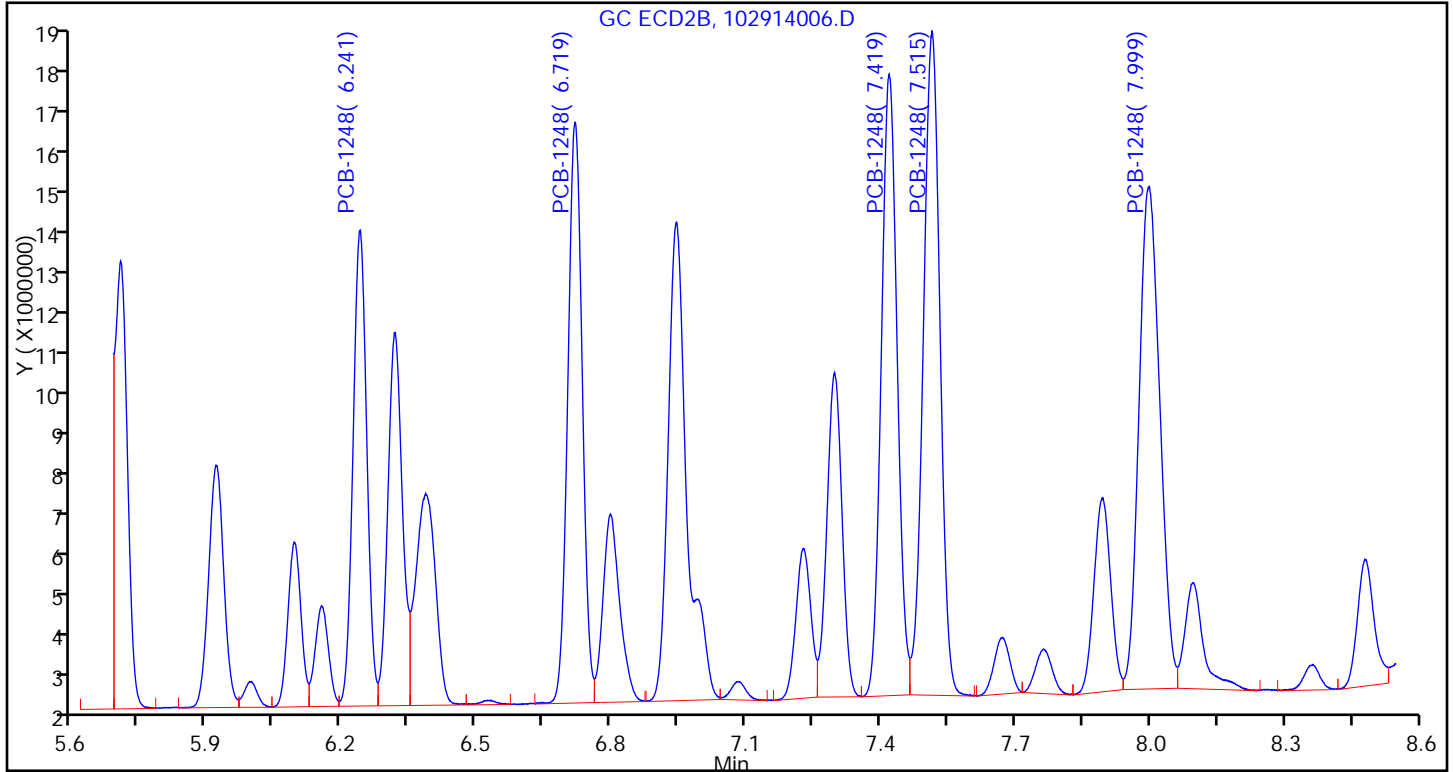
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

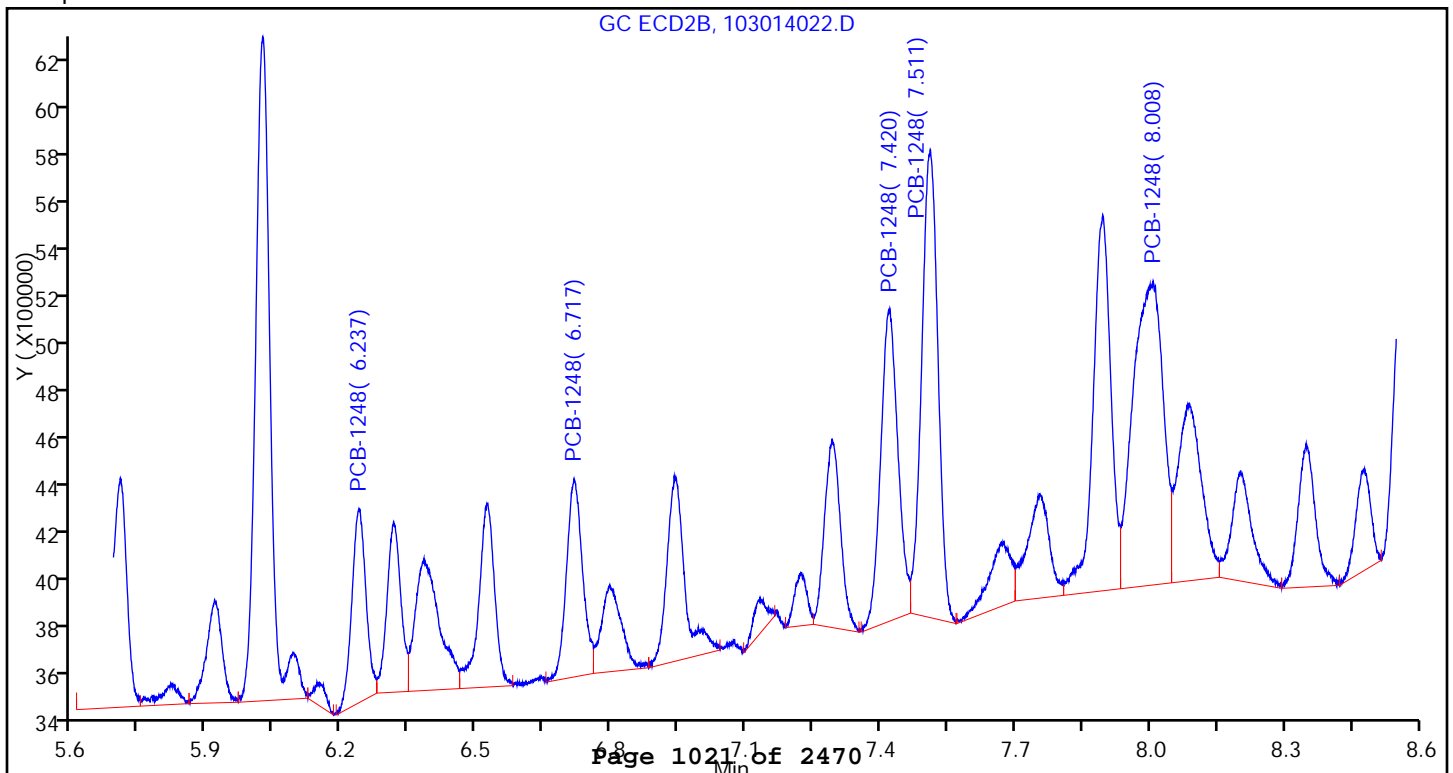
Detector: GC ECD2B

6 PCB-1248, CAS: 12672-29-6

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:23:57

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014022.D

Injection Date: 30-Oct-2014 13:25:32

Instrument ID: CHGC16

Lims ID: 180-37750-A-8-E

Lab Sample ID: 180-37750-8

Client ID: SD-C02

Operator ID: 402331

ALS Bottle#: 22

Worklist Smp#: 22

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

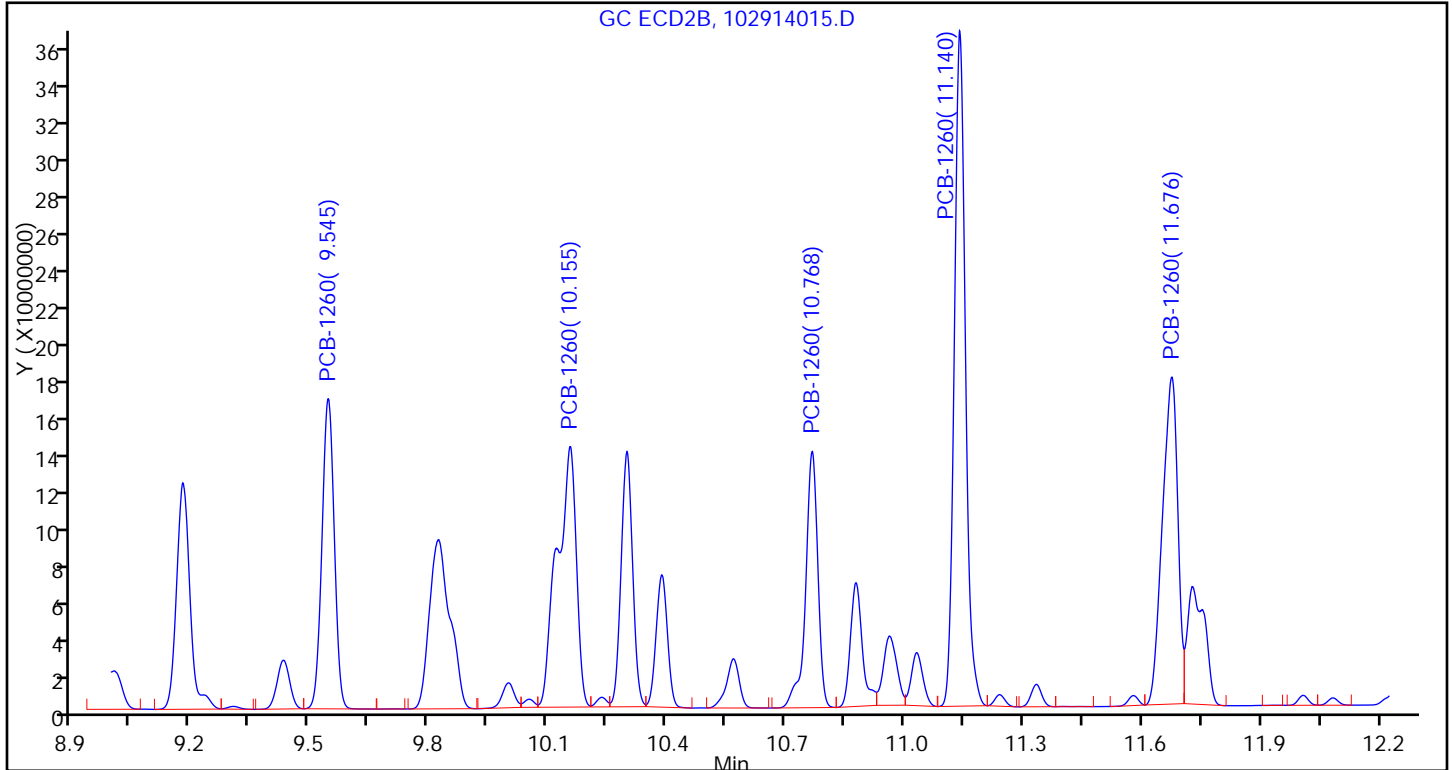
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

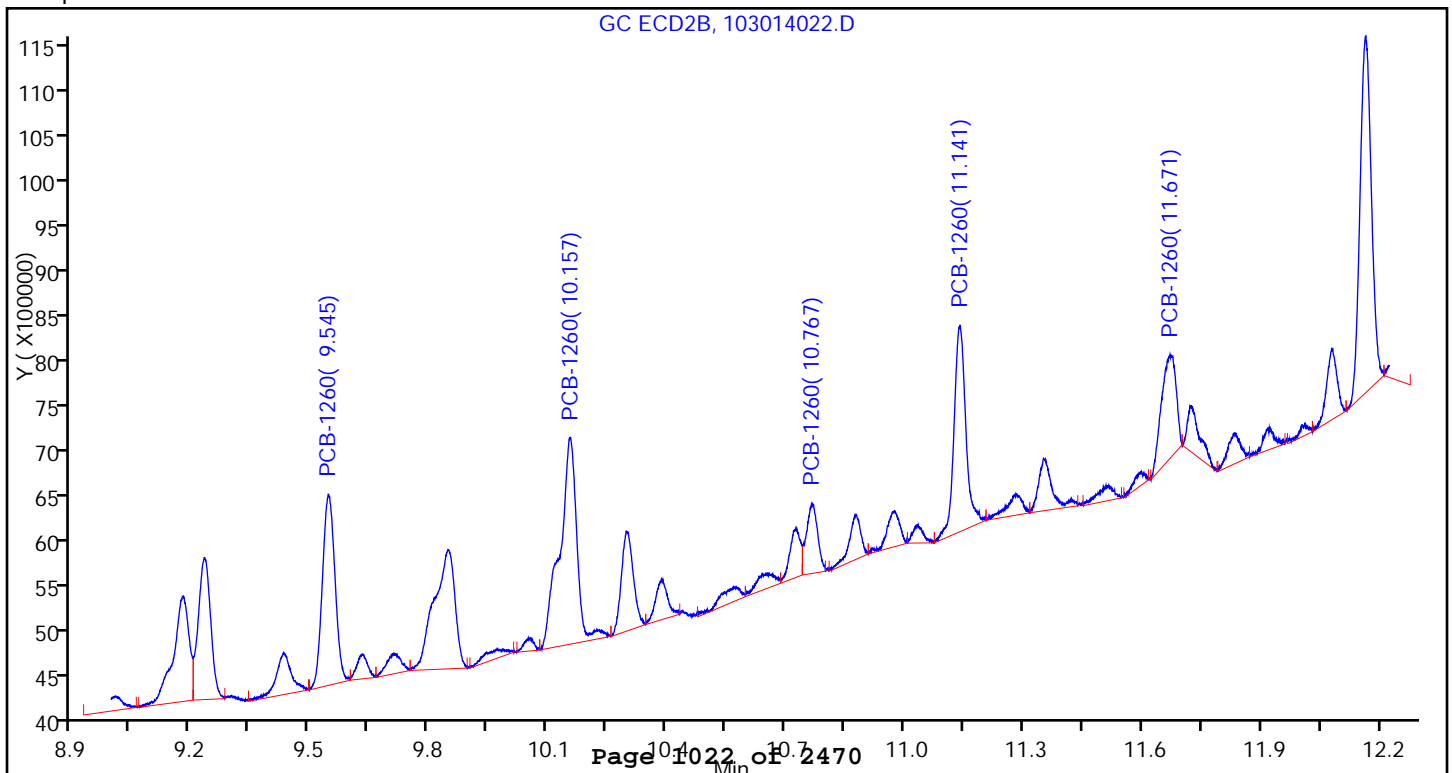
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: SD-C03 Lab Sample ID: 180-37750-9  
 Matrix: Sediment Lab File ID: 103014023.D  
 Analysis Method: 8082A Date Collected: 10/13/2014 14:30  
 Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
 Sample wt/vol: 30.1(g) Date Analyzed: 10/30/2014 13:44  
 Con. Extract Vol.: 1.0(mL) Dilution Factor: 10  
 Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
 % Moisture: 76.6 GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		18	2.6
11104-28-2	PCB-1221	ND		18	3.4
11141-16-5	PCB-1232	ND		18	3.0
53469-21-9	PCB-1242	ND		18	2.9
12672-29-6	PCB-1248	140		18	1.7
11097-69-1	PCB-1254	ND		18	2.5
11096-82-5	PCB-1260	88		18	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	260	X	20-150
877-09-8	Tetrachloro-m-xylene (Surr)	69		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D  
 Lims ID: 180-37750-A-9-E Lab Sample ID: 180-37750-9  
 Client ID: SD-C03  
 Sample Type: Client  
 Inject. Date: 30-Oct-2014 13:44:28 ALS Bottle#: 23 Worklist Smp#: 23  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-023  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 31-Oct-2014 03:58:05

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 2 PCB-1221

1		2.799			ND	
1		3.566				
1		3.391				
2		3.414			ND	
2		4.236				
2		4.487				

## \$ 1 Tetrachloro-m-xylene

1	3.242	3.244	-0.002	1960954H	0.001385	
2	3.912	3.913	-0.001	1430401H	0.001385	

RPD = 0.01

## 5 PCB-1232

1		3.391			ND	
1		3.566				
1		3.916				
1		4.414				
1		4.826				
2		4.235			ND	
2		4.487				
2		5.023				
2		5.706				
2		5.920				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 3 PCB-1242

1		3.566			ND	
1		3.915				
1		4.416				
1		5.088				
1		5.715				
2		4.489			ND	
2		5.025				
2		5.708				
2		6.719				
2		7.997				

## 4 PCB-1016

1		3.567			ND	
1		3.917				
1		4.418				
1		4.572				
1		5.089				
2		5.025			ND	
2		5.707				
2		5.921				
2		6.093				
2		7.510				

## 6 PCB-1248

1	4.792	4.796	-0.004	3193691H	0.0976	
1	5.083	5.087	-0.004	2766014H	0.0709	
1	5.672	5.675	-0.003	3920465H	0.0908	
1	6.005	6.015	-0.010	6368280H	0.2025	
1	6.656	6.660	-0.004	4990101H	0.2426	
Average of Peak Amounts =					0.1409	
2	6.239	6.241	-0.002	1810310H	0.0835	
2	6.719	6.719	0.000	1848043H	0.0699	
2	7.420	7.419	0.001	2781298H	0.0982	
2	7.511	7.515	-0.004	4137195H	0.1366	
2	8.004	7.999	0.005	2575506H	0.1126	

Average of Peak Amounts = 0.1002

RPD = 33.78

## 7 PCB-1254

1		5.621			ND	
1		6.004				
1		6.658				
1		7.144				
1		8.057				
2		7.506			ND	
2		7.891				
2		8.820				
2		9.232				
2		10.157				

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	-----------------	-------

## 8 PCB-1260

1	8.061	8.069	-0.008	4644140H	0.1009	
1	8.762	8.773	-0.011	1297324H	0.0352	
1	9.329	9.332	-0.003	3742725H	0.0426	
1	9.805	9.810	-0.005	2608682H	0.0540	
1	10.784	10.786	-0.002	1324306H	0.0474	

Average of Peak Amounts = 0.0561

2	9.546	9.547	-0.001	4103886H	0.0903	
2	0.000	10.158	-10.158	0H	0	
2	10.769	10.768	0.001	1470380H	0.0403	
2	11.142	11.142	0.000	5154014H	0.0561	
2	11.677	11.675	0.002	2607968H	0.0610	

Average of Peak Amounts = 0.0619

RPD = 9.93

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.483	11.476	0.007	2349581H	0.002683	
2	13.232	13.230	0.002	4296844H	0.005205	

RPD = 63.95

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D

Injection Date: 30-Oct-2014 13:44:28

Instrument ID: CHGC16

Lims ID: 180-37750-A-9-E

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 402331

ALS Bottle#: 23

Worklist Smp#: 23

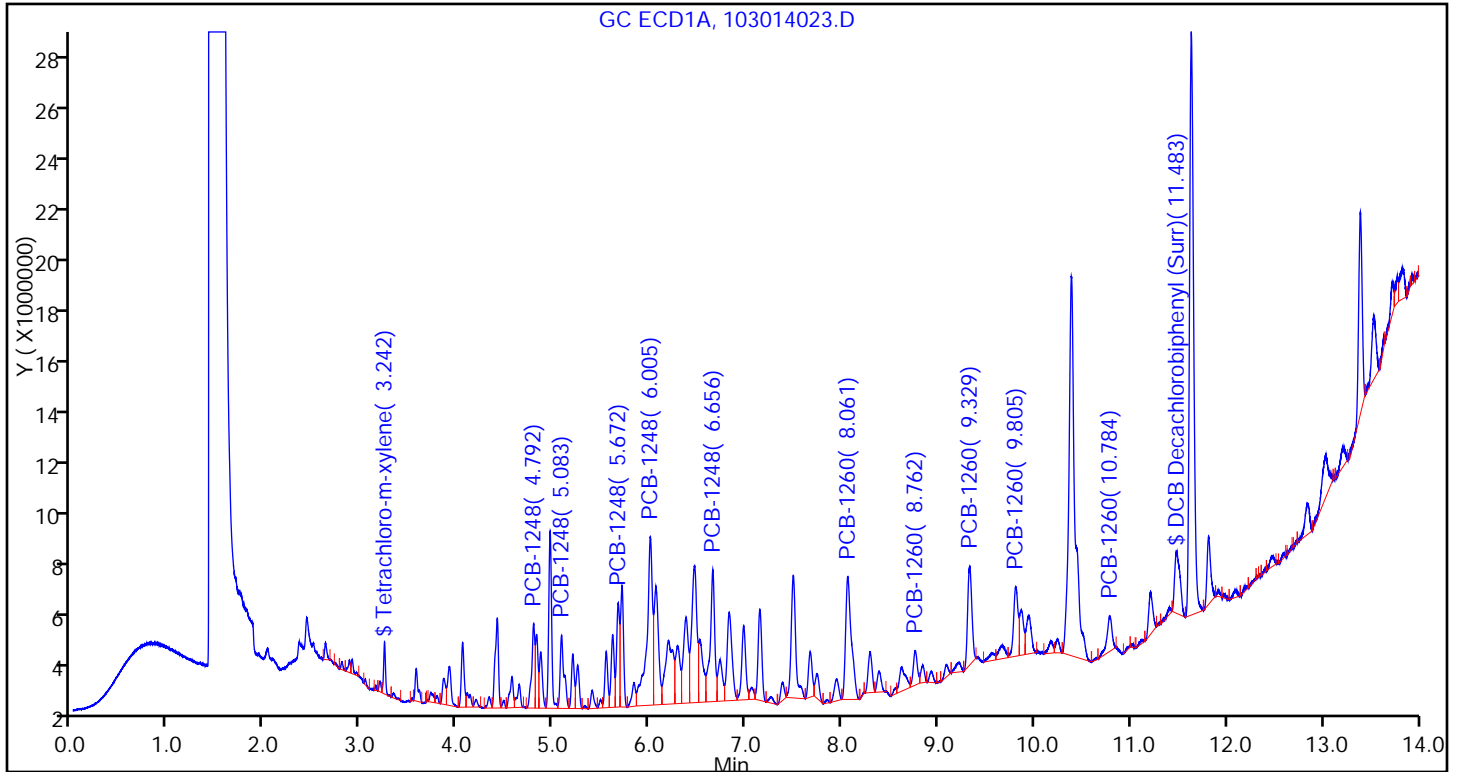
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

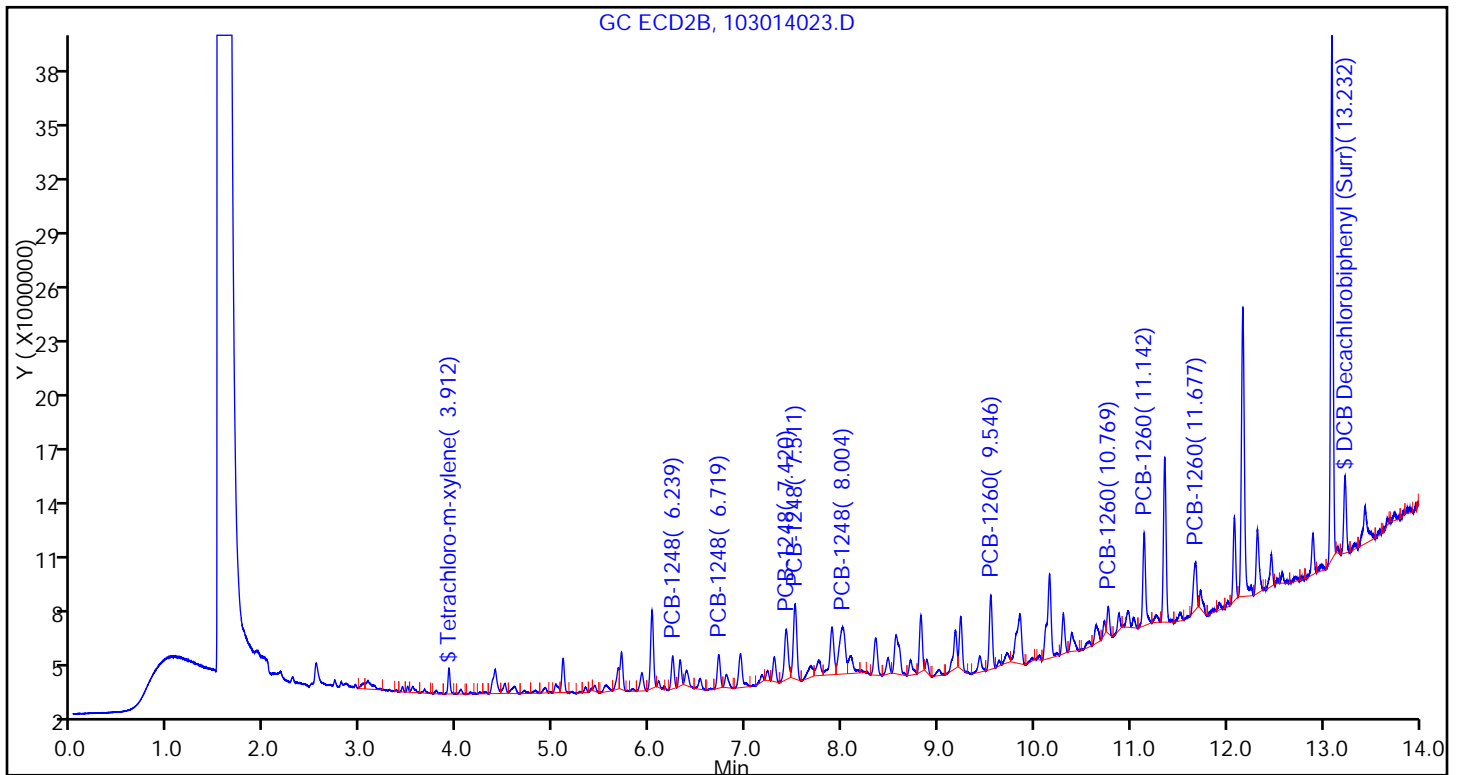
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:23:54

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D

Injection Date: 30-Oct-2014 13:44:28

Instrument ID: CHGC16

Lims ID: 180-37750-A-9-E

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 402331

ALS Bottle#: 23

Worklist Smp#: 23

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

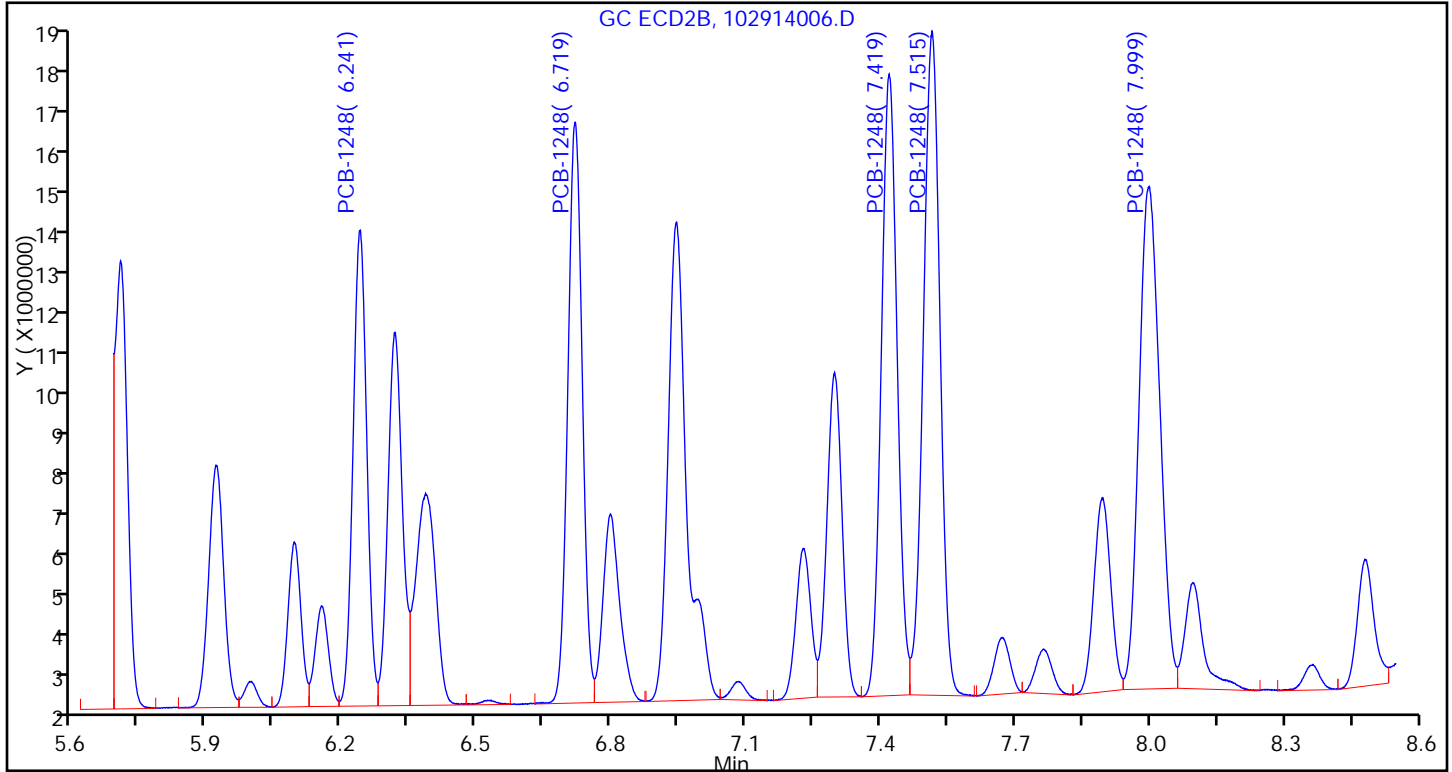
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

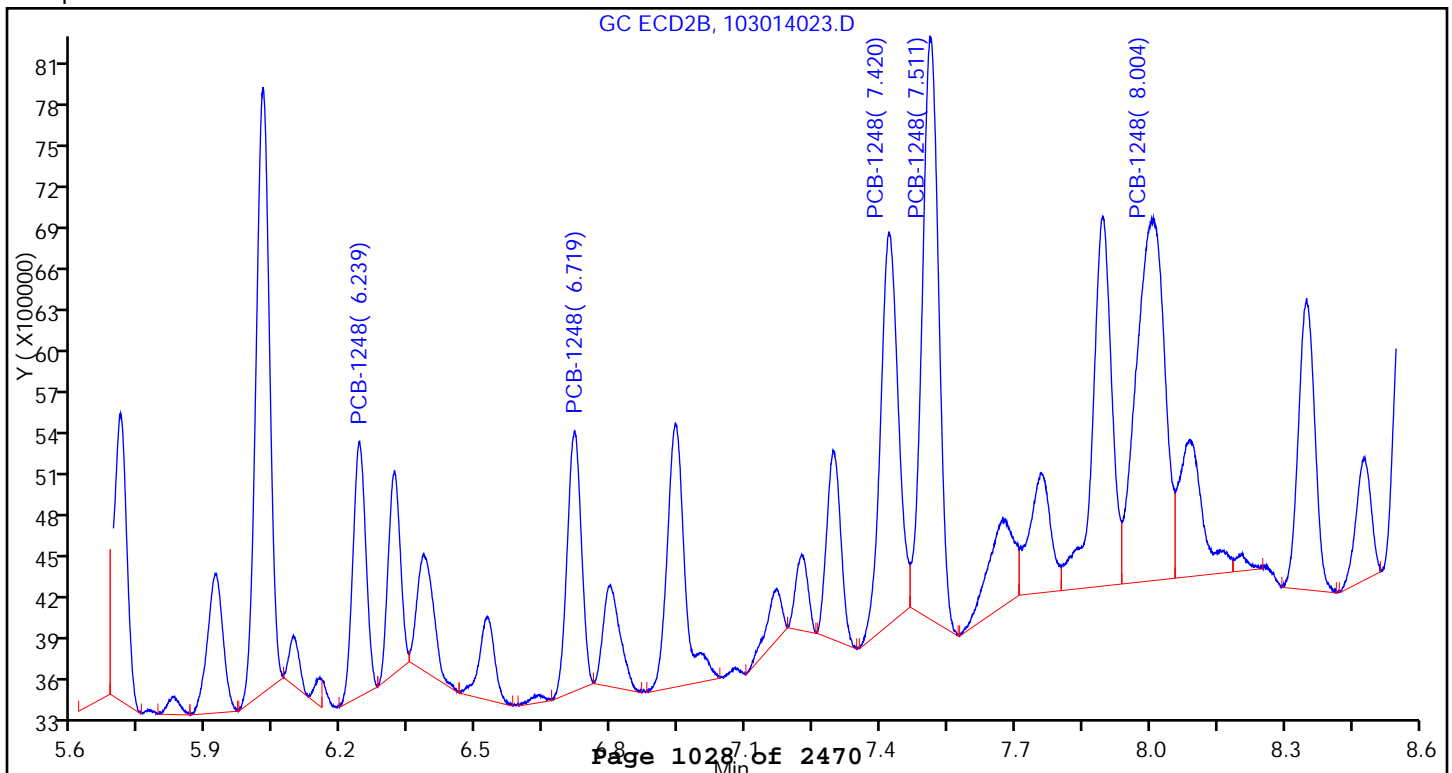
Detector: GC ECD2B

6 PCB-1248, CAS: 12672-29-6

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:23:54

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014023.D

Injection Date: 30-Oct-2014 13:44:28

Instrument ID: CHGC16

Lims ID: 180-37750-A-9-E

Lab Sample ID: 180-37750-9

Client ID: SD-C03

Operator ID: 402331

ALS Bottle#: 23

Worklist Smp#: 23

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

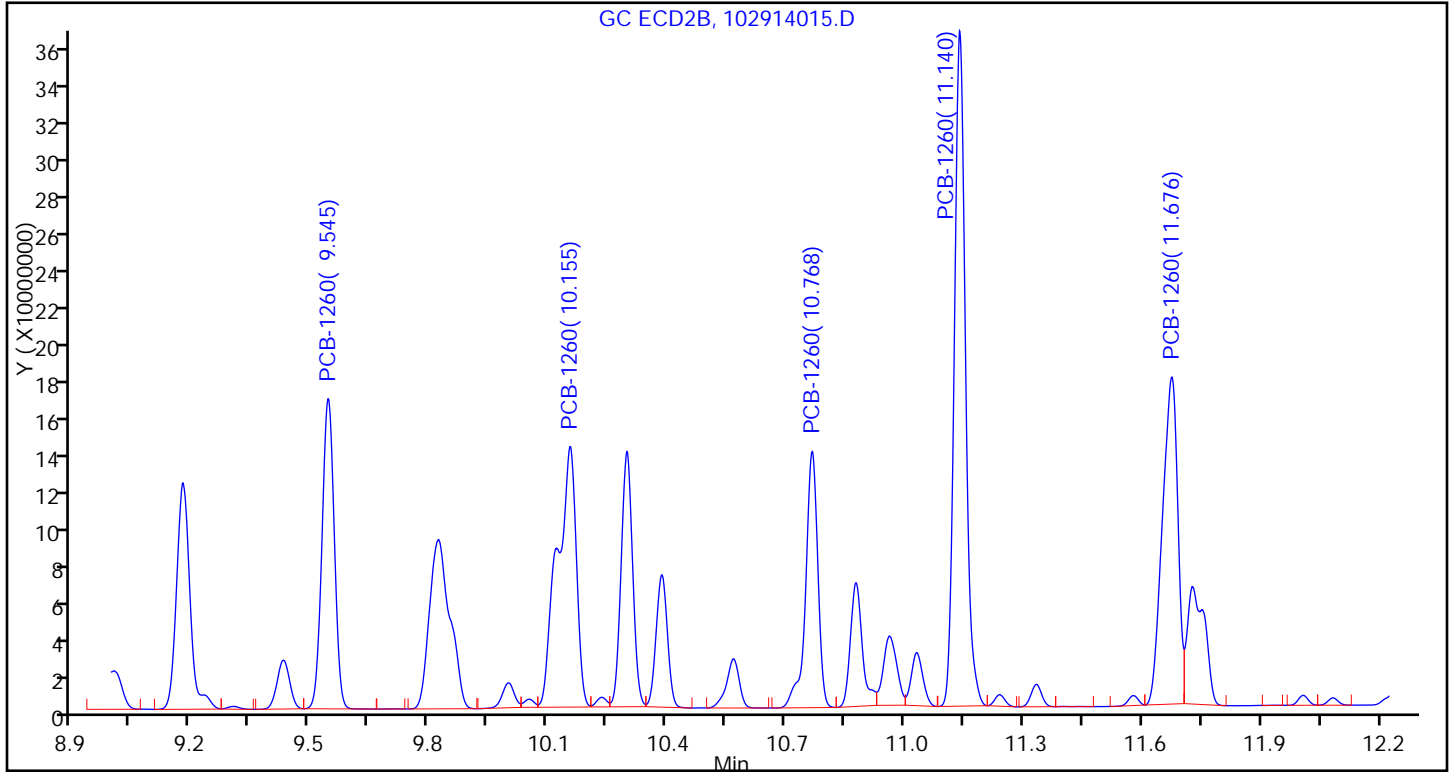
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

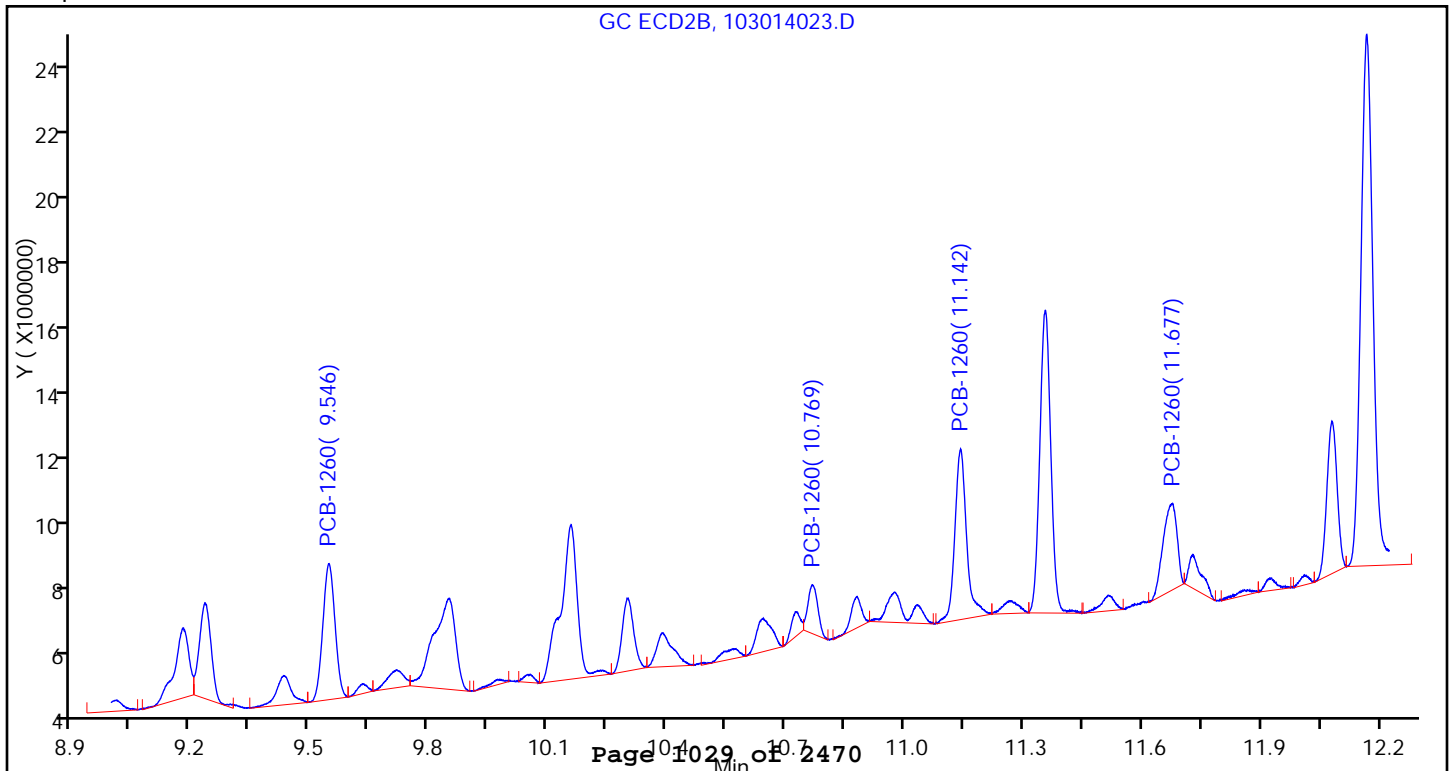
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:31 Calibration End Date: 10/29/2014 08:31 Calibration ID: 18834

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/1	102914003.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1221 Peak 1	3.414										3.364 - 3.464	3.414
PCB-1221 Peak 2	4.236										4.186 - 4.286	4.236
PCB-1221 Peak 3	4.487										4.437 - 4.537	4.487
PCB-1254 Peak 1	7.506										7.436 - 7.576	7.506
PCB-1254 Peak 2	7.891										7.821 - 7.961	7.891
PCB-1254 Peak 3	8.820										8.750 - 8.890	8.820
PCB-1254 Peak 4	9.232										9.162 - 9.302	9.232
PCB-1254 Peak 5	10.157										10.087 - 10.227	10.157

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:31 Calibration End Date: 10/29/2014 08:31 Calibration ID: 18834

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/1	102914003.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	8498000				Ave		8498000.00						20.0			
PCB-1221 Peak 2	10215194				Ave		10215194.0						20.0			
PCB-1221 Peak 3	21066642				Ave		21066642.0						20.0			
PCB-1254 Peak 1	24379384				Ave		24379384.0						20.0			
PCB-1254 Peak 2	27562284				Ave		27562284.0						20.0			
PCB-1254 Peak 3	41487728				Ave		41487728.0						20.0			
PCB-1254 Peak 4	32630276				Ave		32630276.0						20.0			
PCB-1254 Peak 5	37186104				Ave		37186104.0						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:31 Calibration End Date: 10/29/2014 08:31 Calibration ID: 18834

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/1	102914003.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1221 Peak 1	Ave	4249000					0.500				
PCB-1221 Peak 2	Ave	5107597					0.500				
PCB-1221 Peak 3	Ave	10533321					0.500				
PCB-1254 Peak 1	Ave	12189692					0.500				
PCB-1254 Peak 2	Ave	13781142					0.500				
PCB-1254 Peak 3	Ave	20743864					0.500				
PCB-1254 Peak 4	Ave	16315138					0.500				
PCB-1254 Peak 5	Ave	18593052					0.500				

Curve Type Legend:

Ave = Average by Height

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914003.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 29-Oct-2014 08:31:49 ALS Bottle#: 2 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-001  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub1  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:34 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: oravecj

Date: 29-Oct-2014 09:49:46

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 2 PCB-1221

1	2.799	2.799	0.000	4951829H	0.5000	0.5000	
1	3.566	3.566	0.000	16359808H	0.5000	0.5000	
1	3.391	3.391	0.000	7162885H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

2	3.414	3.414	0.000	4249000H	0.5000	0.5000	
2	4.236	4.236	0.000	5107597H	0.5000	0.5000	
2	4.487	4.487	0.000	10533321H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

RPD = 0.00

## 7 PCB-1254

1	5.621	5.621	0.000	15426059H	0.5000	0.5000	
1	6.004	6.004	0.000	22427654H	0.5000	0.5000	
1	6.658	6.658	0.000	28839351H	0.5000	0.5000	
1	7.144	7.144	0.000	21284508H	0.5000	0.5000	
1	8.057	8.057	0.000	21078534H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

2	7.506	7.506	0.000	12189692H	0.5000	0.5000	
2	7.891	7.891	0.000	13781142H	0.5000	0.5000	
2	8.820	8.820	0.000	20743864H	0.5000	0.5000	
2	9.232	9.232	0.000	16315138H	0.5000	0.5000	
2	10.157	10.157	0.000	18593052H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

RPD = 0.00

## Reagents:

GCAR2154CALL4\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914003.D

Injection Date: 29-Oct-2014 08:31:49

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 2

Worklist Smp#: 1

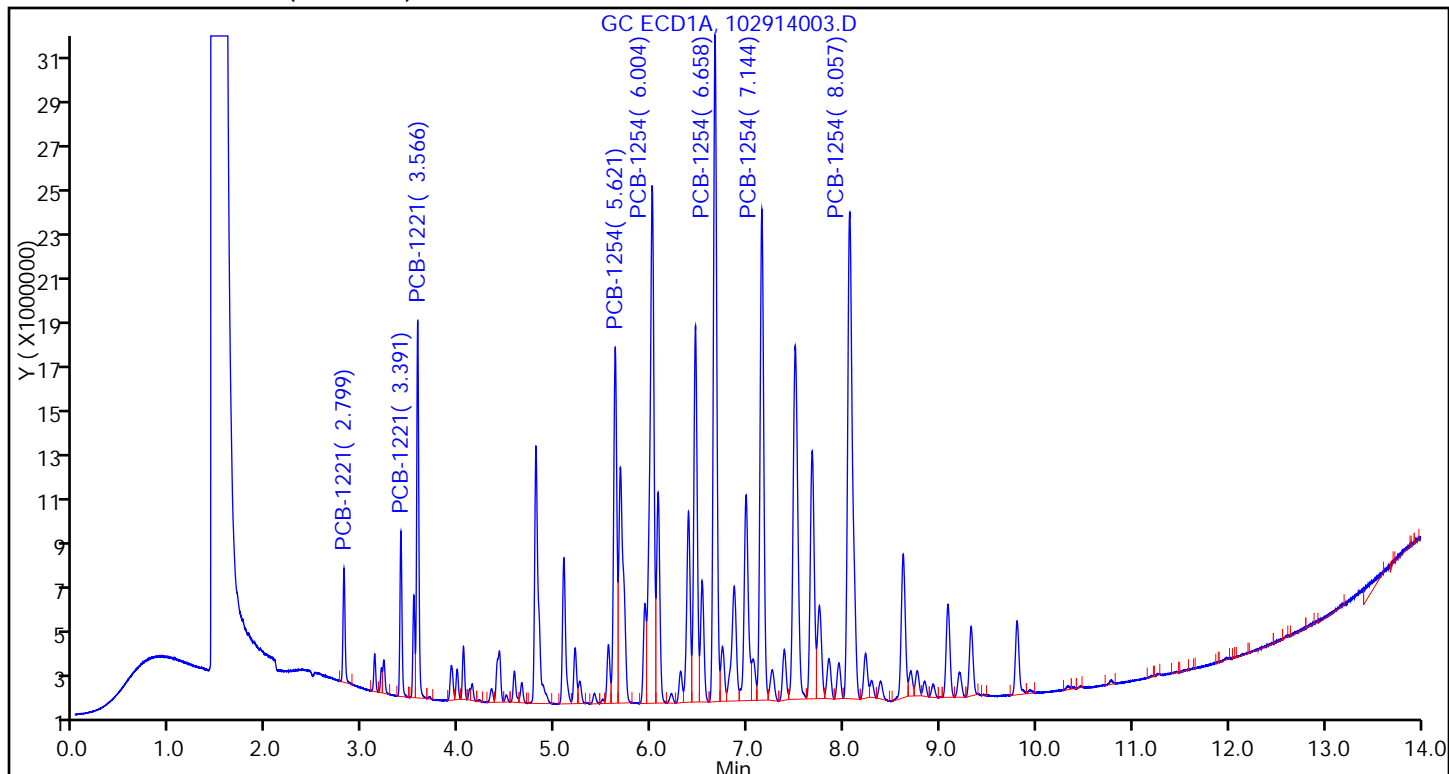
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

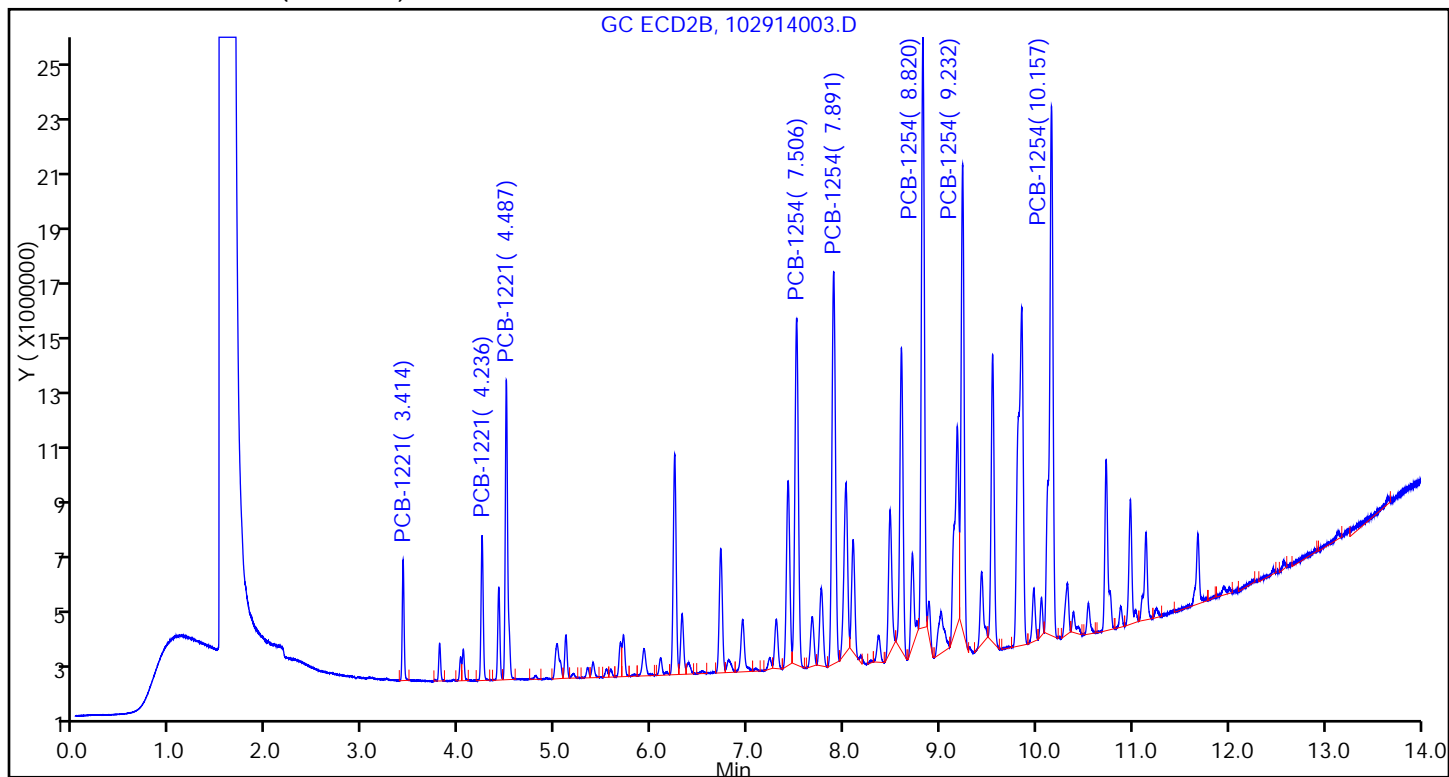
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)





FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:51 Calibration End Date: 10/29/2014 08:51 Calibration ID: 18840

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/2	102914004.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	4.235										4.185 - 4.285	4.235
PCB-1232 Peak 2	4.487										4.437 - 4.537	4.487
PCB-1232 Peak 3	5.023										4.973 - 5.073	5.023
PCB-1232 Peak 4	5.706										5.656 - 5.756	5.706
PCB-1232 Peak 5	5.920										5.870 - 5.970	5.920

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:51 Calibration End Date: 10/29/2014 08:51 Calibration ID: 18840

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/2	102914004.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	7095028				Ave		7095028.00						20.0			
PCB-1232 Peak 2	18125578				Ave		18125578.0						20.0			
PCB-1232 Peak 3	9838142				Ave		9838142.00						20.0			
PCB-1232 Peak 4	15835402				Ave		15835402.0						20.0			
PCB-1232 Peak 5	8955314				Ave		8955314.00						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 08:51 Calibration End Date: 10/29/2014 08:51 Calibration ID: 18840

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/2	102914004.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	3547514					0.500				
PCB-1232 Peak 2	Ave	9062789					0.500				
PCB-1232 Peak 3	Ave	4919071					0.500				
PCB-1232 Peak 4	Ave	7917701					0.500				
PCB-1232 Peak 5	Ave	4477657					0.500				

Curve Type Legend:

Ave = Average by Height

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914004.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 29-Oct-2014 08:51:09 ALS Bottle#: 3 Worklist Smp#: 2  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-002  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub2  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:30 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: oravecj Date: 29-Oct-2014 09:50:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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5 PCB-1232

1	3.391	3.391	0.000	5042545H	0.5000	0.5000	
1	3.566	3.566	0.000	13858747H	0.5000	0.5000	
1	3.916	3.916	0.000	7958140H	0.5000	0.5000	
1	4.414	4.414	0.000	12656200H	0.5000	0.5000	
1	4.826	4.826	0.000	3735760H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

2	4.235	4.235	0.000	3547514H	0.5000	0.5000	
2	4.487	4.487	0.000	9062789H	0.5000	0.5000	
2	5.023	5.023	0.000	4919071H	0.5000	0.5000	
2	5.706	5.706	0.000	7917701H	0.5000	0.5000	
2	5.920	5.920	0.000	4477657H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

RPD = 0.00

Reagents:

GCAR1232CALL4\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914004.D

Injection Date: 29-Oct-2014 08:51:09

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 3

Worklist Smp#: 2

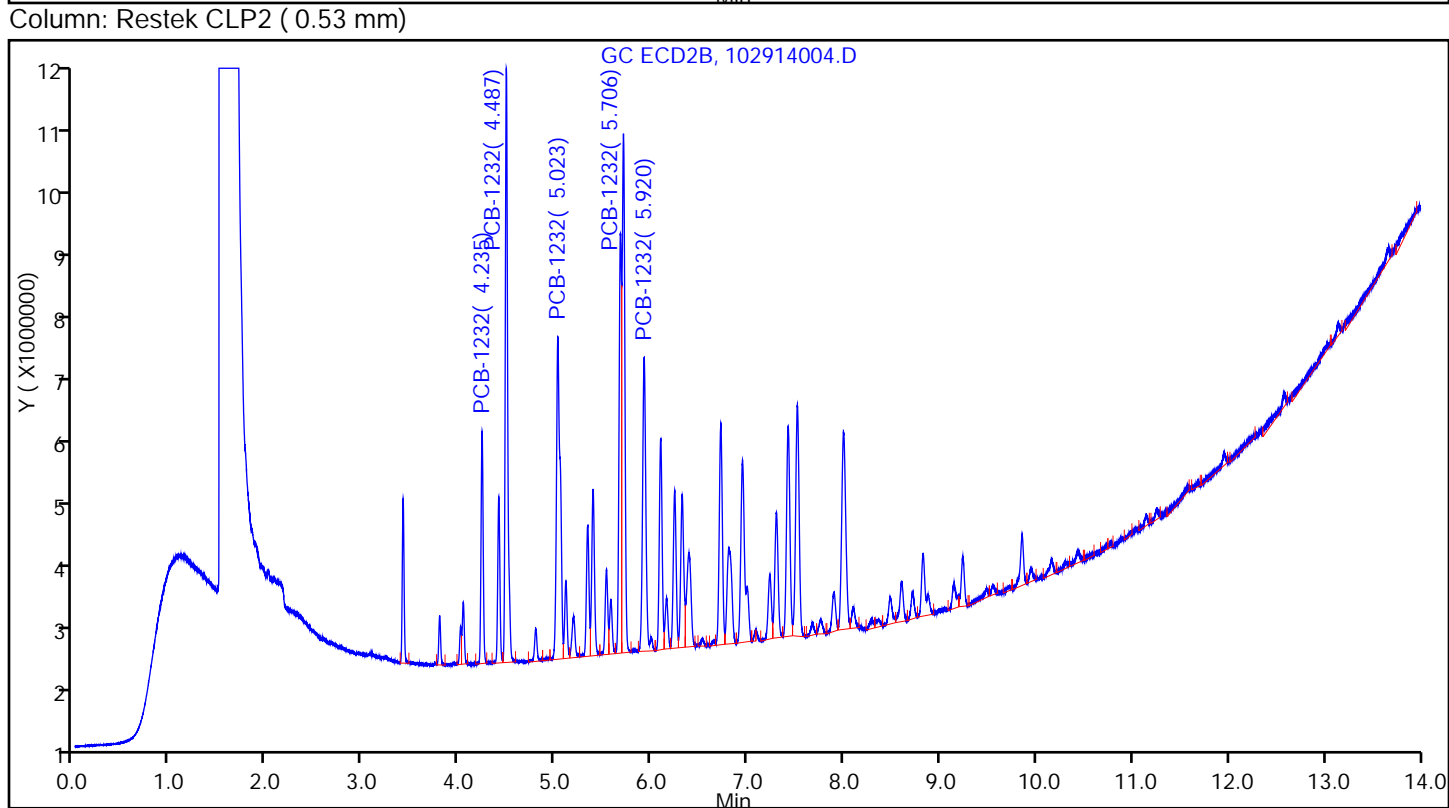
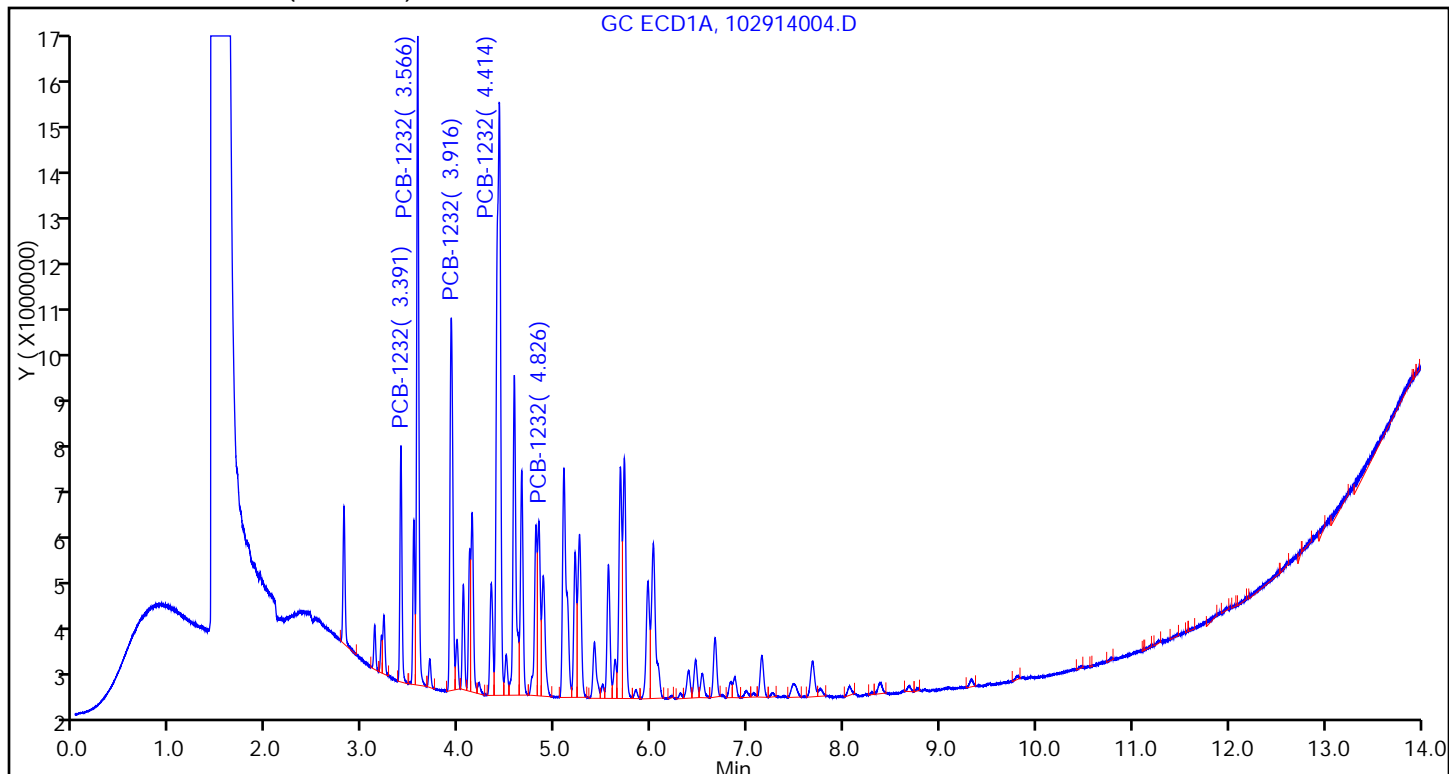
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:10 Calibration End Date: 10/29/2014 09:10 Calibration ID: 18846

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/3	102914005.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1242 Peak 1	4.489										4.439 - 4.539	4.489
PCB-1242 Peak 2	5.025										4.975 - 5.075	5.025
PCB-1242 Peak 3	5.708										5.658 - 5.758	5.708
PCB-1242 Peak 4	6.719										6.669 - 6.769	6.719
PCB-1242 Peak 5	7.997										7.947 - 8.047	7.997

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:10 Calibration End Date: 10/29/2014 09:10 Calibration ID: 18846

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/3	102914005.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1242 Peak 1	12681424				Ave		12681424.0						20.0			
PCB-1242 Peak 2	17029420				Ave		17029420.0						20.0			
PCB-1242 Peak 3	28126738				Ave		28126738.0						20.0			
PCB-1242 Peak 4	13522264				Ave		13522264.0						20.0			
PCB-1242 Peak 5	12252778				Ave		12252778.0						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:10 Calibration End Date: 10/29/2014 09:10 Calibration ID: 18846

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/3	102914005.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1242 Peak 1	Ave	6340712					0.500				
PCB-1242 Peak 2	Ave	8514710					0.500				
PCB-1242 Peak 3	Ave	14063369					0.500				
PCB-1242 Peak 4	Ave	6761132					0.500				
PCB-1242 Peak 5	Ave	6126389					0.500				

Curve Type Legend:

Ave = Average by Height



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914005.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 29-Oct-2014 09:10:28 ALS Bottle#: 4 Worklist Smp#: 3  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-003  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub3  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:26 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: oravecj Date: 29-Oct-2014 09:53:56

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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3 PCB-1242

1	3.566	3.566	0.000	8624772H	0.5000	0.5000	
1	3.915	3.915	0.000	14066977H	0.5000	0.5000	
1	4.416	4.416	0.000	22634302H	0.5000	0.5000	
1	5.088	5.088	0.000	9926299H	0.5000	0.5000	
1	5.715	5.715	0.000	10184041H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

2	4.489	4.489	0.000	6340712H	0.5000	0.5000	
2	5.025	5.025	0.000	8514710H	0.5000	0.5000	
2	5.708	5.708	0.000	14063369H	0.5000	0.5000	
2	6.719	6.719	0.000	6761132H	0.5000	0.5000	
2	7.997	7.997	0.000	6126389H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

RPD = 0.00

Reagents:

GCAR1242CALL4\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914005.D

Injection Date: 29-Oct-2014 09:10:28

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 4

Worklist Smp#: 3

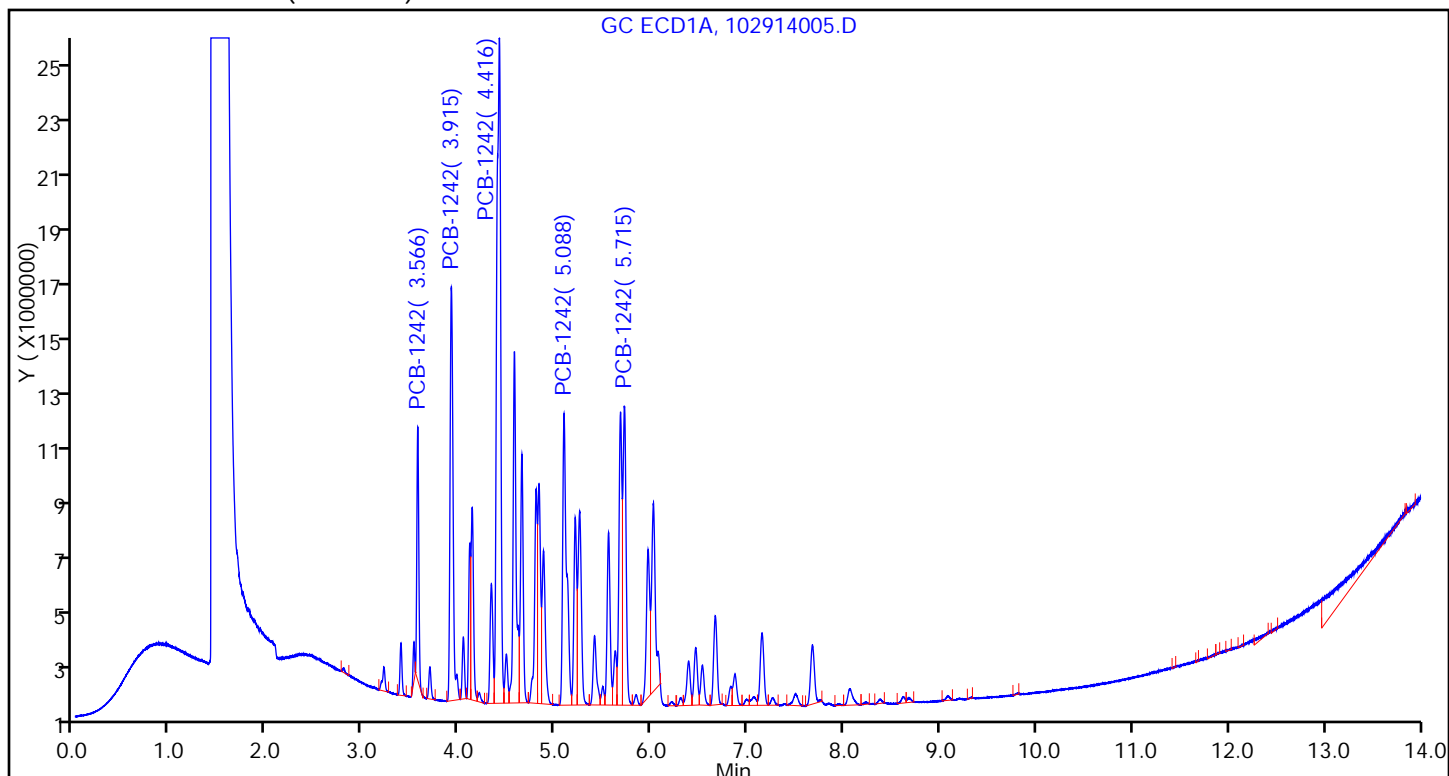
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

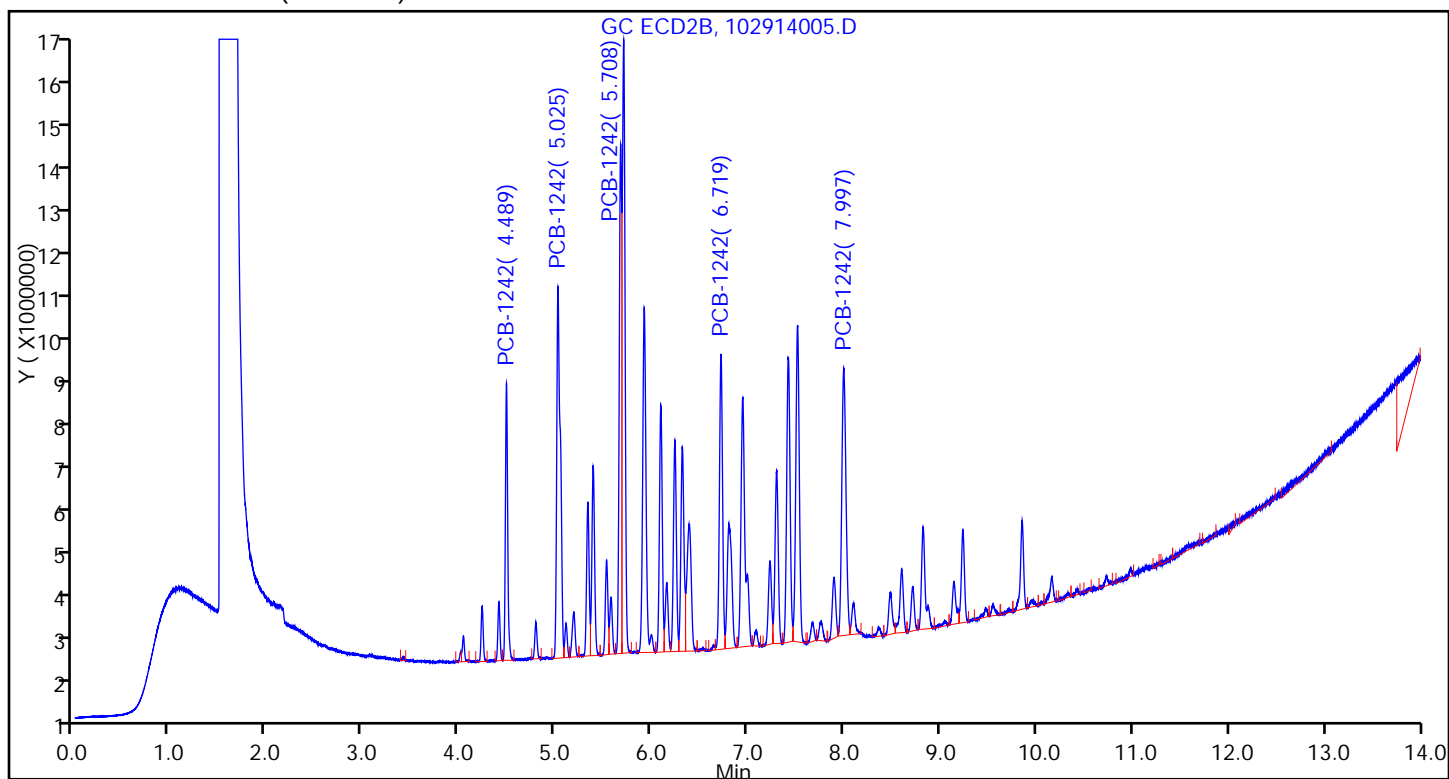
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:29 Calibration End Date: 10/29/2014 09:29 Calibration ID: 18852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/4	102914006.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1248 Peak 1	6.241										6.191 - 6.291	6.241
PCB-1248 Peak 2	6.719										6.669 - 6.769	6.719
PCB-1248 Peak 3	7.419										7.369 - 7.469	7.419
PCB-1248 Peak 4	7.515										7.465 - 7.565	7.515
PCB-1248 Peak 5	7.999										7.949 - 8.049	7.999

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:29 Calibration End Date: 10/29/2014 09:29 Calibration ID: 18852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/4	102914006.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	21680030				Ave		21680030.0						20.0			
PCB-1248 Peak 2	26447740				Ave		26447740.0						20.0			
PCB-1248 Peak 3	28327540				Ave		28327540.0						20.0			
PCB-1248 Peak 4	30276642				Ave		30276642.0						20.0			
PCB-1248 Peak 5	22877572				Ave		22877572.0						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 09:29 Calibration End Date: 10/29/2014 09:29 Calibration ID: 18852

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/4	102914006.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	10840015					0.500				
PCB-1248 Peak 2	Ave	13223870					0.500				
PCB-1248 Peak 3	Ave	14163770					0.500				
PCB-1248 Peak 4	Ave	15138321					0.500				
PCB-1248 Peak 5	Ave	11438786					0.500				

Curve Type Legend:

Ave = Average by Height

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914006.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 29-Oct-2014 09:29:42 ALS Bottle#: 5 Worklist Smp#: 4  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-004  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub4  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:22 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: oravecj

Date: 29-Oct-2014 09:55:05

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 6 PCB-1248

1	4.796	4.796	0.000	16363163H	0.5000	0.5000	
1	5.087	5.087	0.000	19496509H	0.5000	0.5000	
1	5.675	5.675	0.000	21588476H	0.5000	0.5000	
1	6.015	6.015	0.000	15727927H	0.5000	0.5000	
1	6.660	6.660	0.000	10285436H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

2	6.241	6.241	0.000	10840015H	0.5000	0.5000	
2	6.719	6.719	0.000	13223870H	0.5000	0.5000	
2	7.419	7.419	0.000	14163770H	0.5000	0.5000	
2	7.515	7.515	0.000	15138321H	0.5000	0.5000	
2	7.999	7.999	0.000	11438786H	0.5000	0.5000	

Average of Peak Amounts = 0.5000

RPD = 0.00

## Reagents:

GCAR1248CALL4\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914006.D

Injection Date: 29-Oct-2014 09:29:42

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 5

Worklist Smp#: 4

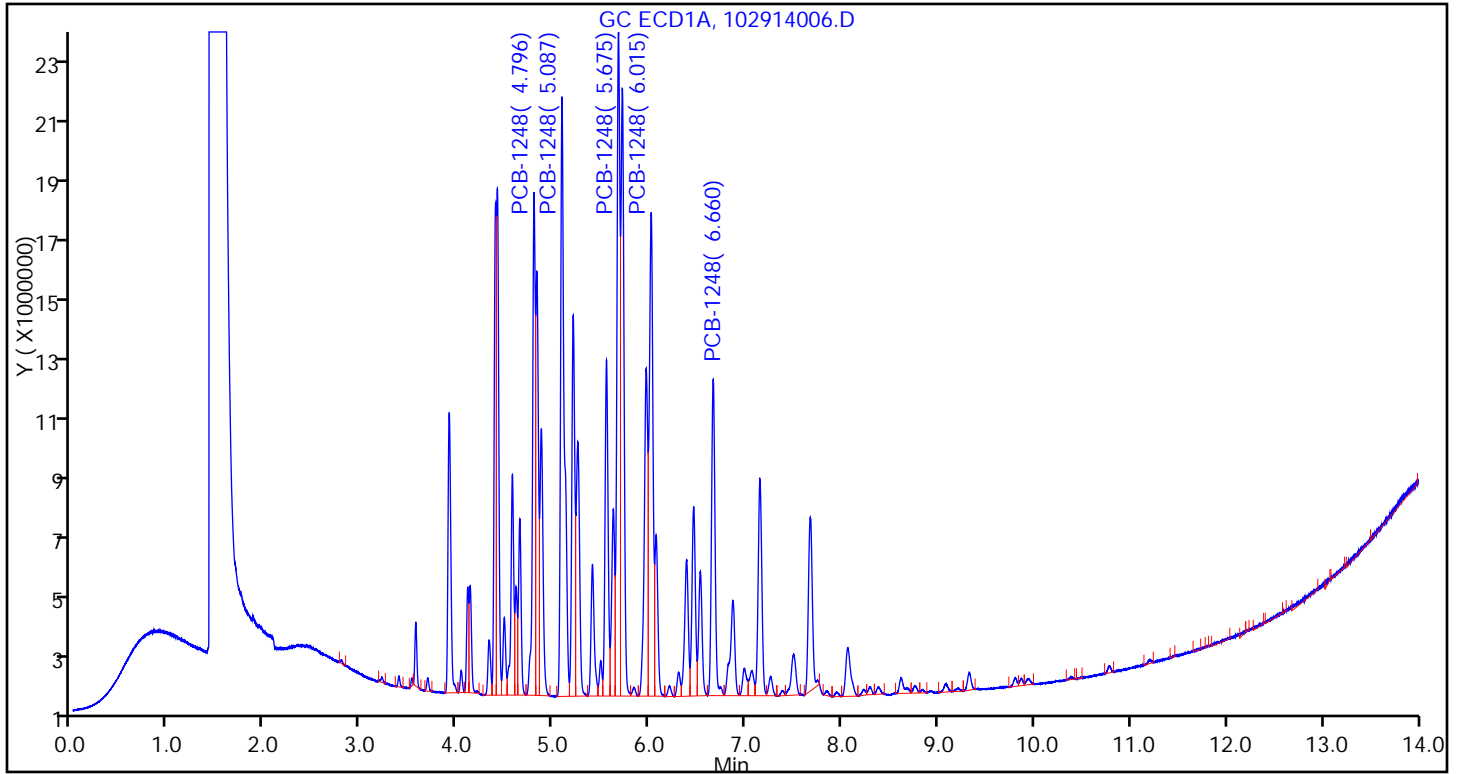
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

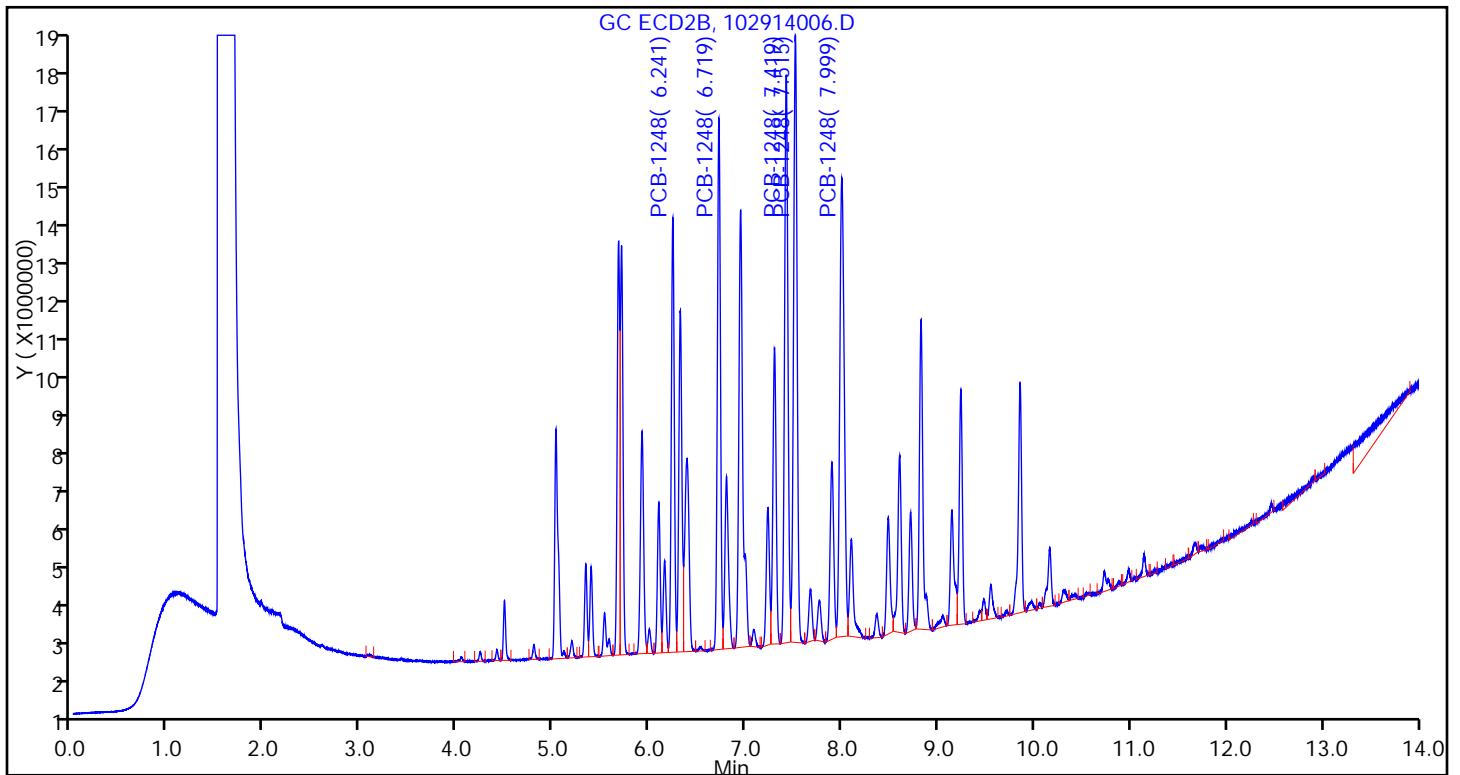
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 10:27 Calibration End Date: 10/29/2014 12:22 Calibration ID: 18828

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/7	102914009.D
Level 2	IC 180-123130/8	102914010.D
Level 3	IC 180-123130/9	102914011.D
Level 4	ICRT 180-123130/10	102914012.D
Level 5	IC 180-123130/11	102914013.D
Level 6	IC 180-123130/12	102914014.D
Level 7	IC 180-123130/13	102914015.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
PCB-1016 Peak 1	5.024	5.022	5.021	5.022	5.023	5.022	5.024				4.972 - 5.072	5.023
PCB-1016 Peak 2	5.674	5.705	5.703	5.705	5.706	5.704	5.707				5.655 - 5.755	5.701
PCB-1016 Peak 3	5.921	5.918	5.917	5.920	5.920	5.917	5.920				5.870 - 5.970	5.919
PCB-1016 Peak 4	6.091	6.091	6.091	6.091	6.092	6.090	6.093				6.041 - 6.141	6.091
PCB-1016 Peak 5	7.505	7.506	7.505	7.505	7.505	7.503	7.507				7.455 - 7.555	7.505
PCB-1260 Peak 1	9.544	9.545	9.544	9.543	9.544	9.542	9.545				9.493 - 9.593	9.544
PCB-1260 Peak 2	10.156	10.154	10.155	10.155	10.156	10.154	10.155				10.105 - 10.205	10.155
PCB-1260 Peak 3	10.766	10.768	10.766	10.766	10.766	10.765	10.768				10.716 - 10.816	10.766
PCB-1260 Peak 4	11.140	11.139	11.139	11.139	11.139	11.138	11.140				11.089 - 11.189	11.139
PCB-1260 Peak 5	11.677	11.675	11.673	11.673	11.675	11.674	11.676				11.623 - 11.723	11.675
Tetrachloro-m-xylene (Surr)	3.911	3.910	3.910	3.911	3.912	3.911	3.915				3.861 - 3.961	3.911
DCB Decachlorobiphenyl (Surr)	13.231	13.231	13.230	13.231	13.230	13.231	13.231				13.161 - 13.301	13.231



FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 10:27 Calibration End Date: 10/29/2014 12:22 Calibration ID: 18828

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/7	102914009.D
Level 2	IC 180-123130/8	102914010.D
Level 3	IC 180-123130/9	102914011.D
Level 4	ICRT 180-123130/10	102914012.D
Level 5	IC 180-123130/11	102914013.D
Level 6	IC 180-123130/12	102914014.D
Level 7	IC 180-123130/13	102914015.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
PCB-1016 Peak 1	21197900 20565843	24299940 20171703	21504765 18837279	21620670	Ave		21171157.1				7.9		20.0			
PCB-1016 Peak 2	28847200 35781753	39381620 34859569	35778870 32155236	36364054	Ave		34738328.9				9.7		20.0			
PCB-1016 Peak 3	21719100 19732383	22761280 19495906	19969810 17934081	20451522	Ave		20294868.8				7.7		20.0			
PCB-1016 Peak 4	14677300 14229860	15829660 13973560	14248300 12897954	14620628	Ave		14353894.4				6.1		20.0			
PCB-1016 Peak 5	13801900 12775142	14385920 12357199	12889690 11512120	12935584	Ave		12951079.2				7.2		20.0			
PCB-1260 Peak 1	46020900 46154265	48606720 44907614	44340455 41626777	46385078	Ave		45434544.1				4.7		20.0			
PCB-1260 Peak 2	35474900 37114153	39033220 36942070	36589255 34941919	37708088	Ave		36829086.4				3.7		20.0			
PCB-1260 Peak 3	35761300 37879117	38149980 36431017	35677340 34397550	37195128	Ave		36498775.9				3.7		20.0			
PCB-1260 Peak 4	83139600 95239602	95539380 94689330	89058350 90643562	95081114	Ave		91912991.1				5.0		20.0			
PCB-1260 Peak 5	37041200 45217560	40845760 46480063	41129150 43879406	44867618	Ave		42780108.1				7.7		20.0			
Tetrachloro-m-xylene (Surr)	932428000 1042555880	1122384400 1032867760	1041505800 965619485	1093310760	Ave		1032953155				6.4		20.0			
DCB Decachlorobiphenyl (Surr)	761720000 864652280	844255200 844521470	792614200 825625565	845476720	Ave		825552205				4.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI  
GC SEMI VOA INITIAL CALIBRATION DATA  
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1 Analy Batch No.: 123130

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 GC Column: RTX-CLP2 ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/29/2014 10:27 Calibration End Date: 10/29/2014 12:22 Calibration ID: 18828

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-123130/7	102914009.D
Level 2	IC 180-123130/8	102914010.D
Level 3	IC 180-123130/9	102914011.D
Level 4	ICRT 180-123130/10	102914012.D
Level 5	IC 180-123130/11	102914013.D
Level 6	IC 180-123130/12	102914014.D
Level 7	IC 180-123130/13	102914015.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	211979 40343406	1214997 75349116	4300953	10810335	20565843	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	288472 69719138	1969081 128620945	7155774	18182027	35781753	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	217191 38991811	1138064 71736323	3993962	10225761	19732383	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	146773 27947119	791483 51591814	2849660	7310314	14229860	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	138019 24714397	719296 46048479	2577938	6467792	12775142	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	460209 89815228	2430336 166507106	8868091	23192539	46154265	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	354749 73884140	1951661 139767676	7317851	18854044	37114153	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	357613 72862034	1907499 137590198	7135468	18597564	37879117	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	831396 189378660	4776969 362574247	17811670	47540557	95239602	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	370412 92960126	2042288 175517622	8225830	22433809	45217560	0.0100 2.00	0.0500 4.00	0.200	0.500	1.00
Tetrachloro-m-xylene (Surr)	Ave	466214 103286776	2805961 193123897	10415058	27332769	52127794	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl (Surr)	Ave	380860 84452147	2110638 165125113	7926142	21136918	43232614	0.000500 0.100	0.00250 0.200	0.0100	0.0250	0.0500

Curve Type Legend:

Ave = Average by Height

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914009.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 29-Oct-2014 10:27:16 ALS Bottle#: 8 Worklist Smp#: 7  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-007  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:08 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: oravecj Date: 29-Oct-2014 12:26:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 1 Tetrachloro-m-xylene

1	3.242	3.242	0.000	614694H	0.000500	0.000434	
2	3.911	3.911	0.000	466214H	0.000500	0.000451	

RPD = 3.89

4 PCB-1016

1	3.567	3.566	0.001	210967H	0.0100	0.009135	
1	3.914	3.915	-0.001	353621H	0.0100	0.009840	
1	4.416	4.414	0.002	500579H	0.0100	0.008860	
1	4.573	4.570	0.003	253619H	0.0100	0.008525	
1	5.089	5.086	0.003	188724H	0.0100	0.007923	

Average of Peak Amounts = 0.008857

2	5.024	5.022	0.002	211979H	0.0100	0.0100	
2	5.674	5.705	-0.031	288472H	0.0100	0.008304	
2	5.921	5.920	0.001	217191H	0.0100	0.0107	
2	6.091	6.091	0.000	146773H	0.0100	0.0102	
2	7.505	7.505	0.000	138019H	0.0100	0.0107	

Average of Peak Amounts = 0.0100

RPD = 11.93

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914009.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.051	8.054	-0.003	364226H	0.0100	0.007914	
1	8.757	8.757	0.000	330709H	0.0100	0.008981	
1	9.321	9.318	0.003	825281H	0.0100	0.009404	
1	9.800	9.799	0.001	454274H	0.0100	0.009411	
1	10.777	10.774	0.003	269897H	0.0100	0.009667	

Average of Peak Amounts = 0.009075

2	9.544	9.543	0.001	460209H	0.0100	0.0101	
2	10.156	10.155	0.001	354749H	0.0100	0.009632	
2	10.766	10.766	0.000	357613H	0.0100	0.009798	
2	11.140	11.139	0.001	831396H	0.0100	0.009045	
2	11.677	11.673	0.004	370412H	0.0100	0.008659	

Average of Peak Amounts = 0.009453

RPD = 4.07

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.468	11.469	-0.001	450053H	0.000500	0.000514	
2	13.231	13.231	0.000	380860H	0.000500	0.000461	

RPD = 10.77

## Reagents:

GCAR1660CALL1\_00011

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914009.D

Injection Date: 29-Oct-2014 10:27:16

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 8

Worklist Smp#: 7

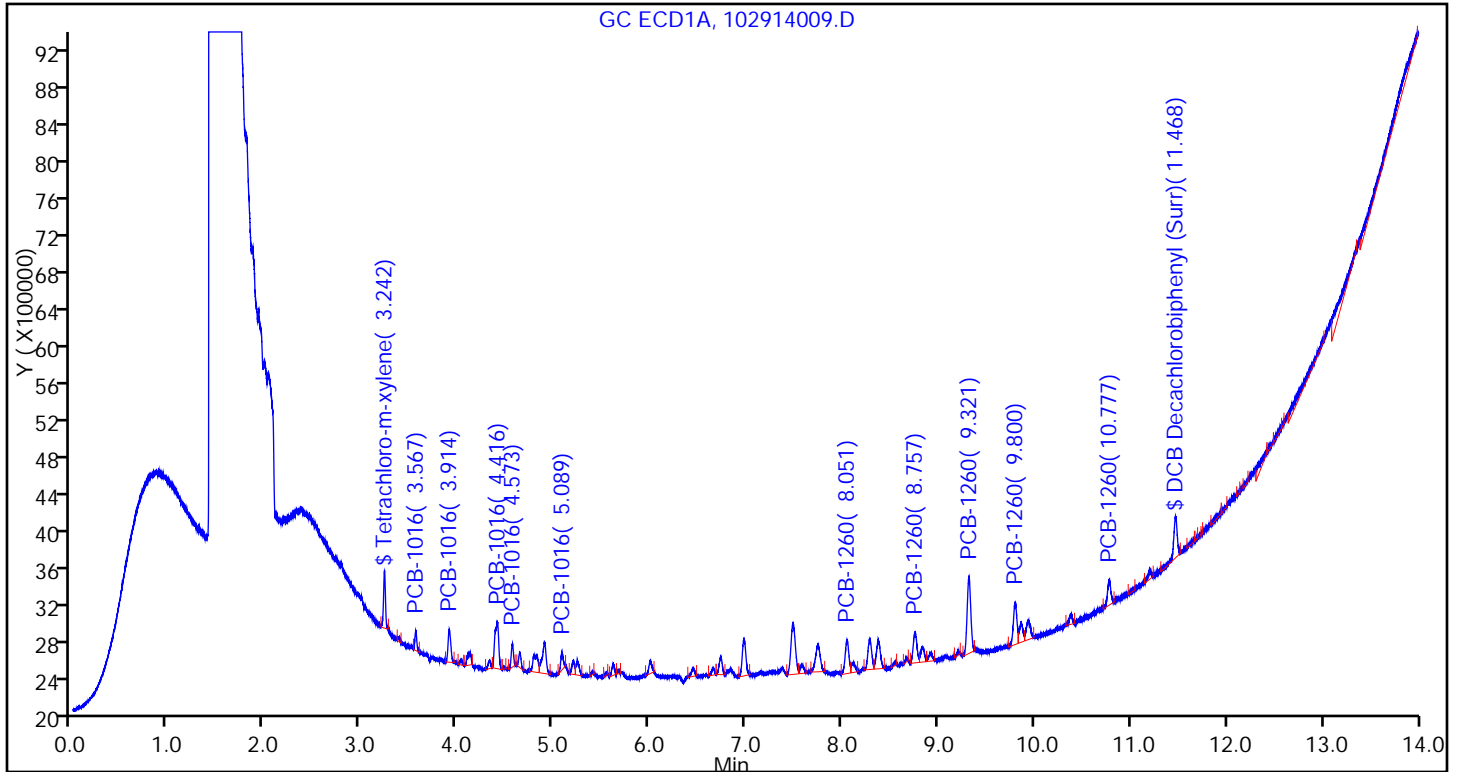
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

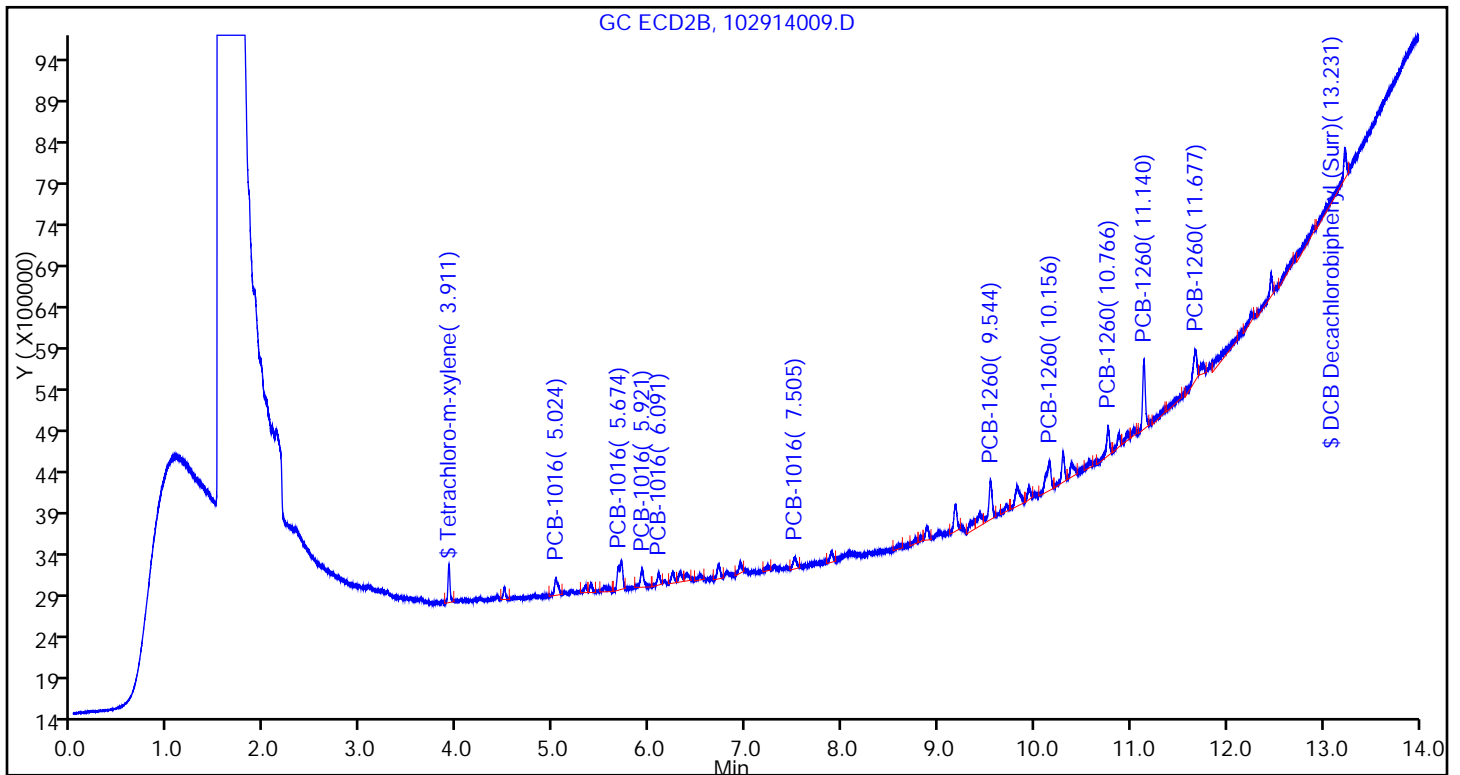
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914010.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 29-Oct-2014 10:46:31 ALS Bottle#: 9 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-008  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:58:03 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.241	3.242	-0.001	3765966H	0.002500	0.002660
2	3.910	3.911	-0.001	2805961H	0.002500	0.002716

RPD = 2.11

## 4 PCB-1016

1	3.566	3.566	0.000	1261366H	0.0500	0.0546
1	3.914	3.915	-0.001	2027003H	0.0500	0.0564
1	4.414	4.414	0.000	3077405H	0.0500	0.0545
1	4.569	4.570	-0.001	1673556H	0.0500	0.0563
1	5.086	5.086	0.000	1373823H	0.0500	0.0577

Average of Peak Amounts = 0.0559

2	5.022	5.022	0.000	1214997H	0.0500	0.0574
2	5.705	5.705	0.000	1969081H	0.0500	0.0567
2	5.918	5.920	-0.002	1138064H	0.0500	0.0561
2	6.091	6.091	0.000	791483H	0.0500	0.0551
2	7.506	7.505	0.001	719296H	0.0500	0.0555

Average of Peak Amounts = 0.0562

RPD = 0.50

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914010.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.053	8.054	-0.001	2477986H	0.0500	0.0538	
1	8.758	8.757	0.001	2028430H	0.0500	0.0551	
1	9.319	9.318	0.001	4709800H	0.0500	0.0537	
1	9.800	9.799	0.001	2581259H	0.0500	0.0535	
1	10.778	10.774	0.004	1534852H	0.0500	0.0550	

Average of Peak Amounts = 0.0542

2	9.545	9.543	0.002	2430336H	0.0500	0.0535	
2	10.154	10.155	-0.001	1951661H	0.0500	0.0530	
2	10.768	10.766	0.002	1907499H	0.0500	0.0523	
2	11.139	11.139	0.000	4776969H	0.0500	0.0520	
2	11.675	11.673	0.002	2042288H	0.0500	0.0477	

Average of Peak Amounts = 0.0517

RPD = 4.75

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.468	11.469	-0.001	2500972H	0.002500	0.002856	
2	13.231	13.231	0.000	2110638H	0.002500	0.002557	

RPD = 11.05

## Reagents:

GCAR1660CALL2\_00009

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914010.D

Injection Date: 29-Oct-2014 10:46:31

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 9

Worklist Smp#: 8

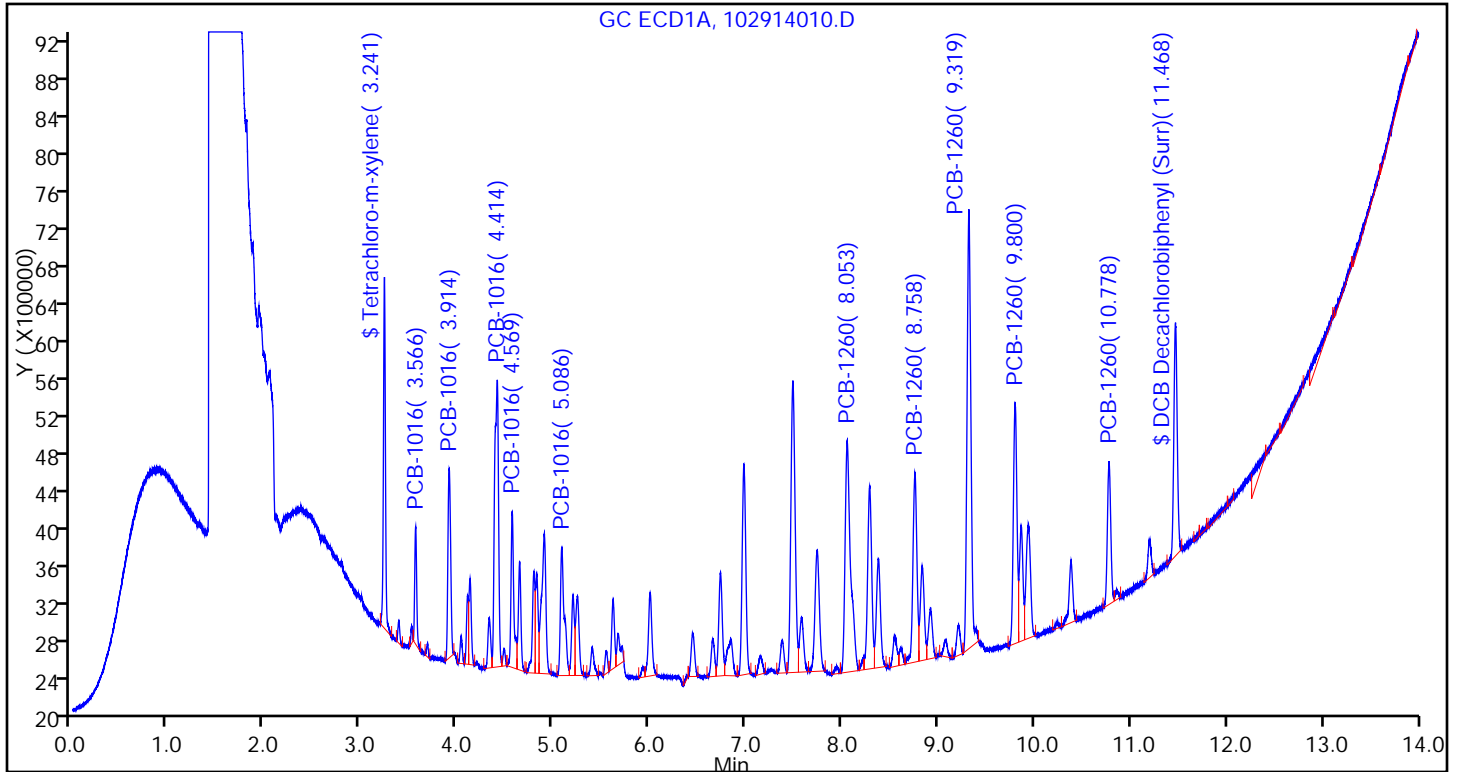
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

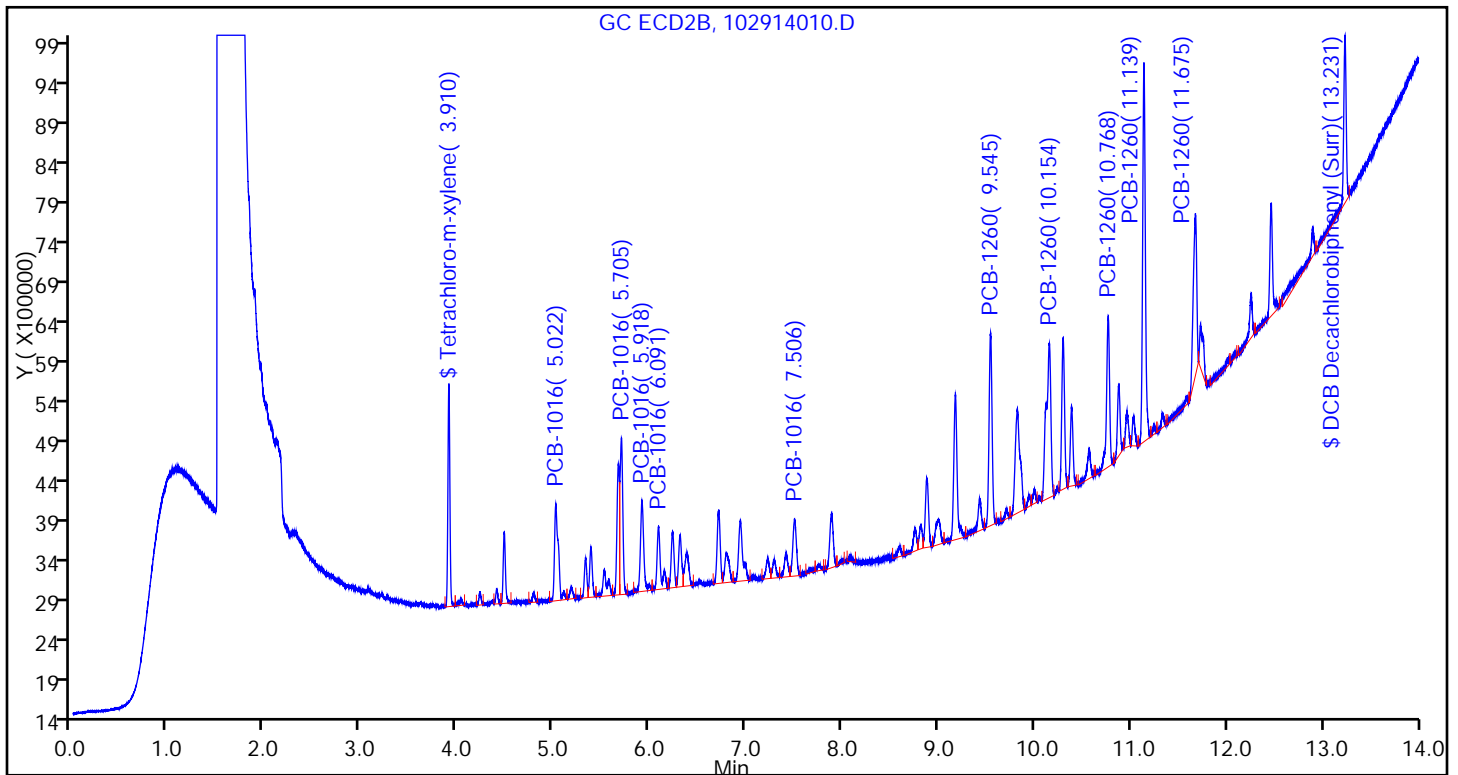
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)





TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914011.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 29-Oct-2014 11:05:47 ALS Bottle#: 10 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-009  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:57:59 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.240	3.242	-0.002	14326477H	0.0100	0.0101	
2	3.910	3.911	-0.001	10415058H	0.0100	0.0101	

RPD = 0.35

## 4 PCB-1016

1	3.565	3.566	-0.001	4734352H	0.2000	0.2050	
1	3.913	3.915	-0.002	7307725H	0.2000	0.2033	
1	4.414	4.414	0.000	11397164H	0.2000	0.2017	
1	4.569	4.570	-0.001	6061991H	0.2000	0.2038	
1	5.084	5.086	-0.002	4955332H	0.2000	0.2080	

Average of Peak Amounts = 0.2044

2	5.021	5.022	-0.001	4300953H	0.2000	0.2032	
2	5.703	5.705	-0.002	7155774H	0.2000	0.2060	
2	5.917	5.920	-0.003	3993962H	0.2000	0.1968	
2	6.091	6.091	0.000	2849660H	0.2000	0.1985	
2	7.505	7.505	0.000	2577938H	0.2000	0.1991	

Average of Peak Amounts = 0.2007

RPD = 1.81

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914011.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.051	8.054	-0.003	9593082H	0.2000	0.2084	
1	8.757	8.757	0.000	7348336H	0.2000	0.1996	
1	9.317	9.318	-0.001	16904698H	0.2000	0.1926	
1	9.798	9.799	-0.001	9357861H	0.2000	0.1939	
1	10.776	10.774	0.002	5525499H	0.2000	0.1979	

Average of Peak Amounts = 0.1985

2	9.544	9.543	0.001	8868091H	0.2000	0.1952	
2	10.155	10.155	0.000	7317851H	0.2000	0.1987	
2	10.766	10.766	0.000	7135468H	0.2000	0.1955	
2	11.139	11.139	0.000	17811670H	0.2000	0.1938	
2	11.673	11.673	0.000	8225830H	0.2000	0.1923	

Average of Peak Amounts = 0.1951

RPD = 1.72

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.465	11.469	-0.004	8560272H	0.0100	0.009774	
2	13.230	13.231	-0.001	7926142H	0.0100	0.009601	

RPD = 1.79

## Reagents:

GCAR1660CALL3\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914011.D

Injection Date: 29-Oct-2014 11:05:47

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 10

Worklist Smp#: 9

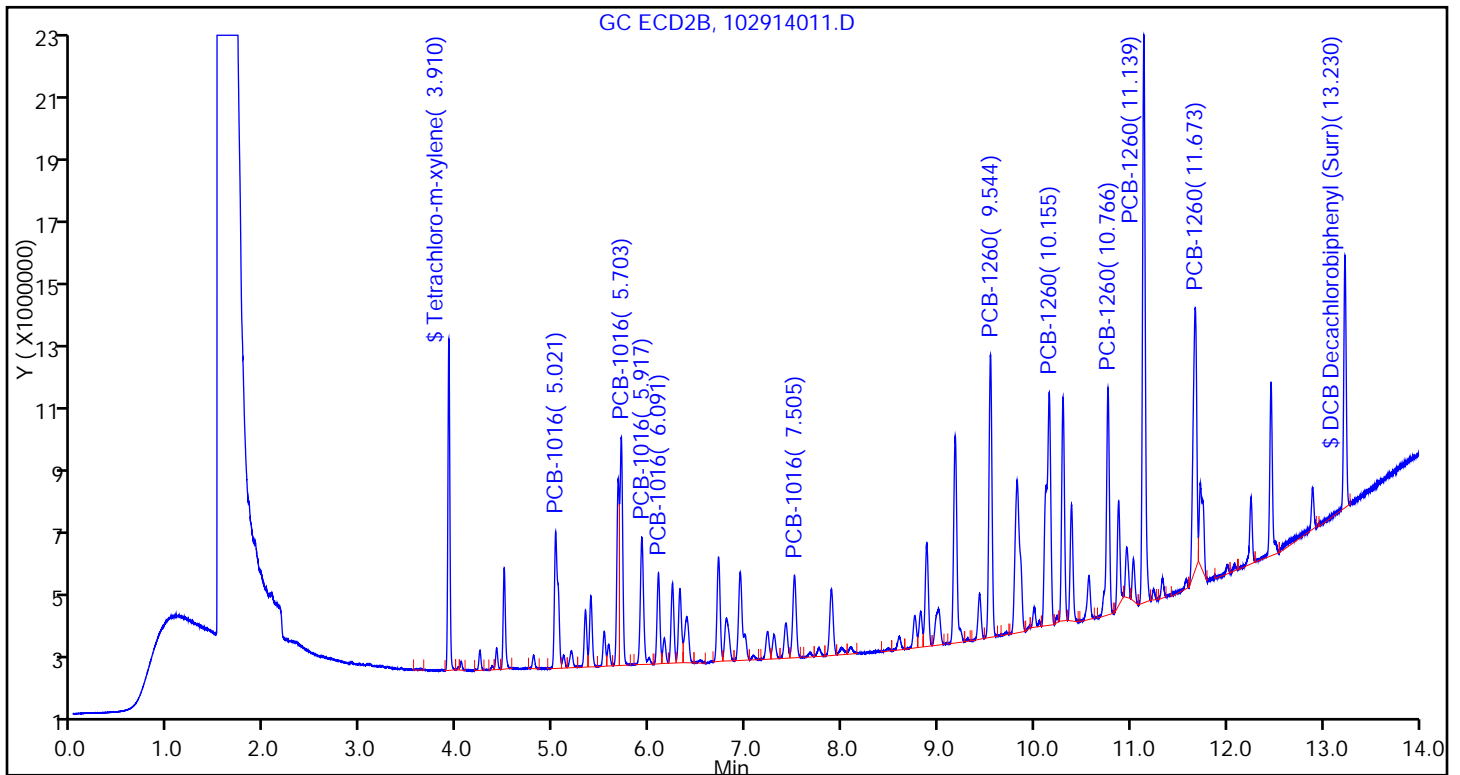
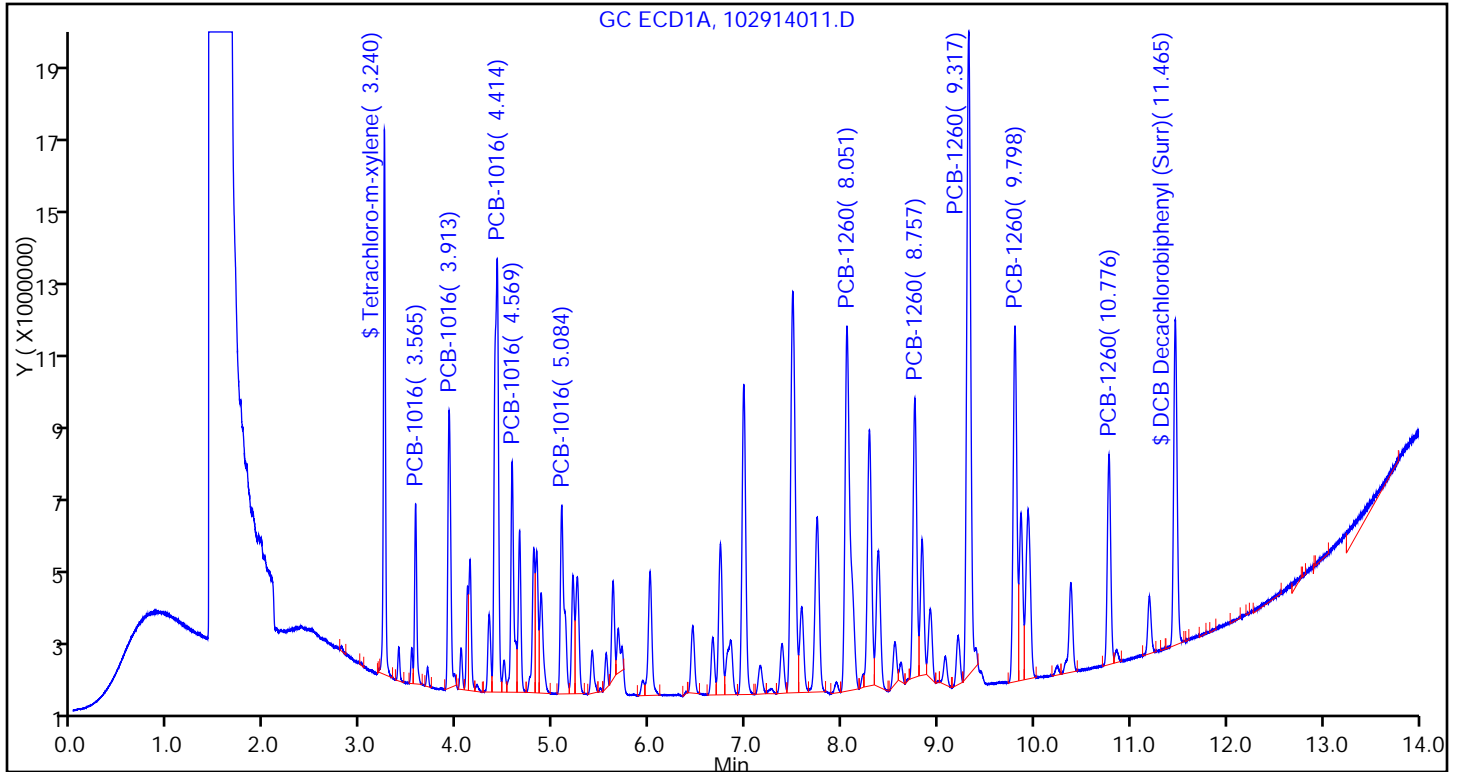
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914012.D  
 Lims ID: ICRT  
 Client ID:  
 Sample Type: ICRT Calib Level: 4  
 Inject. Date: 29-Oct-2014 11:25:06 ALS Bottle#: 11 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-010  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:57:55 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

First Level Reviewer: guptaa

Date: 29-Oct-2014 15:16:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.242	3.242	0.000	37849259H	0.0250	0.0267
2	3.911	3.911	0.000	27332769H	0.0250	0.0265

RPD = 1.01

## 4 PCB-1016

1	3.566	3.566	0.000	11960232H	0.5000	0.5179
1	3.915	3.915	0.000	18414813H	0.5000	0.5124
1	4.414	4.414	0.000	29782990H	0.5000	0.5271
1	4.570	4.570	0.000	15723287H	0.5000	0.5285
1	5.086	5.086	0.000	12591218H	0.5000	0.5286

Average of Peak Amounts = 0.5229

2	5.022	5.022	0.000	10810335H	0.5000	0.5106
2	5.705	5.705	0.000	18182027H	0.5000	0.5234
2	5.920	5.920	0.000	10225761H	0.5000	0.5039
2	6.091	6.091	0.000	7310314H	0.5000	0.5093
2	7.505	7.505	0.000	6467792H	0.5000	0.4994

Average of Peak Amounts = 0.5093

RPD = 2.63

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914012.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.054	8.054	0.000	24599515H	0.5000	0.5345	
1	8.757	8.757	0.000	19610426H	0.5000	0.5325	
1	9.318	9.318	0.000	45263339H	0.5000	0.5158	
1	9.799	9.799	0.000	24773664H	0.5000	0.5132	
1	10.774	10.774	0.000	13924759H	0.5000	0.4988	

Average of Peak Amounts = 0.5190

2	9.543	9.543	0.000	23192539H	0.5000	0.5105	
2	10.155	10.155	0.000	18854044H	0.5000	0.5119	
2	10.766	10.766	0.000	18597564H	0.5000	0.5095	
2	11.139	11.139	0.000	47540557H	0.5000	0.5172	
2	11.673	11.673	0.000	22433809H	0.5000	0.5244	

Average of Peak Amounts = 0.5147

RPD = 0.82

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.469	11.469	0.000	21916546H	0.0250	0.0250	
2	13.231	13.231	0.000	21136918H	0.0250	0.0256	

RPD = 2.29

## Reagents:

GCAR1660CALL4\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914012.D

Injection Date: 29-Oct-2014 11:25:06

Instrument ID: CHGC16

Lims ID: ICRT

Client ID:

Operator ID: 402331

ALS Bottle#: 11

Worklist Smp#: 10

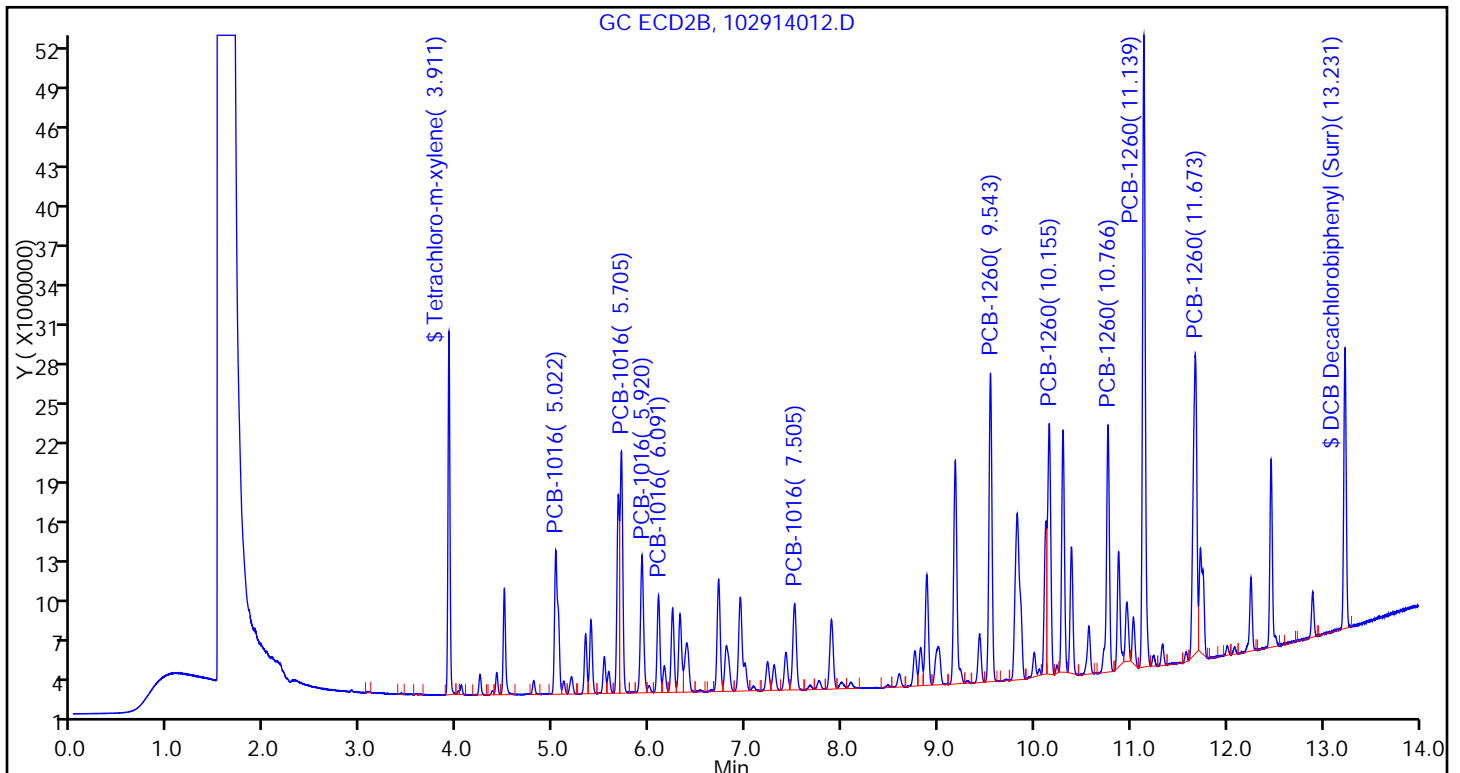
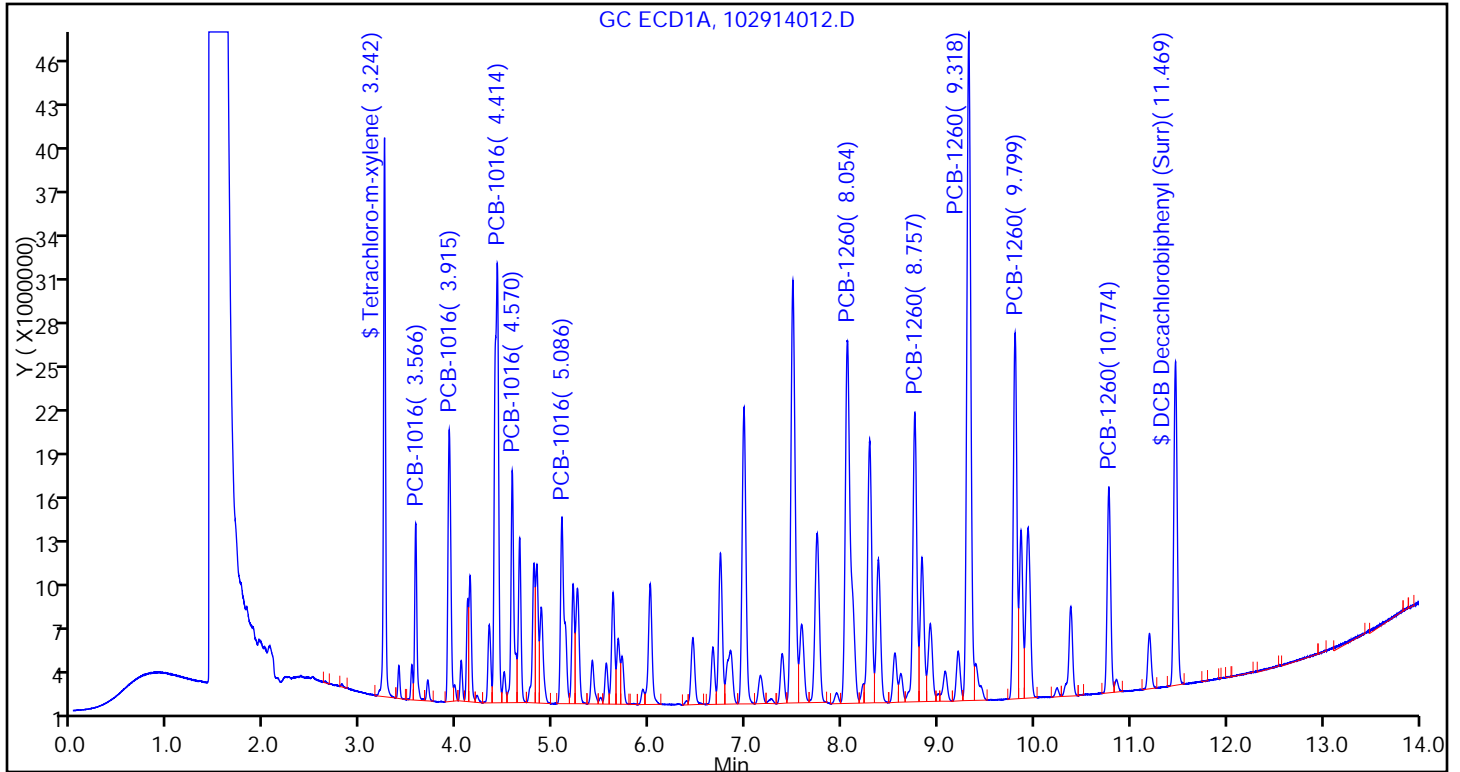
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914013.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 29-Oct-2014 11:44:23 ALS Bottle#: 12 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-011  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:57:51 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D

Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.243	3.242	0.001	72906172H	0.0500	0.0515	
2	3.912	3.911	0.001	52127794H	0.0500	0.0505	

RPD = 2.01

## 4 PCB-1016

1	3.566	3.566	0.000	23371843H	1.00	1.01	
1	3.915	3.915	0.000	35701307H	1.00	0.99	
1	4.415	4.414	0.001	57923745H	1.00	1.03	
1	4.571	4.570	0.001	30087864H	1.00	1.01	
1	5.087	5.086	0.001	24563315H	1.00	1.03	
Average of Peak Amounts =						1.01	
2	5.023	5.022	0.001	20565843H	1.00	0.9714	
2	5.706	5.705	0.001	35781753H	1.00	1.03	
2	5.920	5.920	0.000	19732383H	1.00	0.9723	
2	6.092	6.091	0.001	14229860H	1.00	0.99	
2	7.505	7.505	0.000	12775142H	1.00	0.9864	
Average of Peak Amounts =						0.99	

RPD = 2.43

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914013.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## 8 PCB-1260

1	8.054	8.054	0.000	47831940H	1.00	1.04	
1	8.756	8.757	-0.001	37976261H	1.00	1.03	
1	9.318	9.318	0.000	89989024H	1.00	1.03	
1	9.799	9.799	0.000	49350068H	1.00	1.02	
1	10.776	10.774	0.002	28016177H	1.00	1.00	

Average of Peak Amounts =

1.02

2	9.544	9.543	0.001	46154265H	1.00	1.02	
2	10.156	10.155	0.001	37114153H	1.00	1.01	
2	10.766	10.766	0.000	37879117H	1.00	1.04	
2	11.139	11.139	0.000	95239602H	1.00	1.04	
2	11.675	11.673	0.002	45217560H	1.00	1.06	

Average of Peak Amounts =

1.03

RPD = 0.64

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.466	11.469	-0.003	43732126H	0.0500	0.0499	
2	13.230	13.231	-0.001	43232614H	0.0500	0.0524	

RPD = 4.76

## Reagents:

GCAR1660CALL5\_00009

Amount Added: 1.00

Units: mL



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914013.D

Injection Date: 29-Oct-2014 11:44:23

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 12

Worklist Smp#: 11

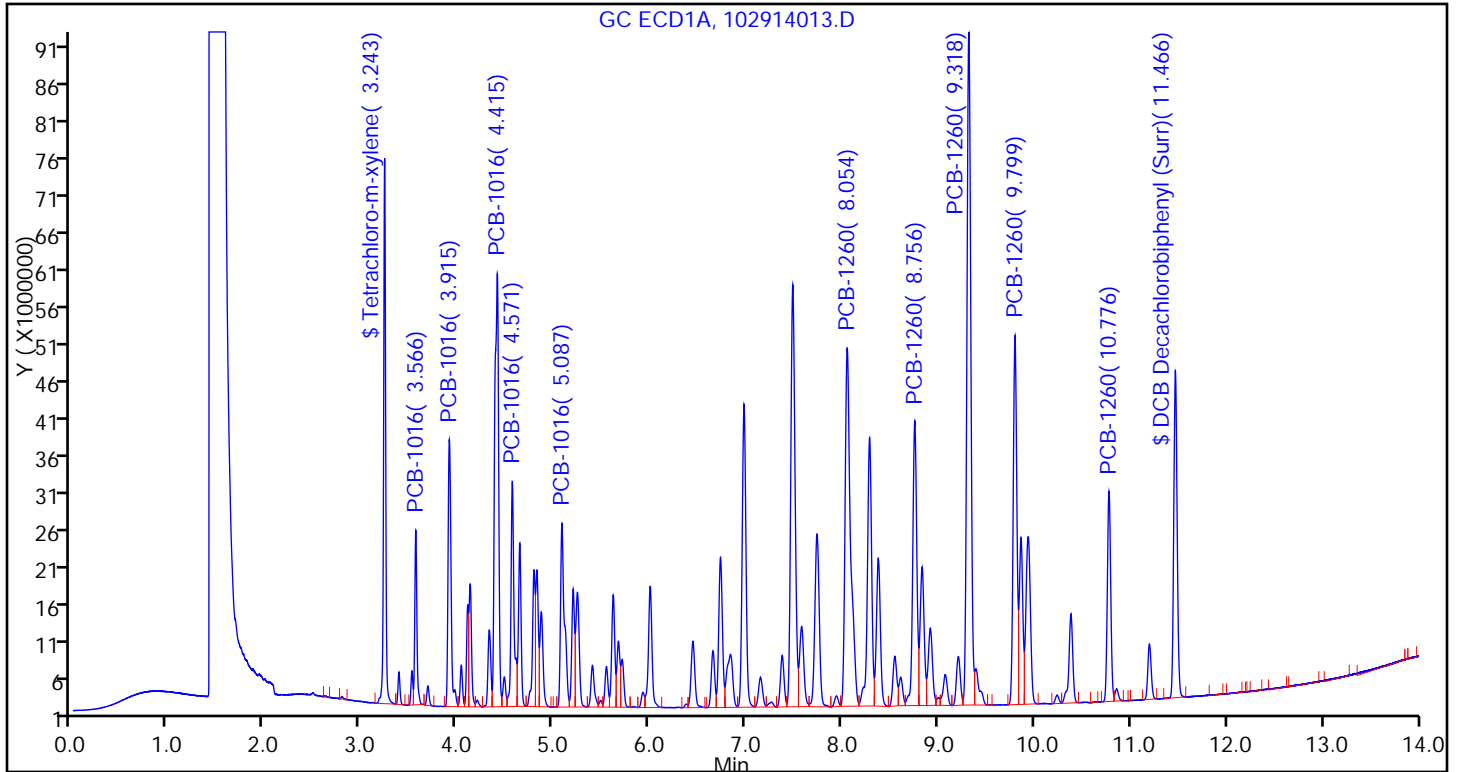
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

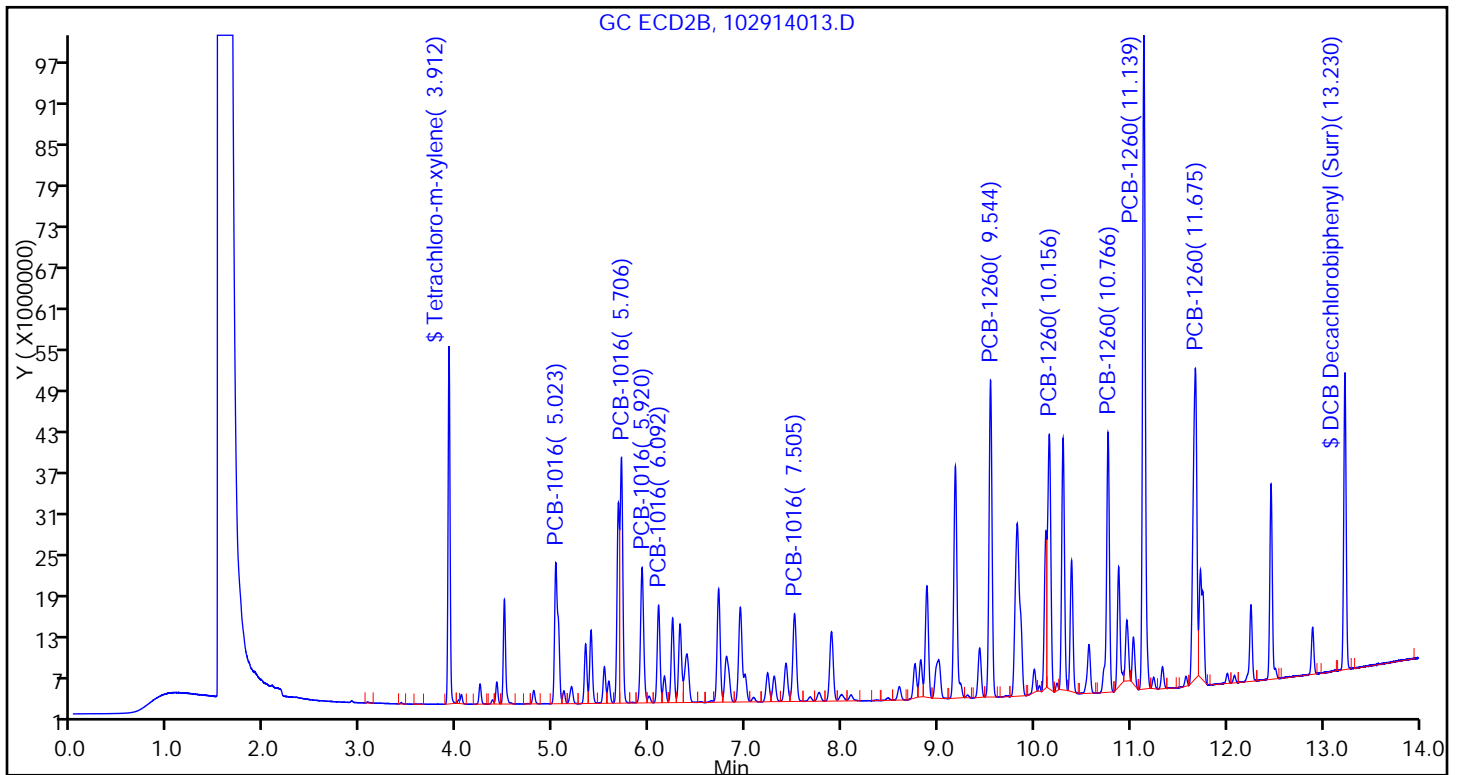
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914014.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 29-Oct-2014 12:03:08 ALS Bottle#: 13 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-012  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:57:47 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.241	3.242	-0.001	144298222H	0.1000	0.1019
2	3.911	3.911	0.000	103286776H	0.1000	0.1000

RPD = 1.90

## 4 PCB-1016

1	3.564	3.566	-0.002	46111208H	2.00	2.00
1	3.912	3.915	-0.003	69038204H	2.00	1.92
1	4.411	4.414	-0.003	113433848H	2.00	2.01
1	4.567	4.570	-0.003	59247277H	2.00	1.99
1	5.082	5.086	-0.004	47018491H	2.00	1.97
Average of Peak Amounts =						1.98
2	5.022	5.022	0.000	40343406H	2.00	1.91
2	5.704	5.705	-0.001	69719138H	2.00	2.01
2	5.917	5.920	-0.003	38991811H	2.00	1.92
2	6.090	6.091	-0.001	27947119H	2.00	1.95
2	7.503	7.505	-0.002	24714397H	2.00	1.91

Average of Peak Amounts =

1.94

RPD = 2.06

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914014.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.047	8.054	-0.007	95198000H	2.00	2.07	
1	8.751	8.757	-0.006	74480083H	2.00	2.02	
1	9.309	9.318	-0.009	182557562H	2.00	2.08	
1	9.793	9.799	-0.006	97276827H	2.00	2.02	
1	10.772	10.774	-0.002	55520824H	2.00	1.99	

Average of Peak Amounts = 2.04

2	9.542	9.543	-0.001	89815228H	2.00	1.98	
2	10.154	10.155	-0.001	73884140H	2.00	2.01	
2	10.765	10.766	-0.001	72862034H	2.00	2.00	
2	11.138	11.139	-0.001	189378660H	2.00	2.06	
2	11.674	11.673	0.001	92960126H	2.00	2.17	

Average of Peak Amounts = 2.04

RPD = 0.37

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.464	11.469	-0.005	82886356H	0.1000	0.0946	
2	13.231	13.231	0.000	84452147H	0.1000	0.1023	

RPD = 7.78

## Reagents:

GCAR1660CALL6\_00007

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914014.D

Injection Date: 29-Oct-2014 12:03:08

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 13

Worklist Smp#: 12

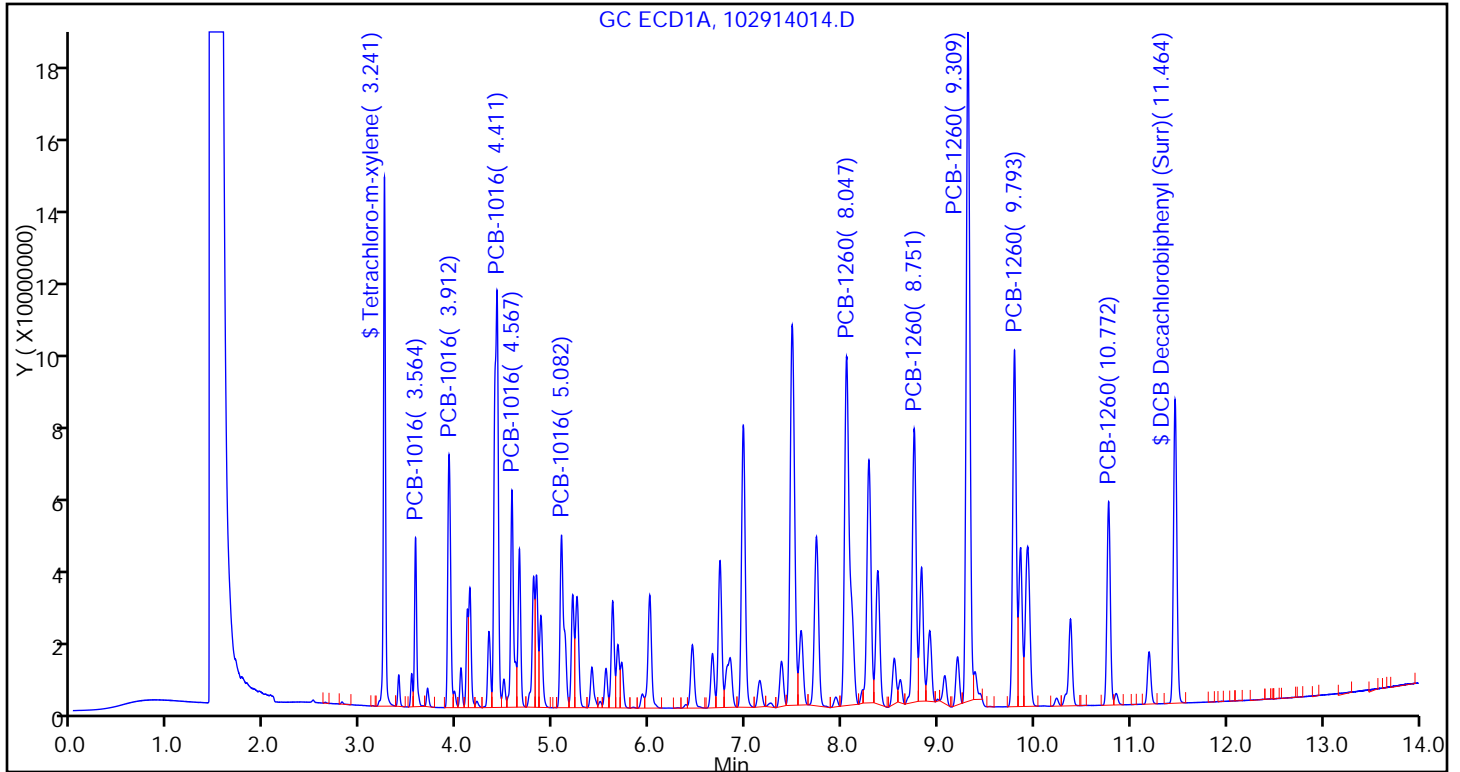
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

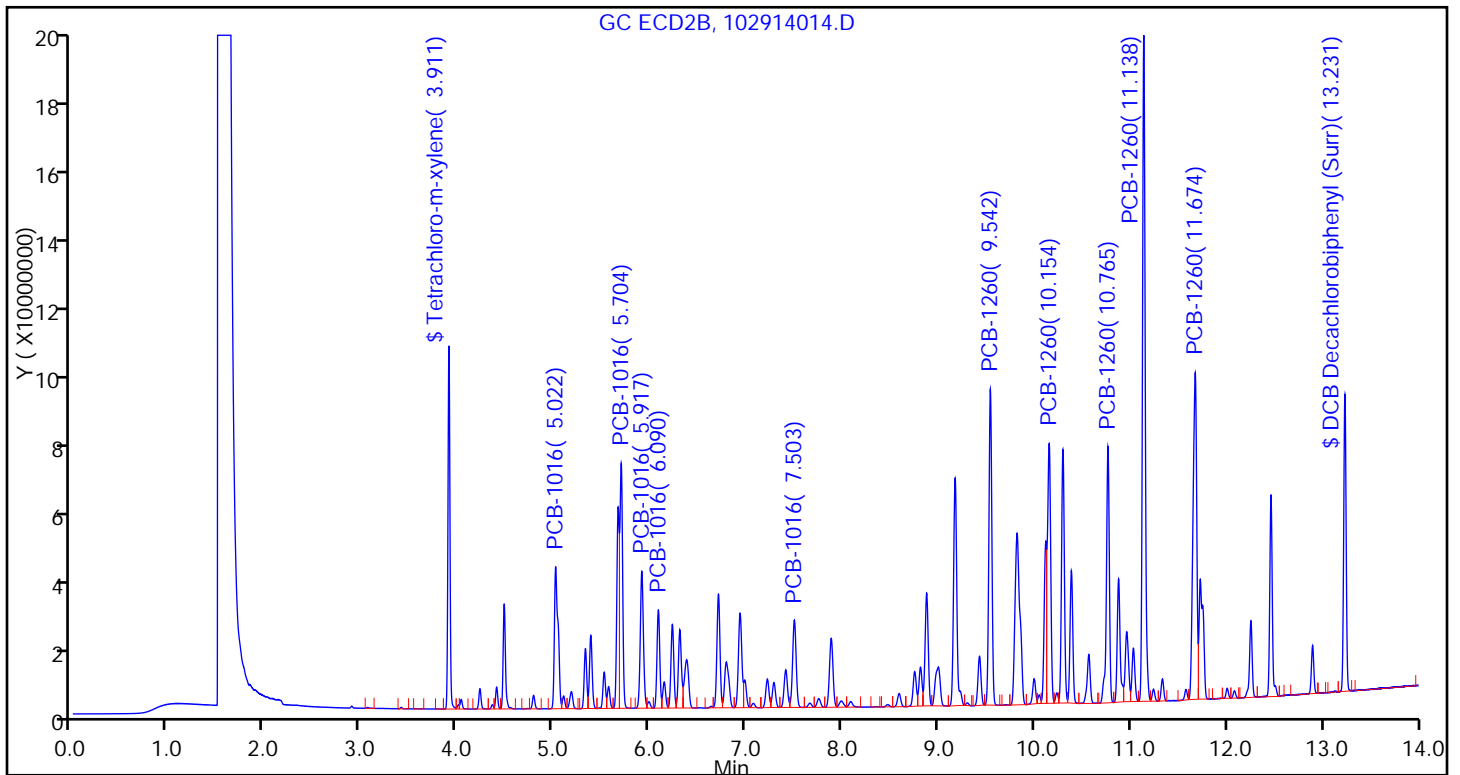
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Lims ID: IC  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 29-Oct-2014 12:22:21 ALS Bottle#: 14 Worklist Smp#: 13  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004073-013  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 30-Oct-2014 05:57:43 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D

Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK015

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## \$ 1 Tetrachloro-m-xylene

1	3.246	3.242	0.004	265642857H	0.2000	0.1876
2	3.915	3.911	0.004	193123897H	0.2000	0.1870

RPD = 0.34

## 4 PCB-1016

1	3.570	3.566	0.004	85270977H	4.00	3.69
1	3.919	3.915	0.004	128301948H	4.00	3.57
1	4.417	4.414	0.003	210820749H	4.00	3.73
1	4.572	4.570	0.002	111818128H	4.00	3.76
1	5.086	5.086	0.000	89401788H	4.00	3.75

Average of Peak Amounts = 3.70

2	5.024	5.022	0.002	75349116H	4.00	3.56
2	5.707	5.705	0.002	128620945H	4.00	3.70
2	5.920	5.920	0.000	71736323H	4.00	3.53
2	6.093	6.091	0.002	51591814H	4.00	3.59
2	7.507	7.505	0.002	46048479H	4.00	3.56

Average of Peak Amounts = 3.59

RPD = 3.07

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.054	8.054	0.000	174382534H	4.00	3.79	
1	8.757	8.757	0.000	131792532H	4.00	3.58	
1	9.318	9.318	0.000	325162394H	4.00	3.71	
1	9.798	9.799	-0.001	186020325H	4.00	3.85	
1	10.775	10.774	0.001	105956878H	4.00	3.80	

Average of Peak Amounts = 3.74

2	9.545	9.543	0.002	166507106H	4.00	3.66	
2	10.155	10.155	0.000	139767676H	4.00	3.80	
2	10.768	10.766	0.002	137590198H	4.00	3.77	
2	11.140	11.139	0.001	362574247H	4.00	3.94	
2	11.676	11.673	0.003	175517622H	4.00	4.10	

Average of Peak Amounts = 3.86

RPD = 2.92

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.466	11.469	-0.003	158795042H	0.2000	0.1813	
2	13.231	13.231	0.000	165125113H	0.2000	0.2000	

RPD = 9.81

## Reagents:

GCAR1660CALL7\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D

Injection Date: 29-Oct-2014 12:22:21

Instrument ID: CHGC16

Lims ID: IC

Client ID:

Operator ID: 402331

ALS Bottle#: 14

Worklist Smp#: 13

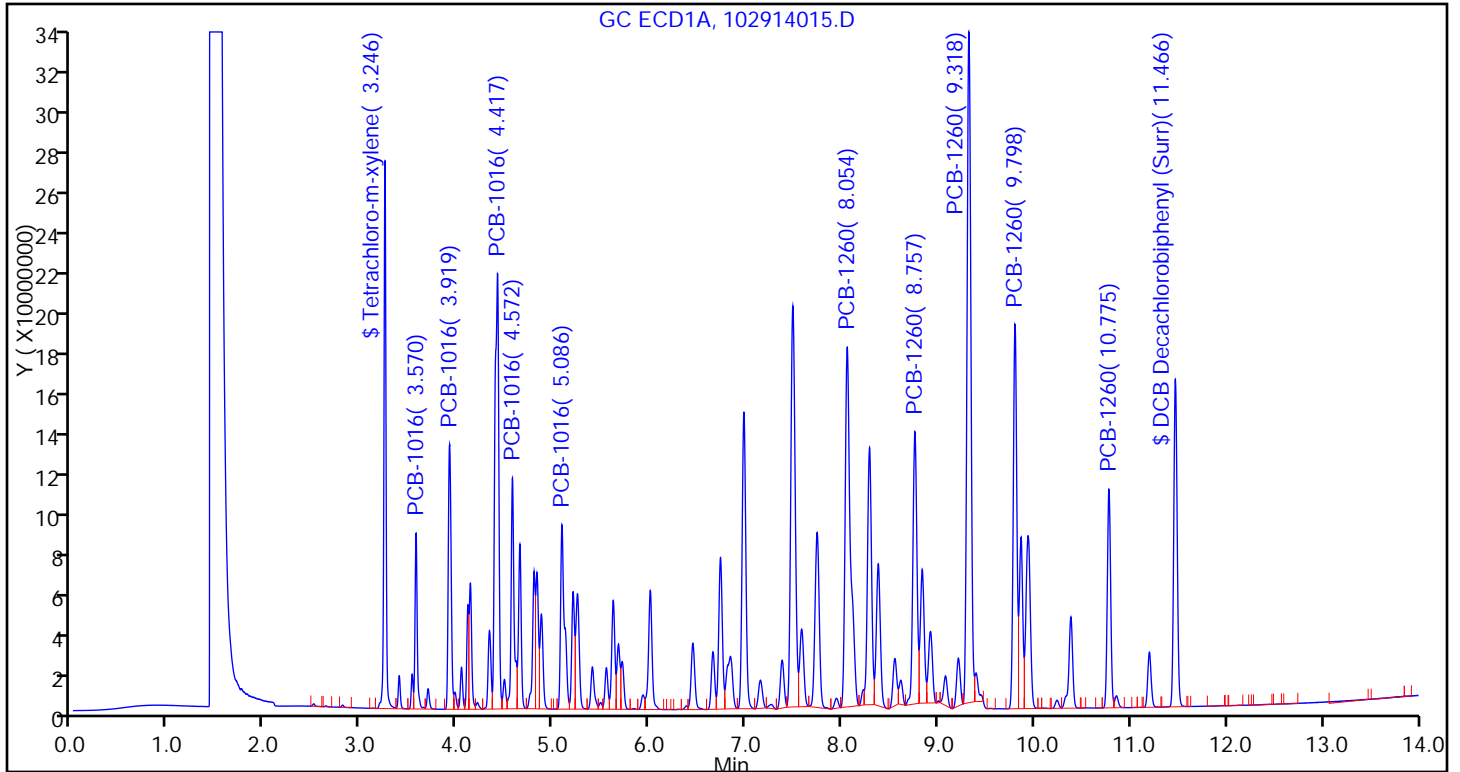
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

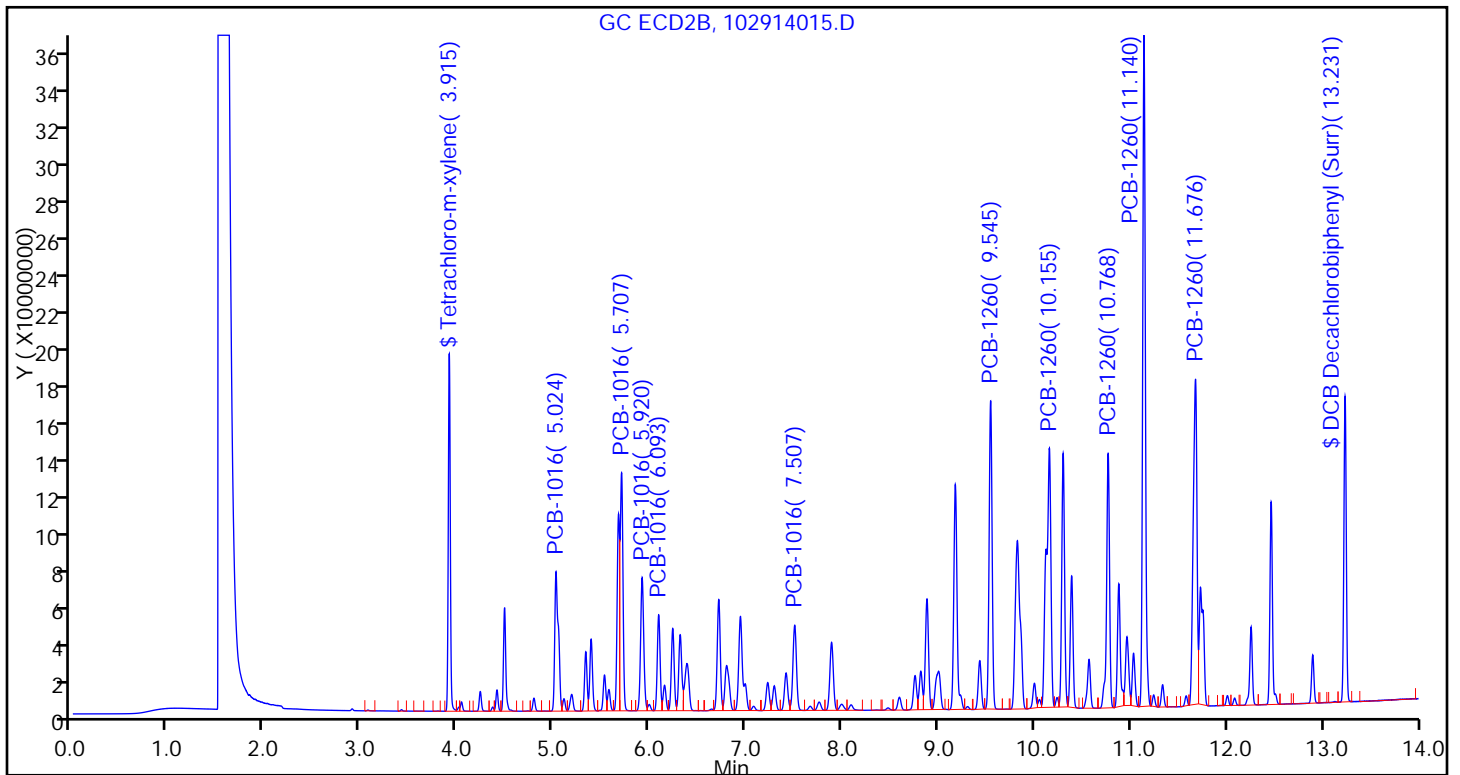
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVRT 180-123252/1 Calibration Date: 10/30/2014 06:42  
 Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
 GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
 Lab File ID: 103014001.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	21171157	19157968		0.452	0.500	-9.5	20.0
PCB-1016 Peak 2	Ave	34738329	32680202		0.470	0.500	-5.9	20.0
PCB-1016 Peak 3	Ave	20294869	17838696		0.439	0.500	-12.1	20.0
PCB-1016 Peak 4	Ave	14353894	12620340		0.440	0.500	-12.1	20.0
PCB-1016 Peak 5	Ave	12951079	11195694		0.432	0.500	-13.6	20.0
PCB-1260 Peak 1	Ave	45434544	40612606		0.447	0.500	-10.6	20.0
PCB-1260 Peak 2	Ave	36829086	32964444		0.448	0.500	-10.5	20.0
PCB-1260 Peak 3	Ave	36498776	33730378		0.462	0.500	-7.6	20.0
PCB-1260 Peak 4	Ave	91912991	88962508		0.484	0.500	-3.2	20.0
PCB-1260 Peak 5	Ave	42780108	40670158		0.475	0.500	-4.9	20.0
Tetrachloro-m-xylene (Surr)	Ave	1032953155	914575720		0.0221	0.0250	-11.5	20.0
DCB Decachlorobiphenyl (Surr)	Ave	825552205	856714440		0.0259	0.0250	3.8	20.0



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVRT 180-123252/1 Calibration Date: 10/30/2014 06:42  
 Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
 GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
 Lab File ID: 103014001.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.03	4.98	5.08
PCB-1016 Peak 2	5.71	5.66	5.76
PCB-1016 Peak 3	5.93	5.88	5.98
PCB-1016 Peak 4	6.10	6.05	6.15
PCB-1016 Peak 5	7.52	7.47	7.57
PCB-1260 Peak 1	9.55	9.50	9.60
PCB-1260 Peak 2	10.16	10.11	10.21
PCB-1260 Peak 3	10.77	10.72	10.82
PCB-1260 Peak 4	11.15	11.10	11.20
PCB-1260 Peak 5	11.68	11.63	11.73
Tetrachloro-m-xylene (Surr)	3.92	3.87	3.97
DCB Decachlorobiphenyl (Surr)	13.23	13.16	13.30

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014001.D  
 Lims ID: CCVRT  
 Client ID:  
 Sample Type: CCVRT  
 Inject. Date: 30-Oct-2014 06:42:24 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004088-001  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:25:06 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj Date: 30-Oct-2014 07:05:17

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 1 Tetrachloro-m-xylene

1	3.249	3.249	0.000	32858488H	0.0250	0.0232
2	3.918	3.918	0.000	22864393H	0.0250	0.0221

RPD = 4.72

4 PCB-1016

1	3.574	3.574	0.000	10482614H	0.5000	0.4539
1	3.923	3.923	0.000	15927610H	0.5000	0.4432
1	4.426	4.426	0.000	26520923H	0.5000	0.4694
1	4.582	4.582	0.000	13963833H	0.5000	0.4694
1	5.099	5.099	0.000	11368545H	0.5000	0.4773

Average of Peak Amounts = 0.4626

2	5.030	5.030	0.000	9578984H	0.5000	0.4525
2	5.713	5.713	0.000	16340101H	0.5000	0.4704
2	5.929	5.929	0.000	8919348H	0.5000	0.4395
2	6.100	6.100	0.000	6310170H	0.5000	0.4396
2	7.517	7.517	0.000	5597847H	0.5000	0.4322

Average of Peak Amounts = 0.4468

RPD = 3.47

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014001.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.085	8.085	0.000	19756569H	0.5000	0.4293	
1	8.784	8.784	0.000	15680614H	0.5000	0.4258	
1	9.343	9.343	0.000	38689182H	0.5000	0.4408	
1	9.818	9.818	0.000	20307448H	0.5000	0.4207	
1	10.792	10.792	0.000	11931012H	0.5000	0.4274	

Average of Peak Amounts = 0.4288

2	9.552	9.552	0.000	20306303H	0.5000	0.4469	
2	10.164	10.164	0.000	16482222H	0.5000	0.4475	
2	10.773	10.773	0.000	16865189H	0.5000	0.4621	
2	11.146	11.146	0.000	44481254H	0.5000	0.4839	
2	11.681	11.681	0.000	20335079H	0.5000	0.4753	

Average of Peak Amounts = 0.4632

RPD = 7.71

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.481	11.481	0.000	19193921H	0.0250	0.0219	
2	13.234	13.234	0.000	21417861H	0.0250	0.0259	

RPD = 16.83

## Reagents:

GCAR1660CALL4\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014001.D

Injection Date: 30-Oct-2014 06:42:24

Instrument ID: CHGC16

Lims ID: CCVRT

Client ID:

Operator ID: 402331

ALS Bottle#: 1

Worklist Smp#: 1

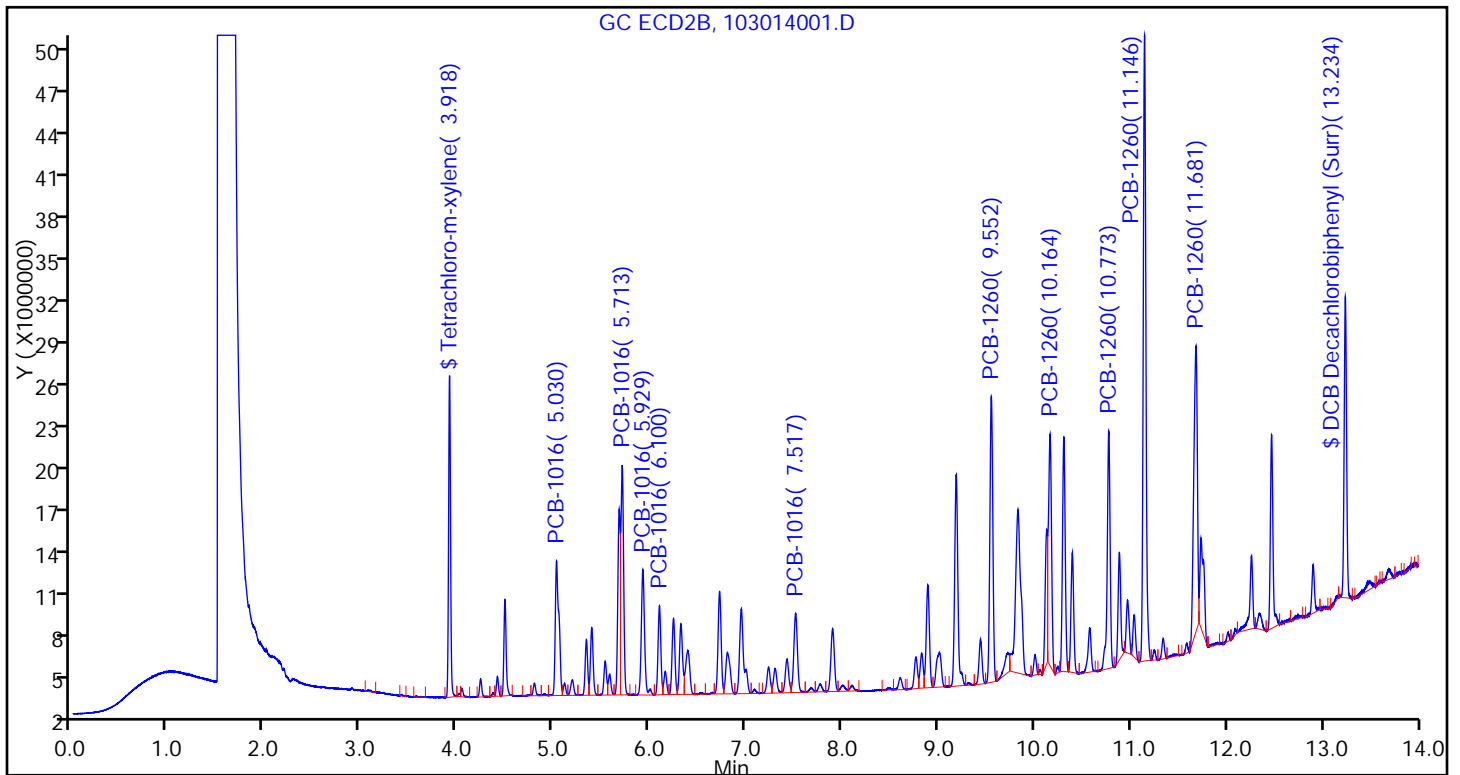
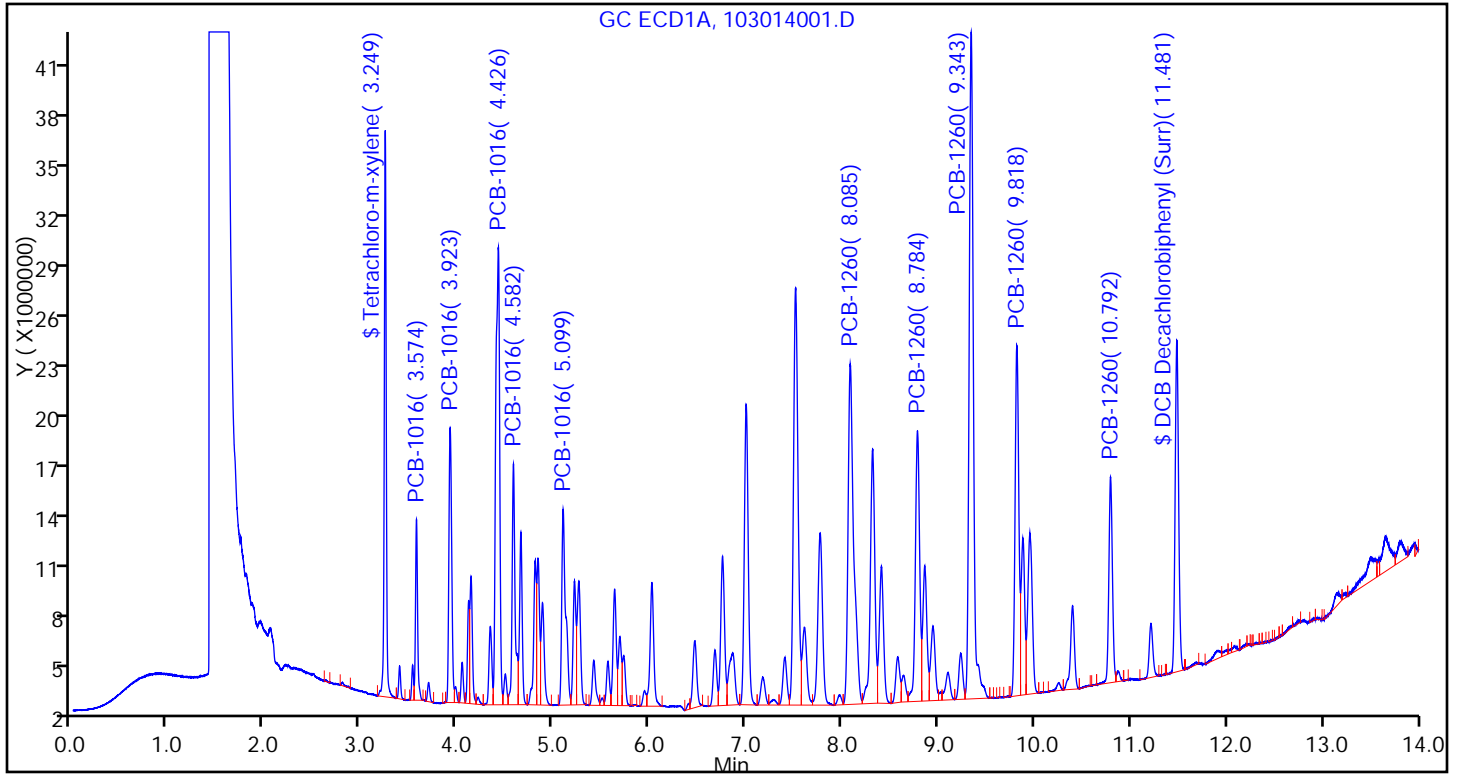
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-123252/14 Calibration Date: 10/30/2014 10:51  
 Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
 GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
 Lab File ID: 103014014.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	21171157	18210008		0.430	0.500	-14.0	20.0
PCB-1016 Peak 2	Ave	34738329	30694454		0.442	0.500	-11.6	20.0
PCB-1016 Peak 3	Ave	20294869	16882380		0.416	0.500	-16.8	20.0
PCB-1016 Peak 4	Ave	14353894	12075058		0.421	0.500	-15.9	20.0
PCB-1016 Peak 5	Ave	12951079	11095500		0.428	0.500	-14.3	20.0
PCB-1260 Peak 1	Ave	45434544	40185426		0.442	0.500	-11.6	20.0
PCB-1260 Peak 2	Ave	36829086	33684644		0.457	0.500	-8.5	20.0
PCB-1260 Peak 3	Ave	36498776	33626198		0.461	0.500	-7.9	20.0
PCB-1260 Peak 4	Ave	91912991	90543742		0.493	0.500	-1.5	20.0
PCB-1260 Peak 5	Ave	42780108	41190646		0.481	0.500	-3.7	20.0
Tetrachloro-m-xylene (Surr)	Ave	1032953155	927952720		0.0225	0.0250	-10.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	825552205	859570360		0.0260	0.0250	4.1	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: CCV 180-123252/14 Calibration Date: 10/30/2014 10:51  
Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
Lab File ID: 103014014.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.03	4.98	5.08
PCB-1016 Peak 2	5.71	5.66	5.76
PCB-1016 Peak 3	5.92	5.87	5.97
PCB-1016 Peak 4	6.09	6.04	6.14
PCB-1016 Peak 5	7.51	7.46	7.56
PCB-1260 Peak 1	9.55	9.50	9.60
PCB-1260 Peak 2	10.16	10.11	10.21
PCB-1260 Peak 3	10.77	10.72	10.82
PCB-1260 Peak 4	11.14	11.09	11.19
PCB-1260 Peak 5	11.68	11.63	11.73
Tetrachloro-m-xylene (Surr)	3.91	3.86	3.96
DCB Decachlorobiphenyl (Surr)	13.23	13.16	13.30

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014014.D  
 Lims ID: CCV  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 30-Oct-2014 10:51:51 ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004088-014  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:24:22 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D

Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.244	3.244	0.000	33199149H	0.0250	0.0234	
2	3.913	3.913	0.000	23198818H	0.0250	0.0225	

RPD = 4.30

## 4 PCB-1016

1	3.567	3.567	0.000	10486145H	0.5000	0.4541	
1	3.917	3.917	0.000	16206432H	0.5000	0.4510	
1	4.418	4.418	0.000	26314045H	0.5000	0.4657	
1	4.572	4.572	0.000	13953893H	0.5000	0.4690	
1	5.089	5.089	0.000	11199682H	0.5000	0.4702	

Average of Peak Amounts = 0.4620

2	5.025	5.025	0.000	9105004H	0.5000	0.4301	
2	5.707	5.707	0.000	15347227H	0.5000	0.4418	
2	5.921	5.921	0.000	8441190H	0.5000	0.4159	
2	6.093	6.093	0.000	6037529H	0.5000	0.4206	
2	7.510	7.510	0.000	5547750H	0.5000	0.4284	

Average of Peak Amounts = 0.4274

RPD = 7.79

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014014.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.069	8.069	0.000	19668342H	0.5000	0.4273	
1	8.773	8.773	0.000	16395928H	0.5000	0.4453	
1	9.332	9.332	0.000	39286268H	0.5000	0.4476	
1	9.810	9.810	0.000	20246084H	0.5000	0.4194	
1	10.786	10.786	0.000	11491767H	0.5000	0.4116	

Average of Peak Amounts = 0.4303

2	9.547	9.547	0.000	20092713H	0.5000	0.4422	
2	10.158	10.158	0.000	16842322H	0.5000	0.4573	
2	10.768	10.768	0.000	16813099H	0.5000	0.4606	
2	11.142	11.142	0.000	45271871H	0.5000	0.4926	
2	11.675	11.675	0.000	20595323H	0.5000	0.4814	

Average of Peak Amounts = 0.4668

RPD = 8.15

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.476	11.476	0.000	18831305H	0.0250	0.0215	
2	13.230	13.230	0.000	21489259H	0.0250	0.0260	

RPD = 19.05

## Reagents:

GCAR1660CALL4\_00008

Amount Added: 1.00

Units: mL



## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014014.D

Injection Date: 30-Oct-2014 10:51:51

Instrument ID: CHGC16

Lims ID: CCV

Client ID:

Operator ID: 402331

ALS Bottle#: 14

Worklist Smp#: 14

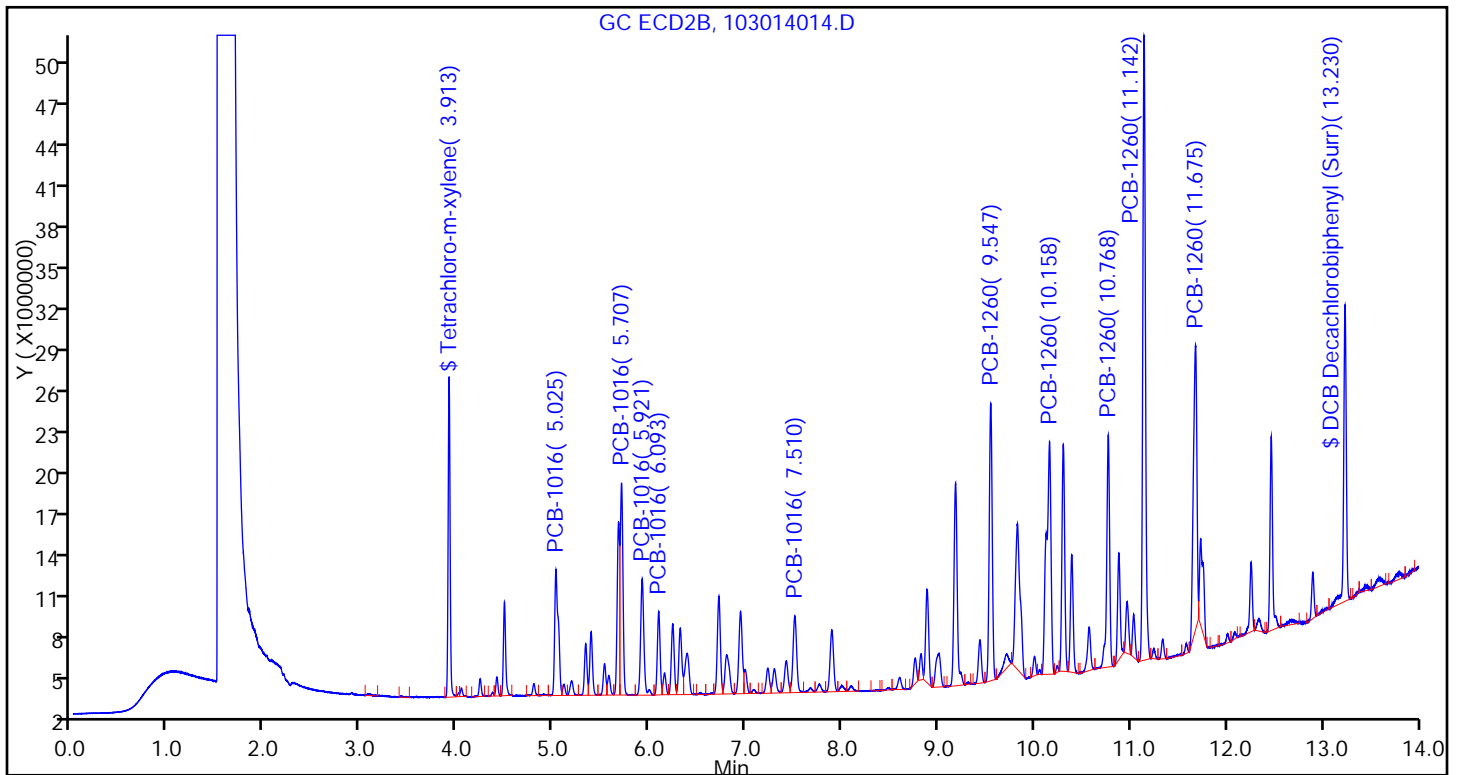
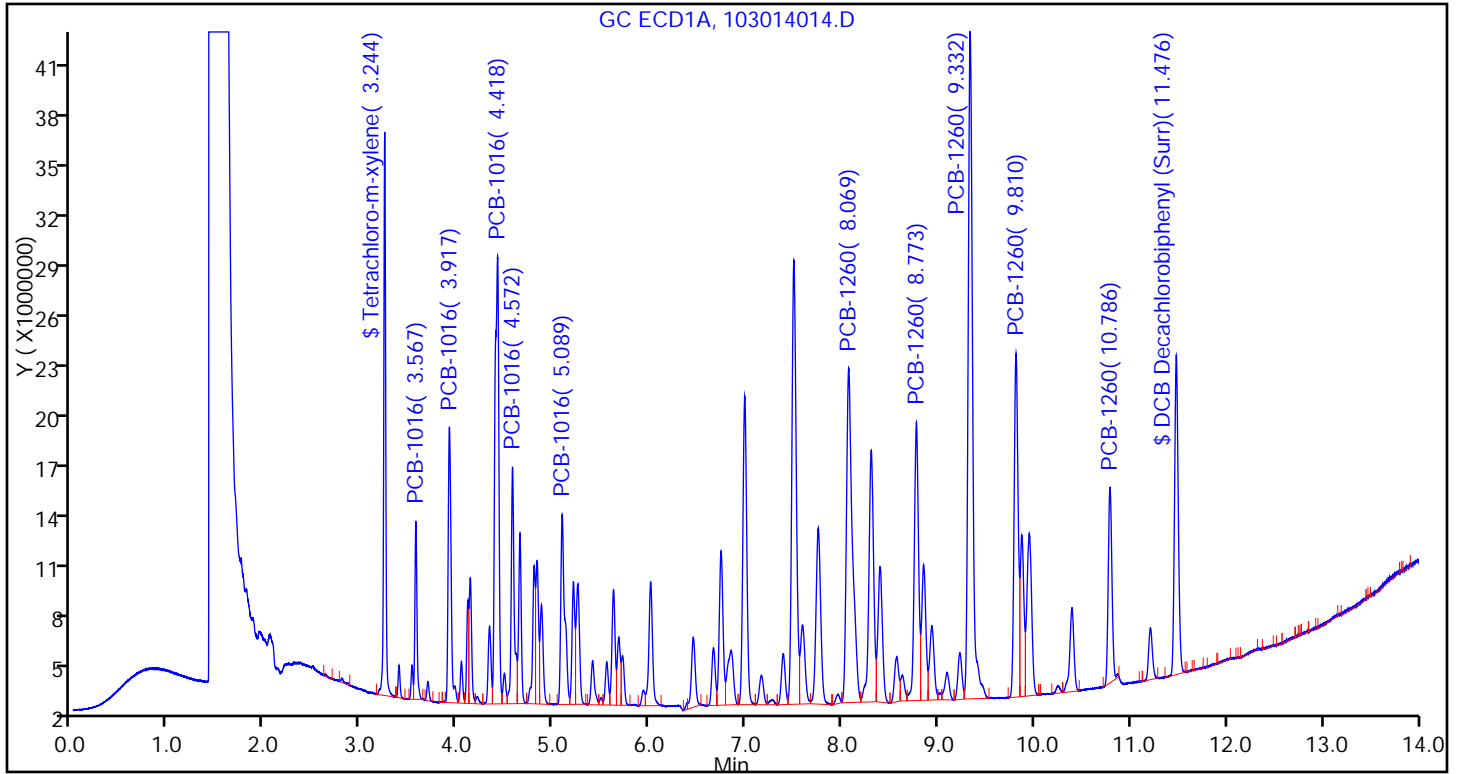
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



FORM VII  
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-123252/32 Calibration Date: 10/30/2014 16:38  
 Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
 GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
 Lab File ID: 103014032.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	21171157	19241848		0.454	0.500	-9.1	20.0
PCB-1016 Peak 2	Ave	34738329	35043452		0.504	0.500	0.9	20.0
PCB-1016 Peak 3	Ave	20294869	18991802		0.468	0.500	-6.4	20.0
PCB-1016 Peak 4	Ave	14353894	13652306		0.476	0.500	-4.9	20.0
PCB-1016 Peak 5	Ave	12951079	12252438		0.473	0.500	-5.4	20.0
PCB-1260 Peak 1	Ave	45434544	43689724		0.481	0.500	-3.8	20.0
PCB-1260 Peak 2	Ave	36829086	33938834		0.461	0.500	-7.8	20.0
PCB-1260 Peak 3	Ave	36498776	34923570		0.478	0.500	-4.3	20.0
PCB-1260 Peak 4	Ave	91912991	93109526		0.507	0.500	1.3	20.0
PCB-1260 Peak 5	Ave	42780108	42483544		0.497	0.500	-0.7	20.0
Tetrachloro-m-xylene (Surr)	Ave	1032953155	978840040		0.0237	0.0250	-5.2	20.0
DCB Decachlorobiphenyl (Surr)	Ave	825552205	792122880		0.0240	0.0250	-4.0	20.0

FORM VII  
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: CCV 180-123252/32 Calibration Date: 10/30/2014 16:38  
Instrument ID: CHGC16 Calib Start Date: 10/29/2014 10:27  
GC Column: RTX-CLP2 ID: 0.53 (mm) Calib End Date: 10/29/2014 12:22  
Lab File ID: 103014032.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.03	4.98	5.08
PCB-1016 Peak 2	5.72	5.67	5.77
PCB-1016 Peak 3	5.93	5.88	5.98
PCB-1016 Peak 4	6.10	6.05	6.15
PCB-1016 Peak 5	7.52	7.47	7.57
PCB-1260 Peak 1	9.56	9.51	9.61
PCB-1260 Peak 2	10.17	10.12	10.22
PCB-1260 Peak 3	10.78	10.73	10.83
PCB-1260 Peak 4	11.15	11.10	11.20
PCB-1260 Peak 5	11.68	11.63	11.73
Tetrachloro-m-xylene (Surr)	3.92	3.87	3.97
DCB Decachlorobiphenyl (Surr)	13.24	13.17	13.31

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014032.D  
 Lims ID: CCV  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 30-Oct-2014 16:38:54 ALS Bottle#: 32 Worklist Smp#: 32  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004088-032  
 Operator ID: 402331 Instrument ID: CHGC16  
 Sublist: chrom-PCB\_CHGC16\*sub8  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 31-Oct-2014 04:10:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## \$ 1 Tetrachloro-m-xylene

1	3.250	3.250	0.000	31487995H	0.0250	0.0222
2	3.918	3.918	0.000	24471001H	0.0250	0.0237

RPD = 6.32

## 4 PCB-1016

1	3.574	3.574	0.000	9956335H	0.5000	0.4311
1	3.923	3.923	0.000	15795198H	0.5000	0.4395
1	4.427	4.427	0.000	26840706H	0.5000	0.4751
1	4.582	4.582	0.000	13797770H	0.5000	0.4638
1	5.103	5.103	0.000	10981789H	0.5000	0.4611

Average of Peak Amounts = 0.4541

2	5.030	5.030	0.000	9620924H	0.5000	0.4544
2	5.715	5.715	0.000	17521726H	0.5000	0.5044
2	5.928	5.928	0.000	9495901H	0.5000	0.4679
2	6.101	6.101	0.000	6826153H	0.5000	0.4756
2	7.519	7.519	0.000	6126219H	0.5000	0.4730

Average of Peak Amounts = 0.4751

RPD = 4.51

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014032.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.128	8.128	0.000	12136089H	0.5000	0.2637	a
1	8.829	8.829	0.000	8717350H	0.5000	0.2367	a
1	9.398	9.398	0.000	18112535H	0.5000	0.2064	a
1	9.873	9.873	0.000	7747230H	0.5000	0.1605	a
1	10.847	10.847	0.000	4644599H	0.5000	0.1664	a

Average of Peak Amounts =

0.2067

2	9.556	9.556	0.000	21844862H	0.5000	0.4808	a
2	10.166	10.166	0.000	16969417H	0.5000	0.4608	a
2	10.775	10.775	0.000	17461785H	0.5000	0.4784	a
2	11.149	11.149	0.000	46554763H	0.5000	0.5065	
2	11.683	11.683	0.000	21241772H	0.5000	0.4965	a

Average of Peak Amounts =

0.4846

RPD = 80.39

## \$ 11 DCB Decachlorobiphenyl (Surr)

M

1	11.525	11.525	0.000	7731943H	0.0250	0.008828	
2	13.238	13.238	0.000	19803072H	0.0250	0.0240	

RPD = 92.39

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

GCAR1660CALL4\_00008

Amount Added: 1.00

Units: mL

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014032.D

Injection Date: 30-Oct-2014 16:38:54

Instrument ID: CHGC16

Lims ID: CCV

Client ID:

Operator ID: 402331

ALS Bottle#: 32

Worklist Smp#: 32

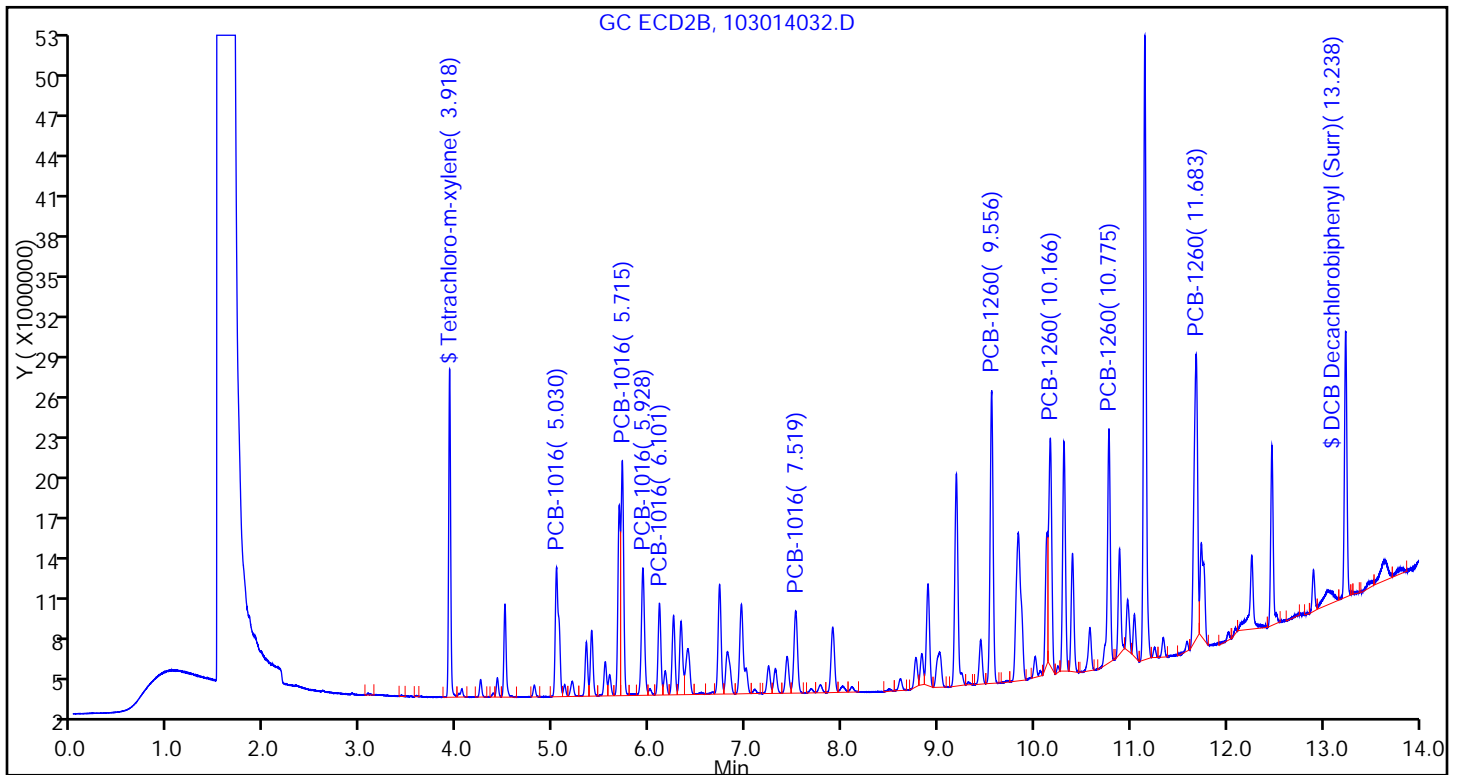
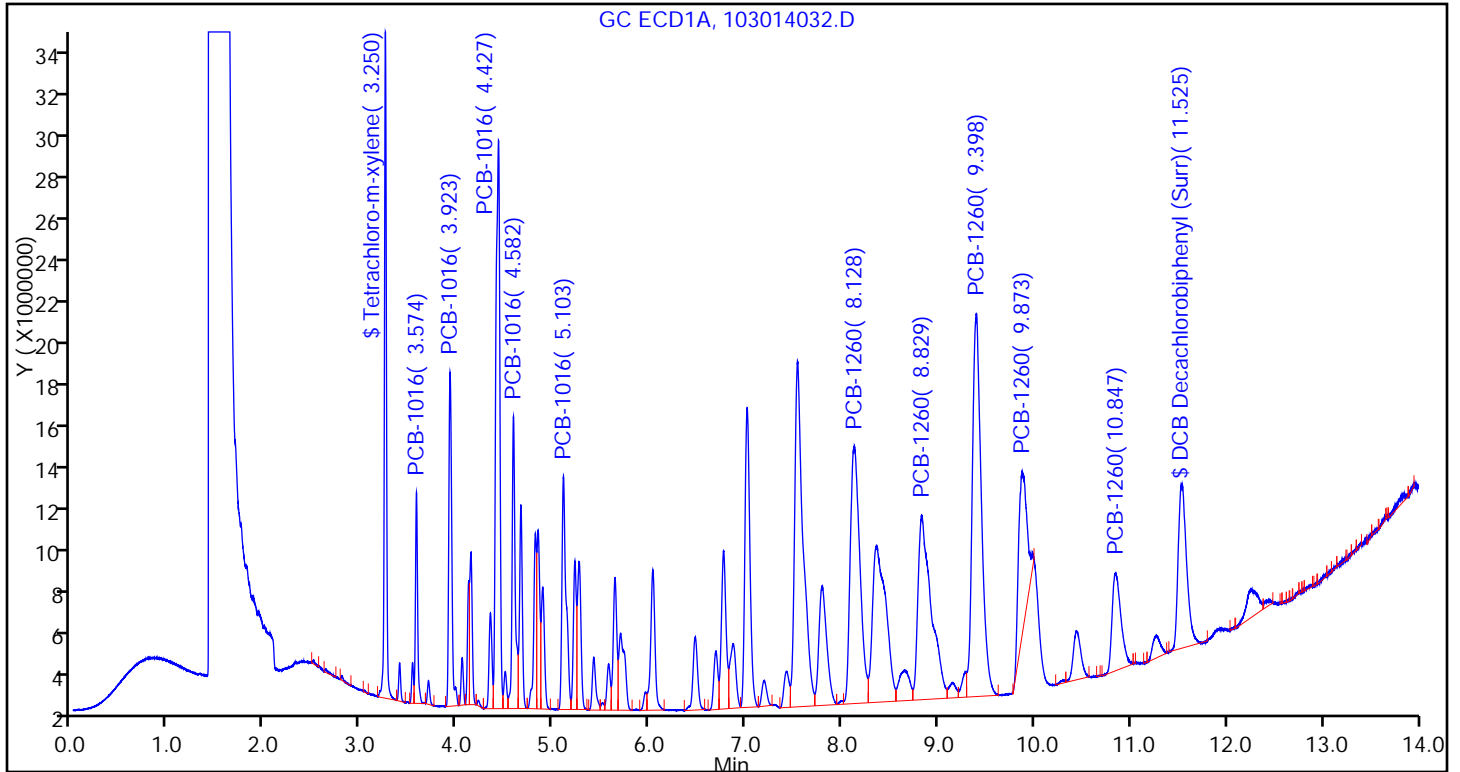
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-122691/1-C

Matrix: Sediment Lab File ID: 103014015.D

Analysis Method: 8082A Date Collected: \_\_\_\_\_

Extraction Method: 3541 Date Extracted: 10/25/2014 03:15

Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 11:11

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N

Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	ND		0.42	0.062
11104-28-2	PCB-1221	ND		0.42	0.080
11141-16-5	PCB-1232	ND		0.42	0.071
53469-21-9	PCB-1242	ND		0.42	0.068
12672-29-6	PCB-1248	ND		0.42	0.039
11097-69-1	PCB-1254	ND		0.42	0.059
11096-82-5	PCB-1260	ND		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	97		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	85		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014015.D  
 Lims ID: MB 180-122691/1-C  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 30-Oct-2014 11:11:09 ALS Bottle#: 15 Worklist Smp#: 15  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004088-015  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 2 PCB-1221

1		2.799				ND	
1		3.566					
1		3.391					
2		3.414				ND	
2		4.236					
2		4.487					

## \$ 1 Tetrachloro-m-xylene

1	3.243	3.244	-0.001	24205458H	0.0200	0.0171	
2	3.913	3.913	0.000	17576479H	0.0200	0.0170	
RPD = 0.46							

## 5 PCB-1232

1		3.391				ND	
1		3.566					
1		3.916					
1		4.414					
1		4.826					
2		4.235				ND	
2		4.487					
2		5.023					
2		5.706					
2		5.920					



Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014015.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## 3 PCB-1242

1	3.566					ND	
1	3.915						
1	4.416						
1	5.088						
1	5.715						
2	4.489					ND	
2	5.025						
2	5.708						
2	6.719						
2	7.997						

## 4 PCB-1016

1	3.567					ND	
1	3.917						
1	4.418						
1	4.572						
1	5.089						
2	5.025					ND	
2	5.707						
2	5.921						
2	6.093						
2	7.510						

## 6 PCB-1248

1	4.796					ND	
1	5.087						
1	5.675						
1	6.015						
1	6.660						
2	6.241					ND	
2	6.719						
2	7.419						
2	7.515						
2	7.999						

## 7 PCB-1254

1	5.621					ND	
1	6.004						
1	6.658						
1	7.144						
1	8.057						
2	7.506					ND	
2	7.891						
2	8.820						
2	9.232						
2	10.157						

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014015.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## 8 PCB-1260

1	8.069					ND	
1	8.773						
1	9.332						
1	9.810						
1	10.786						
2	9.547					ND	
2	10.158						
2	10.768						
2	11.142						
2	11.675						

## 9 PCB-1262

1	8.284					ND	
1	8.753						
1	9.311						
1	9.860						
1	10.775						
2	10.298					ND	
2	10.767						
2	11.139						
2	11.665						
2	12.461						

## 10 PCB-1268

1	9.864					ND	
1	10.237						
1	10.778						
1	11.197						
2	11.662					ND	
2	12.083						
2	12.463						
2	12.896						

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.476	11.476	0.000	14920416H	0.0200	0.0170	
2	13.231	13.230	0.001	16055551H	0.0200	0.0194	

RPD = 13.22

## QC Flag Legend

## Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014015.D

Injection Date: 30-Oct-2014 11:11:09

Instrument ID: CHGC16

Lims ID: MB 180-122691/1-C

Client ID:

Operator ID: 402331

ALS Bottle#: 15

Worklist Smp#: 15

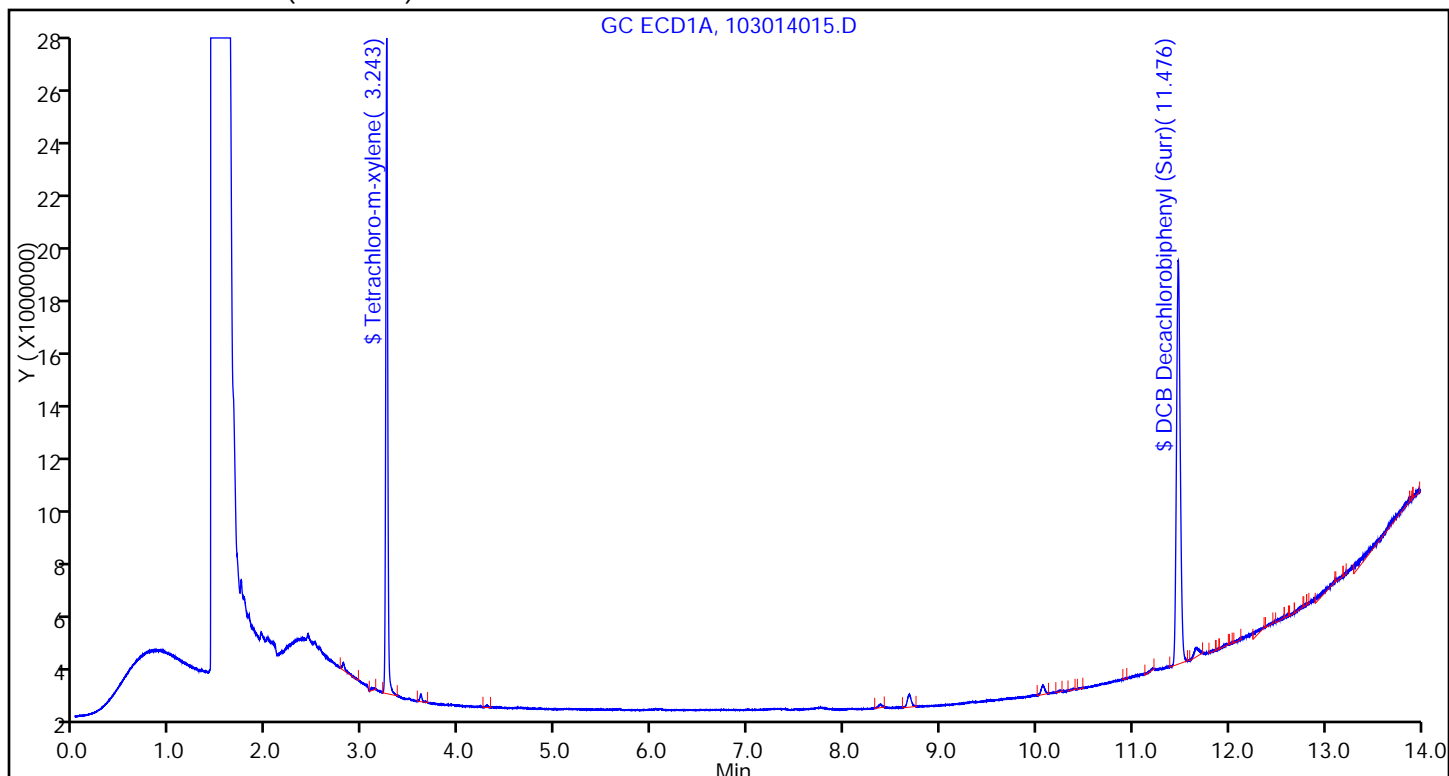
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

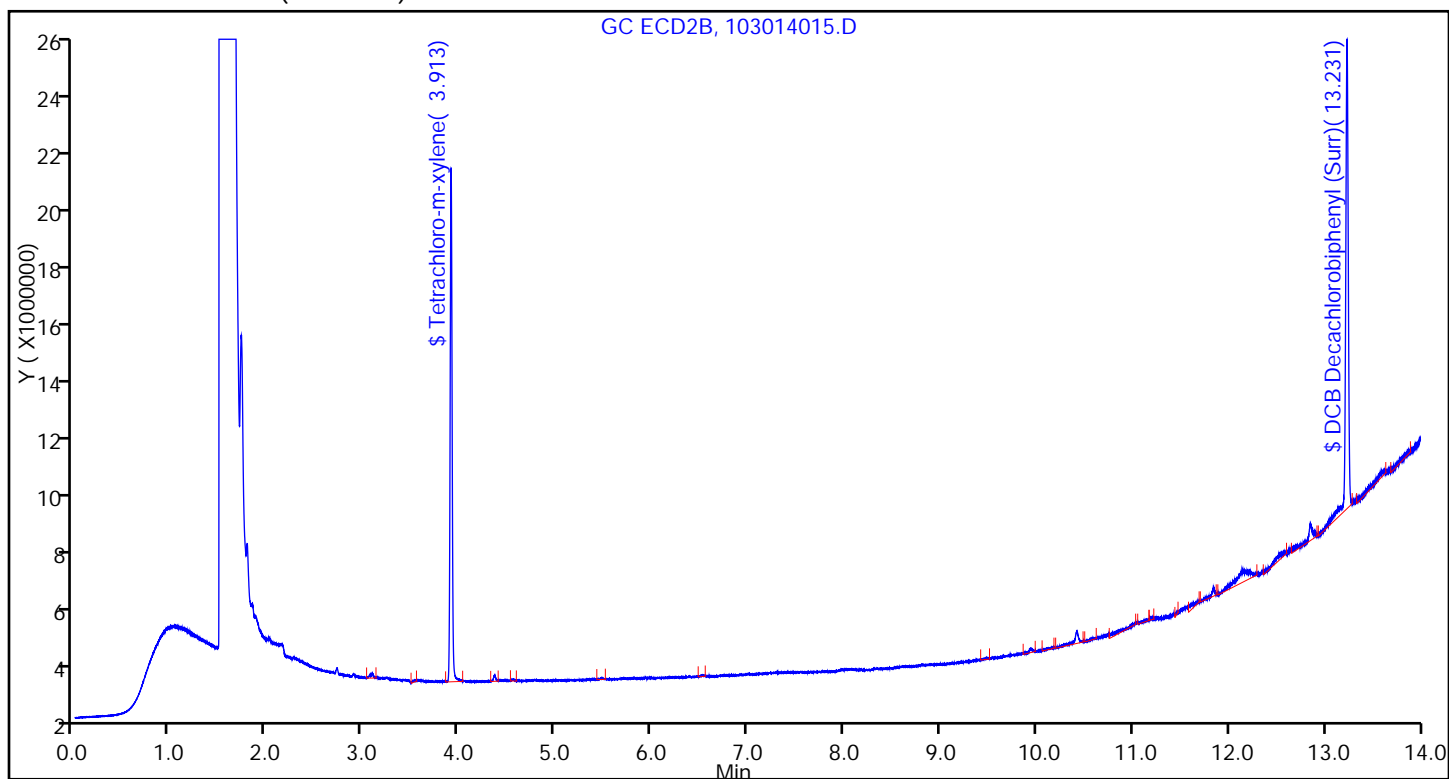
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-122691/2-C  
Matrix: Sediment Lab File ID: 103014031.D  
Analysis Method: 8082A Date Collected: \_\_\_\_\_  
Extraction Method: 3541 Date Extracted: 10/25/2014 03:15  
Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 16:19  
Con. Extract Vol.: 1.0(mL) Dilution Factor: 1  
Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)  
% Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	25.8		0.42	0.062
11096-82-5	PCB-1260	29.8		0.42	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	96		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	70		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014031.D  
 Lims ID: LCS 180-122691/2-C  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 30-Oct-2014 16:19:36 ALS Bottle#: 31 Worklist Smp#: 31  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0004088-031  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj Date: 31-Oct-2014 05:51:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 1 Tetrachloro-m-xylene

1	3.250	3.244	0.006	19677953H	0.0200	0.0139
2	3.918	3.913	0.005	14473791H	0.0200	0.0140

RPD = 0.82

4 PCB-1016

1	3.573	3.567	0.006	16087306H	1.00	0.6966
1	3.924	3.917	0.007	25622129H	1.00	0.7130
1	4.426	4.418	0.008	45397552H	1.00	0.8035
1	4.583	4.572	0.011	22828292H	1.00	0.7673
1	5.102	5.089	0.013	19090893H	1.00	0.8015

Average of Peak Amounts = 0.7564

2	5.030	5.025	0.005	15376729H	1.00	0.7263
2	5.715	5.707	0.008	28960784H	1.00	0.8337
2	5.928	5.921	0.007	15578501H	1.00	0.7676
2	6.102	6.093	0.009	11122296H	1.00	0.7749
2	7.518	7.510	0.008	9951805H	1.00	0.7684

Average of Peak Amounts = 0.7742

RPD = 2.33

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014031.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 8 PCB-1260

1	8.773	8.069	0.704	0H	1.00	0	
1	9.332	8.773	0.559	0H	1.00	0	
1	9.390	9.332	0.058	32761460H	1.00	0.3733	
1	0.000	9.810	-9.810	0H	1.00	0	
1	0.000	10.786	-10.786	0H	1.00	0	
Average of Peak Amounts =						0.3733	
2	9.556	9.547	0.009	39021150H	1.00	0.8588	a
2	10.167	10.158	0.009	31759050H	1.00	0.8623	a
2	10.776	10.768	0.008	32090835H	1.00	0.8792	a
2	11.151	11.142	0.009	84210166H	1.00	0.9162	
2	11.682	11.675	0.007	40750605H	1.00	0.9526	a
Average of Peak Amounts =						0.8938	
						RPD = 82.16	

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.540	11.476	0.064	6177992H	0.0200	0.007054	
2	13.239	13.230	0.009	15900958H	0.0200	0.0193	
						RPD = 92.78	

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014031.D

Injection Date: 30-Oct-2014 16:19:36

Instrument ID: CHGC16

Lims ID: LCS 180-122691/2-C

Client ID:

Operator ID: 402331

ALS Bottle#: 31

Worklist Smp#: 31

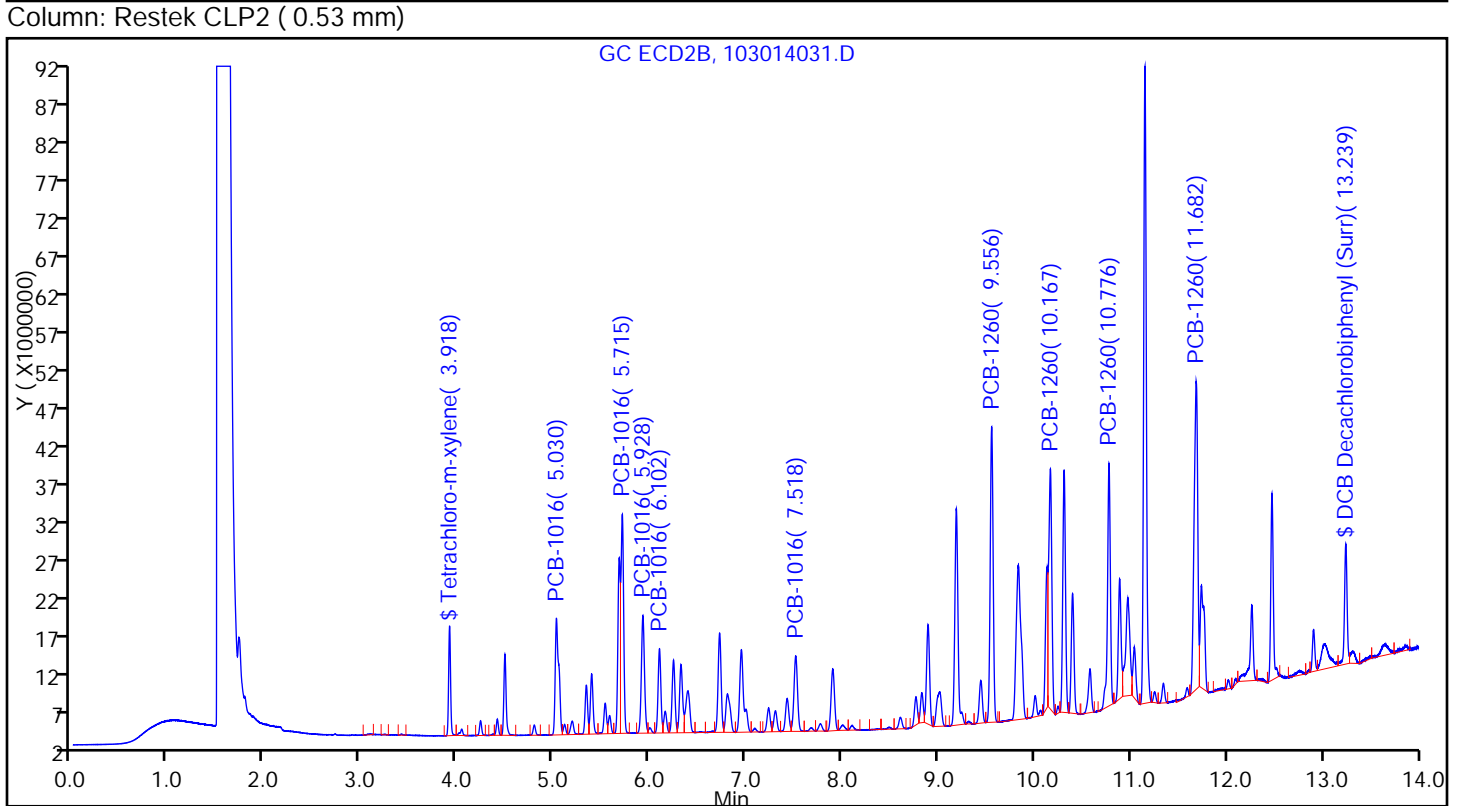
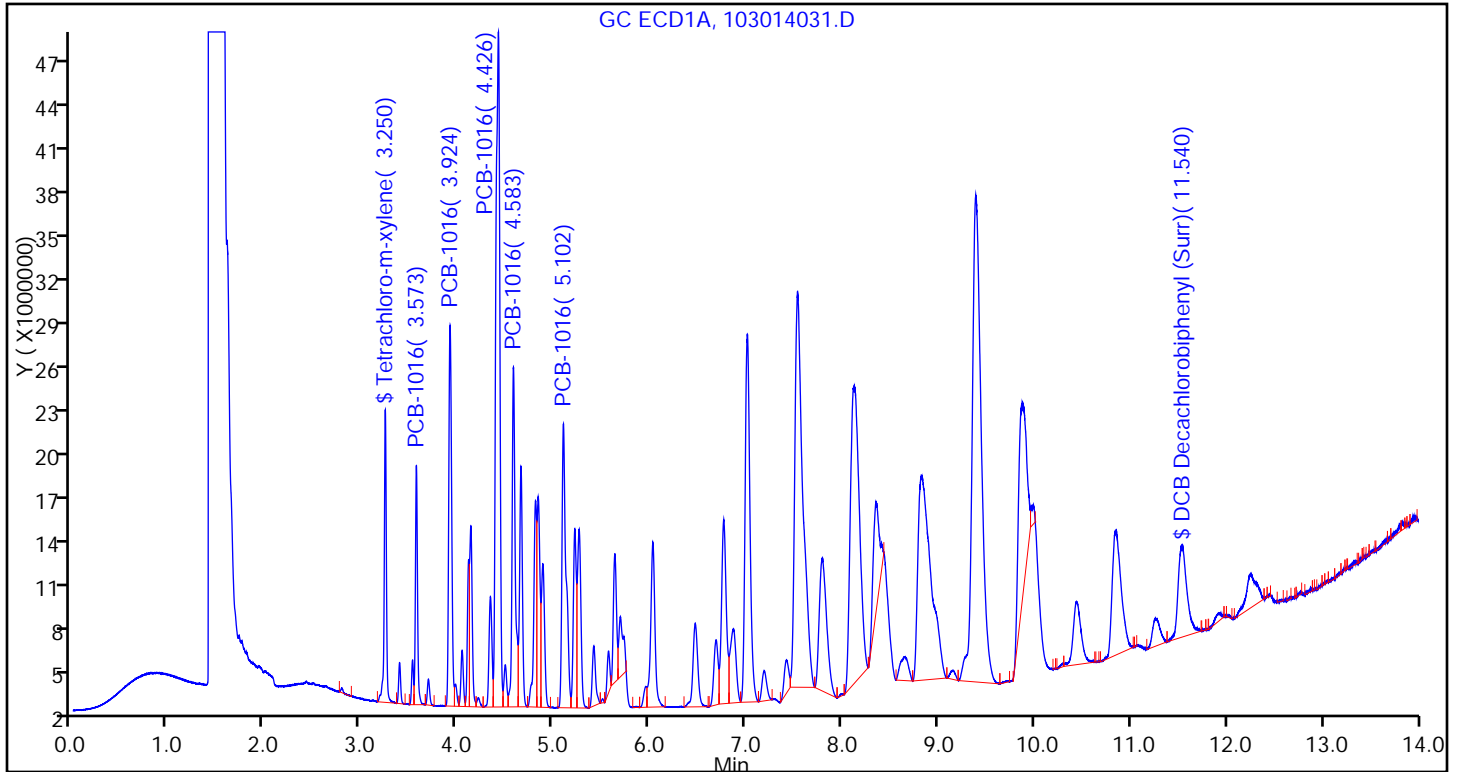
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Report Date: 31-Oct-2014 06:23:33

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014031.D

Injection Date: 30-Oct-2014 16:19:36

Instrument ID: CHGC16

Lims ID: LCS 180-122691/2-C

Client ID:

Operator ID: 402331

ALS Bottle#: 31

Worklist Smp#: 31

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

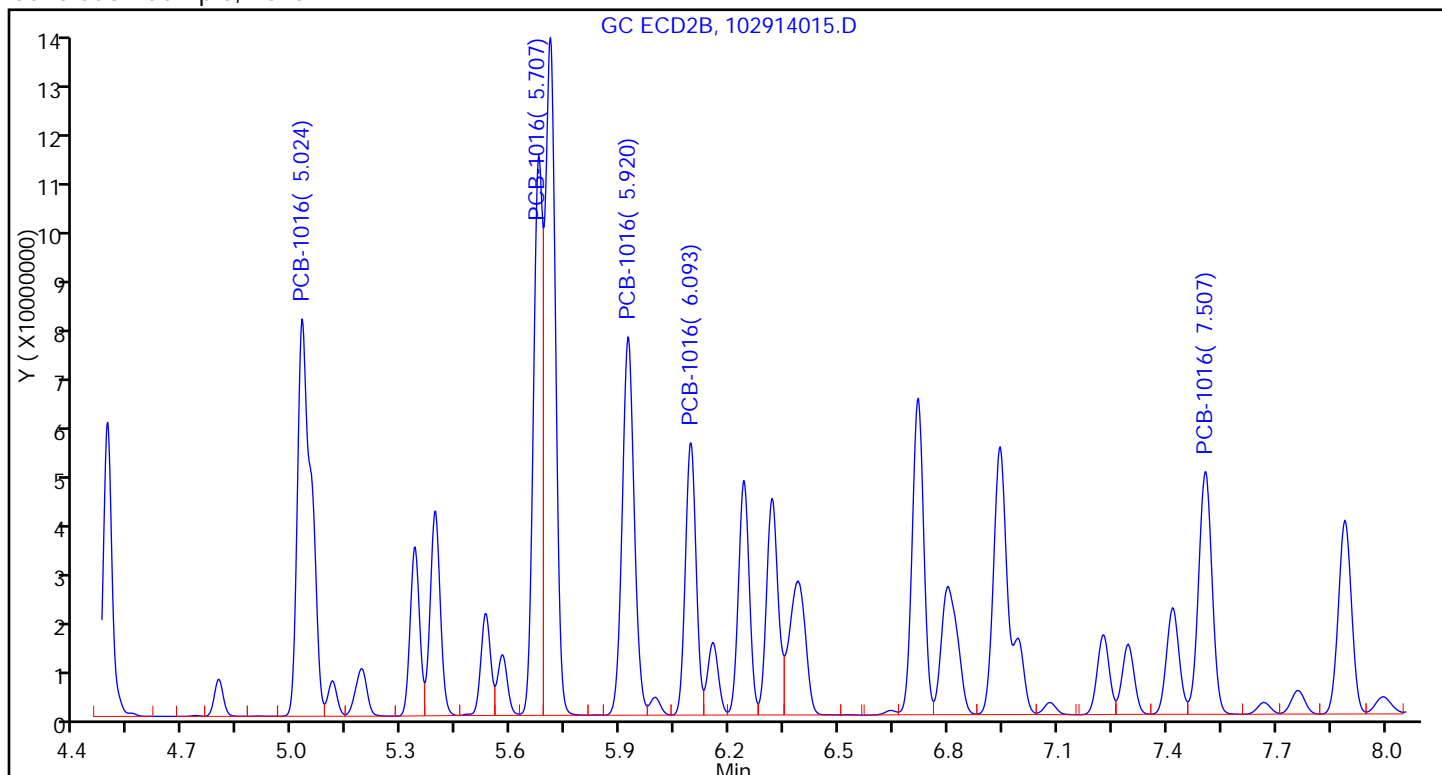
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

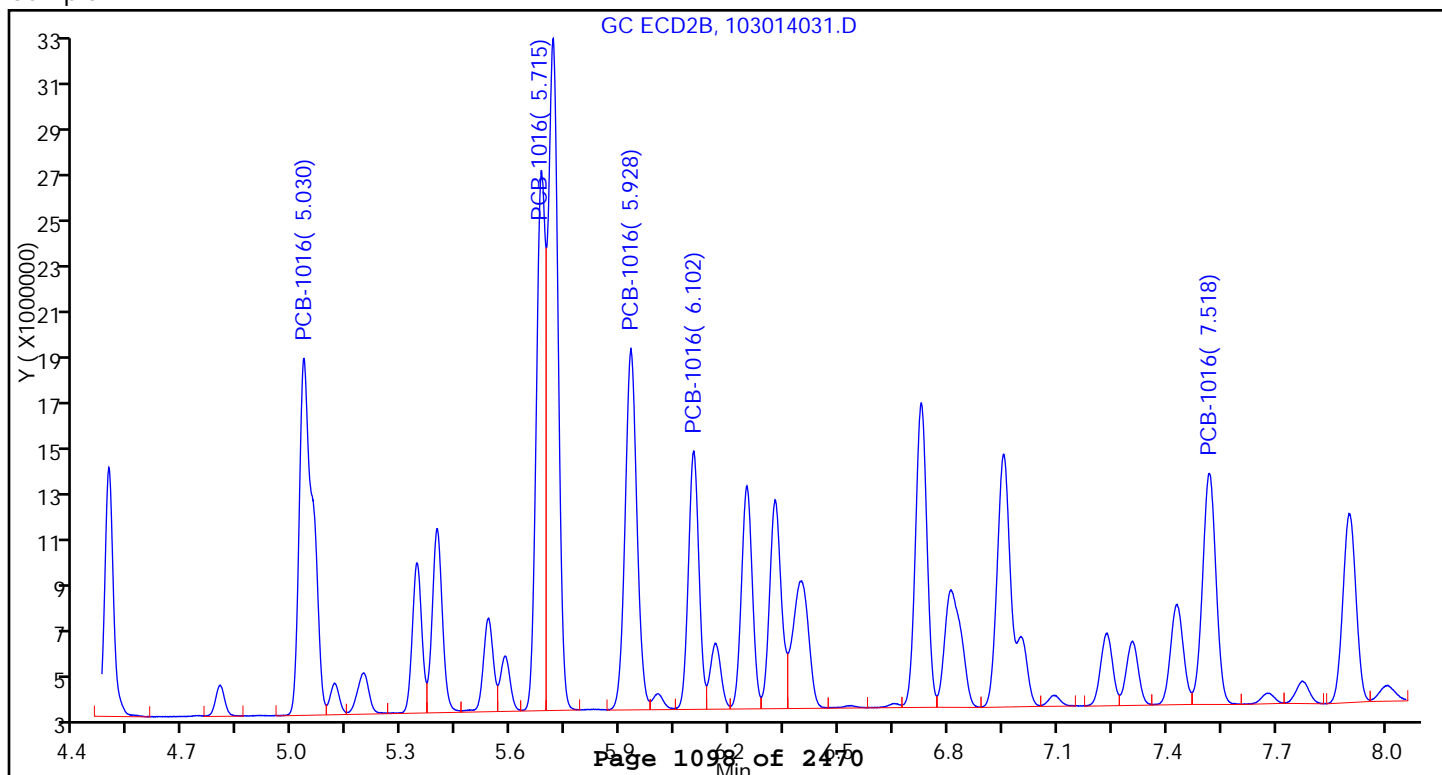
Detector GC ECD2B

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample





Report Date: 31-Oct-2014 06:23:33

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014031.D

Injection Date: 30-Oct-2014 16:19:36

Instrument ID: CHGC16

Lims ID: LCS 180-122691/2-C

Client ID:

Operator ID: 402331

ALS Bottle#: 31

Worklist Smp#: 31

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCB\_CHGC16

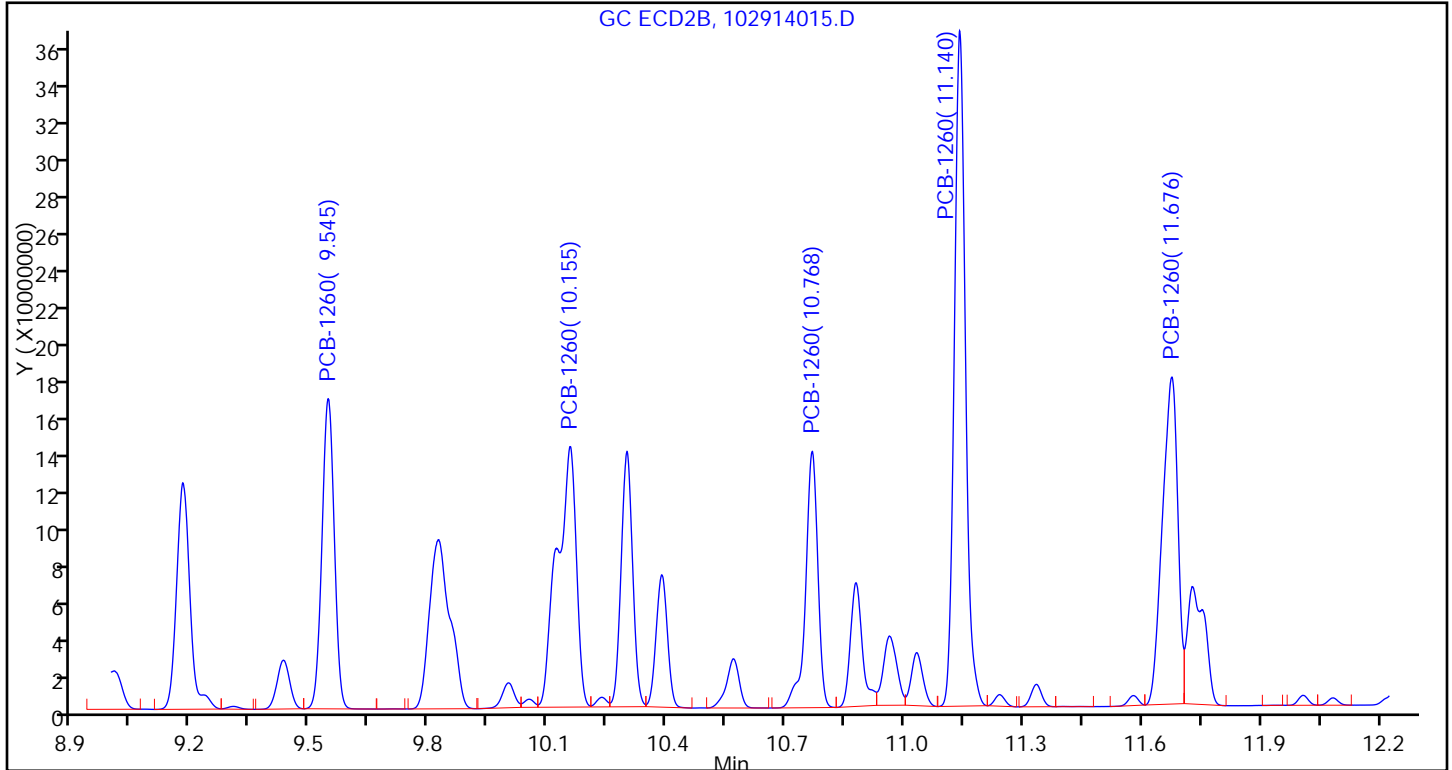
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

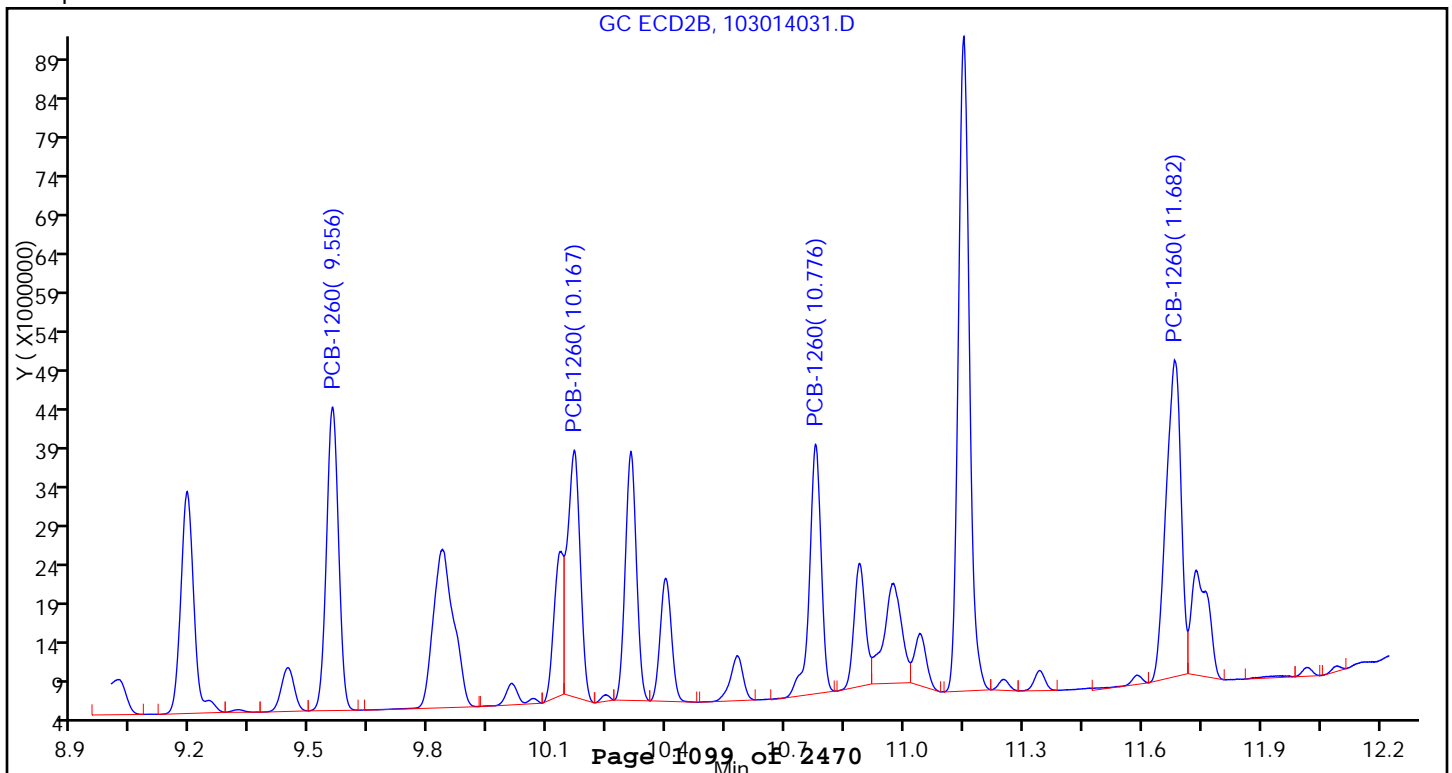
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MS Lab Sample ID: 180-37750-4 MS

Matrix: Sediment Lab File ID: 103014017.D

Analysis Method: 8082A Date Collected: 10/13/2014 12:50

Extraction Method: 3541 Date Extracted: 10/25/2014 03:15

Sample wt/vol: 30.0(g) Date Analyzed: 10/30/2014 11:49

Con. Extract Vol.: 1.0(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: 29.3 GPC Cleanup: (Y/N) N

Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	35.4		5.9	0.88
11104-28-2	PCB-1221	ND		5.9	1.1
11141-16-5	PCB-1232	ND		5.9	1.0
53469-21-9	PCB-1242	ND		5.9	0.96
12672-29-6	PCB-1248	ND		5.9	0.56
11097-69-1	PCB-1254	ND		5.9	0.84
11096-82-5	PCB-1260	35.6		5.9	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	92		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	76		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D  
 Lims ID: 180-37750-A-4-I MS  
 Client ID: SD-B01  
 Sample Type: MS  
 Inject. Date: 30-Oct-2014 11:49:39 ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-017  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

First Level Reviewer: oravecj

Date: 30-Oct-2014 12:21:54

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 2 PCB-1221

1		2.799					ND
1		3.566					
1		3.391					
2		3.414					ND
2		4.236					
2		4.487					

## \$ 1 Tetrachloro-m-xylene

1	3.243	3.244	-0.001	2054340H	0.002000	0.001451	
2	3.914	3.913	0.001	1578678H	0.002000	0.001528	
							RPD = 5.20

## 5 PCB-1232

1		3.391					ND
1		3.566					
1		3.916					
1		4.414					
1		4.826					
2		4.235					ND
2		4.487					
2		5.023					
2		5.706					
2		5.920					

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## 3 PCB-1242

1		3.566				ND	
1		3.915					
1		4.416					
1		5.088					
1		5.715					
2		4.489				ND	
2		5.025					
2		5.708					
2		6.719					
2		7.997					

## 4 PCB-1016

1	3.566	3.567	-0.001	1807731H	0.1000	0.0783	
1	3.915	3.917	-0.002	2669067H	0.1000	0.0743	
1	4.415	4.418	-0.003	4288512H	0.1000	0.0759	
1	4.571	4.572	-0.001	2226111H	0.1000	0.0748	
1	5.088	5.089	-0.001	1851032H	0.1000	0.0777	
Average of Peak Amounts =						0.0762	
2	5.022	5.025	-0.003	1568557H	0.1000	0.0741	
2	5.707	5.707	0.000	2662671H	0.1000	0.0766	
2	5.919	5.921	-0.002	1422609H	0.1000	0.0701	
2	6.091	6.093	-0.002	1011095H	0.1000	0.0704	
2	7.508	7.510	-0.002	1092205H	0.1000	0.0843	

Average of Peak Amounts = 0.0751

RPD = 1.42

## 6 PCB-1248

1		4.796				ND	
1		5.087					
1		5.675					
1		6.015					
1		6.660					
2		6.241				ND	
2		6.719					
2		7.419					
2		7.515					
2		7.999					

## 7 PCB-1254

1		5.621				ND	
1		6.004					
1		6.658					
1		7.144					
1		8.057					
2		7.506				ND	
2		7.891					
2		8.820					
2		9.232					
2		10.157					

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
-----	--------------	------------------	------------------	----------	---------------	-----------------	-------

## 8 PCB-1260

1	8.065	8.069	-0.004	3508974H	0.1000	0.0762	
1	8.767	8.773	-0.006	2571638H	0.1000	0.0698	
1	9.328	9.332	-0.004	6105715H	0.1000	0.0696	
1	9.805	9.810	-0.005	3381689H	0.1000	0.0701	
1	10.786	10.786	0.000	1908227H	0.1000	0.0683	

Average of Peak Amounts = 0.0708

2	9.545	9.547	-0.002	3497237H	0.1000	0.0770	
2	10.158	10.158	0.000	2876905H	0.1000	0.0781	
2	10.768	10.768	0.000	2698631H	0.1000	0.0739	
2	11.139	11.142	-0.003	6967531H	0.1000	0.0758	
2	11.675	11.675	0.000	3106710H	0.1000	0.0726	

Average of Peak Amounts = 0.0755

RPD = 6.40

## 9 PCB-1262

1	8.284					ND	
1	8.753						
1	9.311						
1	9.860						
1	10.775						
2	10.298					ND	
2	10.767						
2	11.139						
2	11.665						
2	12.461						

## 10 PCB-1268

1	9.864					ND	
1	10.237						
1	10.778						
1	11.197						
2	11.662					ND	
2	12.083						
2	12.463						
2	12.896						

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.473	11.476	-0.003	1522341H	0.002000	0.001738	
2	13.230	13.230	0.000	1523565H	0.002000	0.001846	

RPD = 5.99

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

H - Response Measured by Height

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D

Injection Date: 30-Oct-2014 11:49:39

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-I MS

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 17

Worklist Smp#: 17

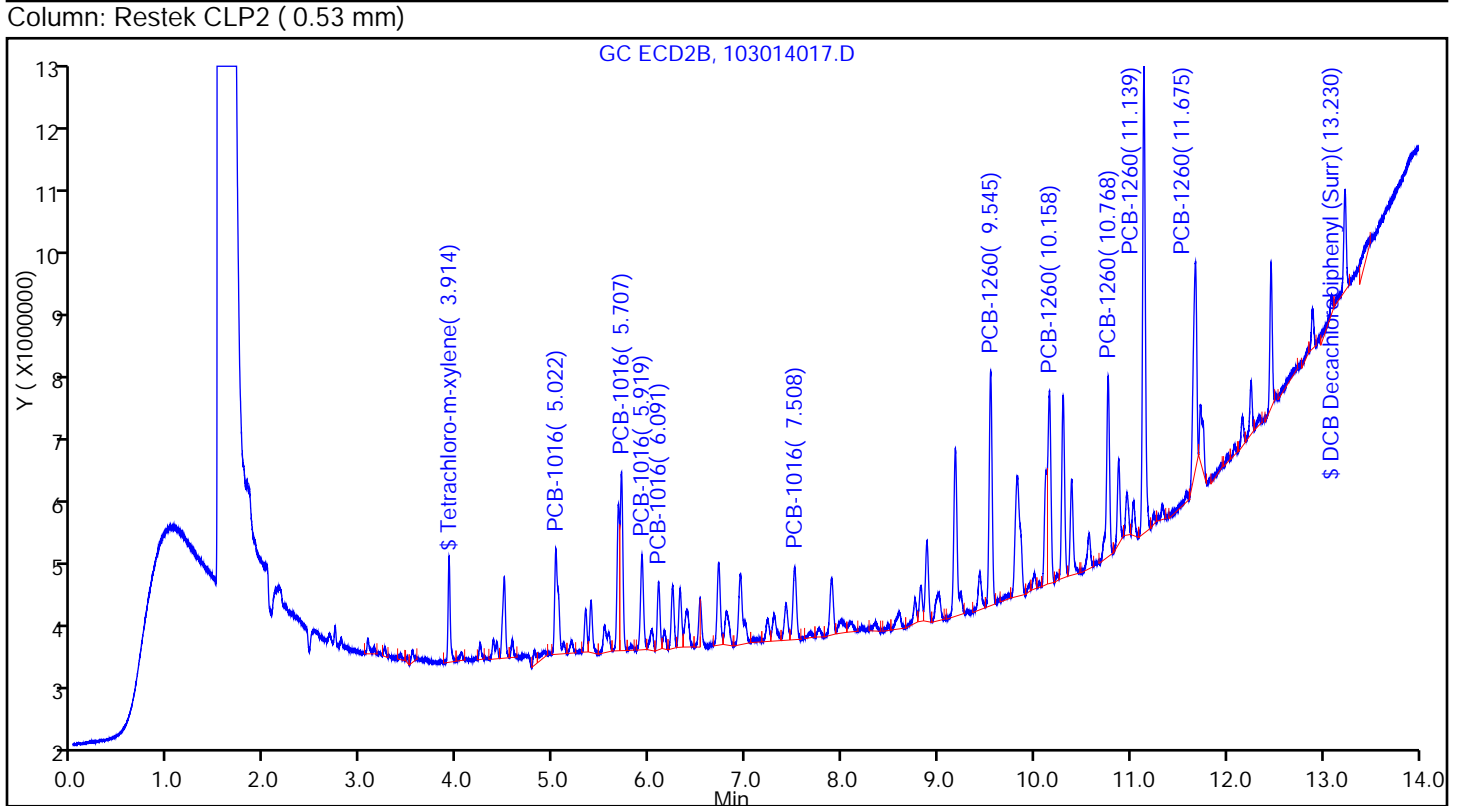
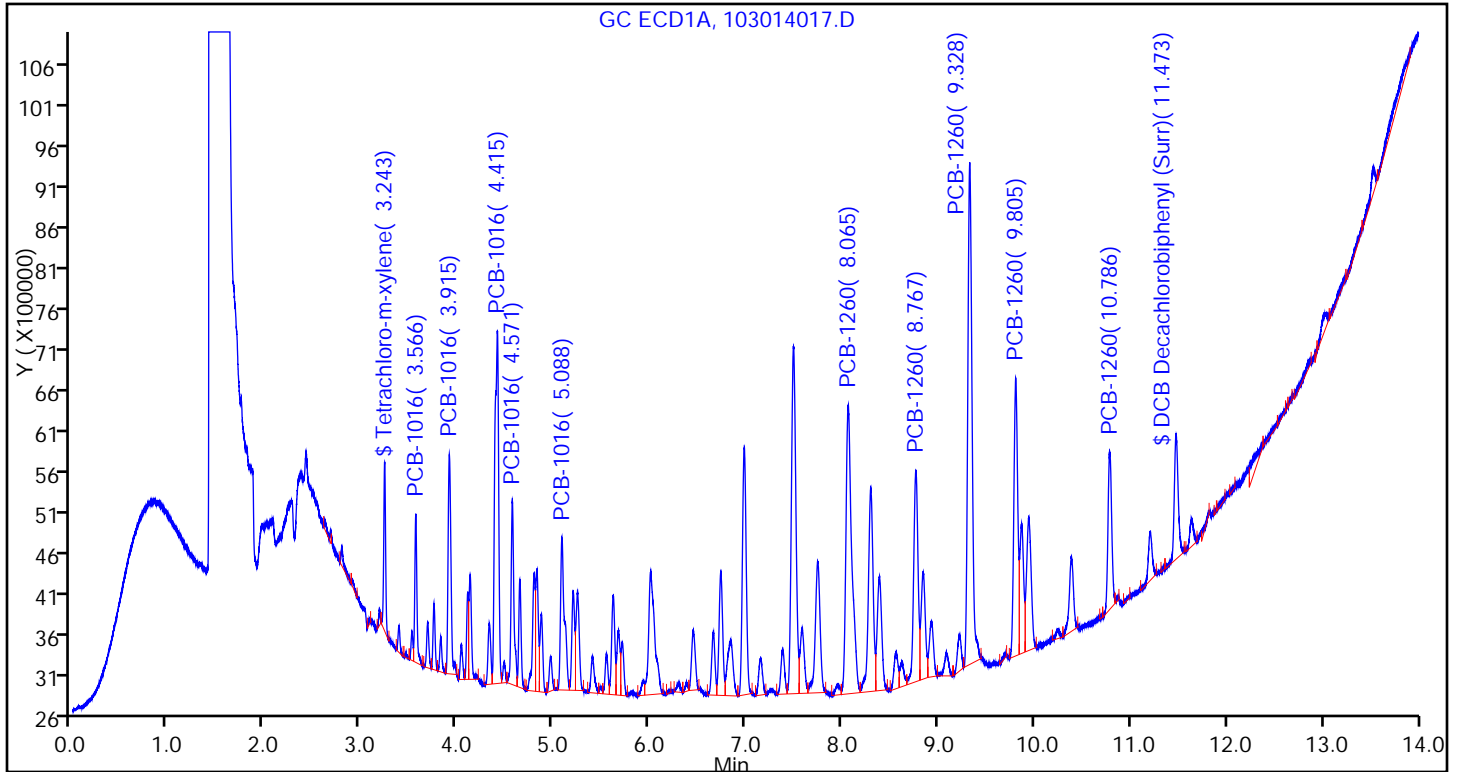
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Report Date: 31-Oct-2014 06:24:17

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D

Injection Date: 30-Oct-2014 11:49:39

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-I MS

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 17

Worklist Smp#: 17

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

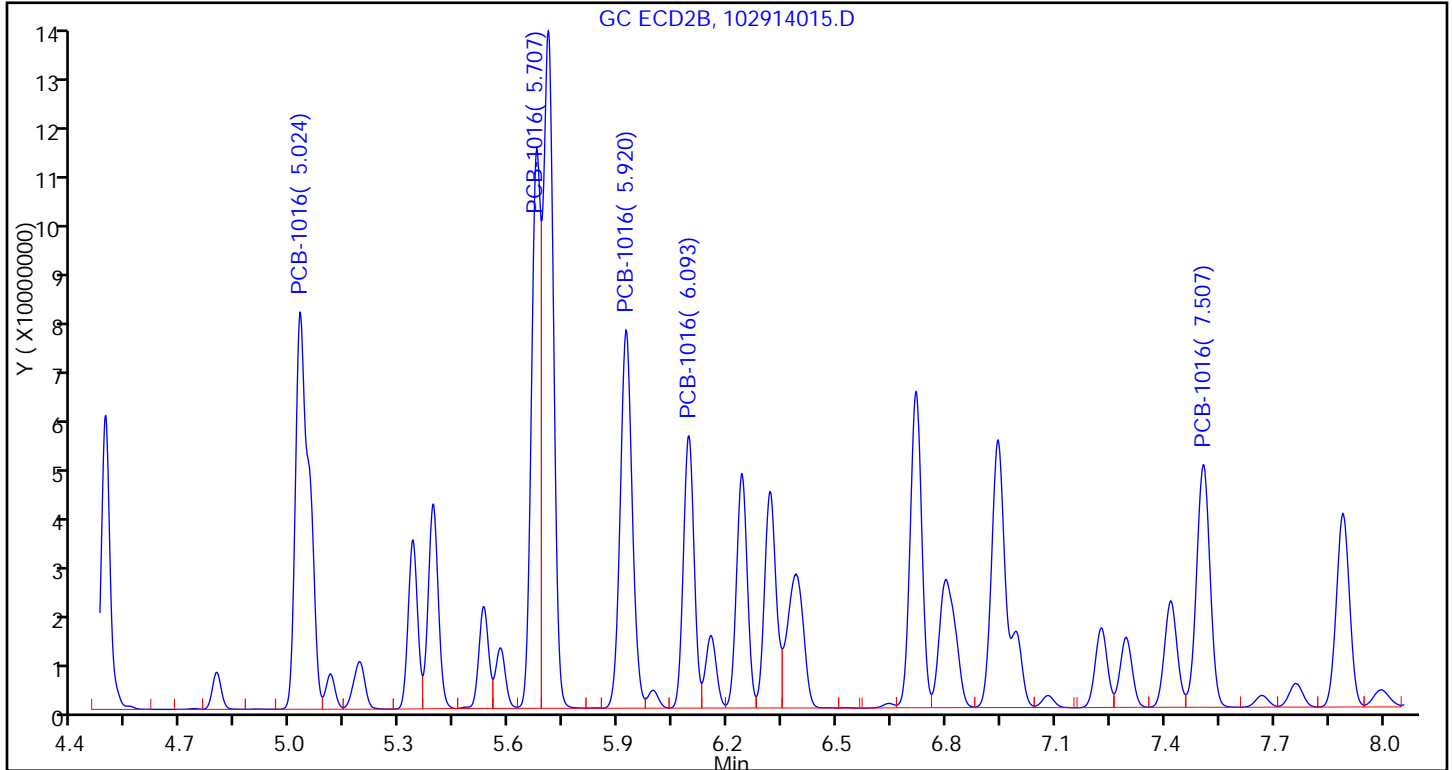
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

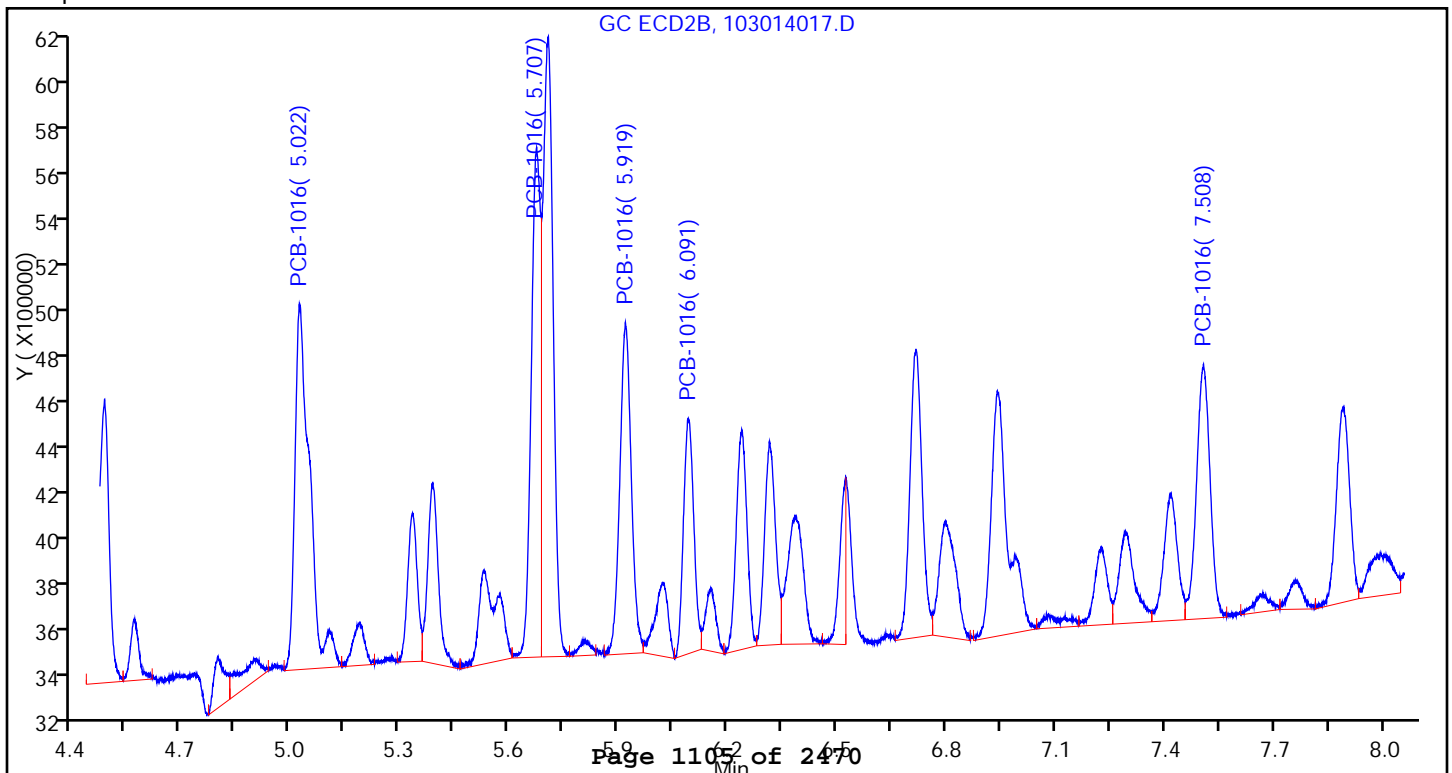
Detector: GC ECD2B

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 31-Oct-2014 06:24:17

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014017.D

Injection Date: 30-Oct-2014 11:49:39

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-I MS

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 17

Worklist Smp#: 17

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

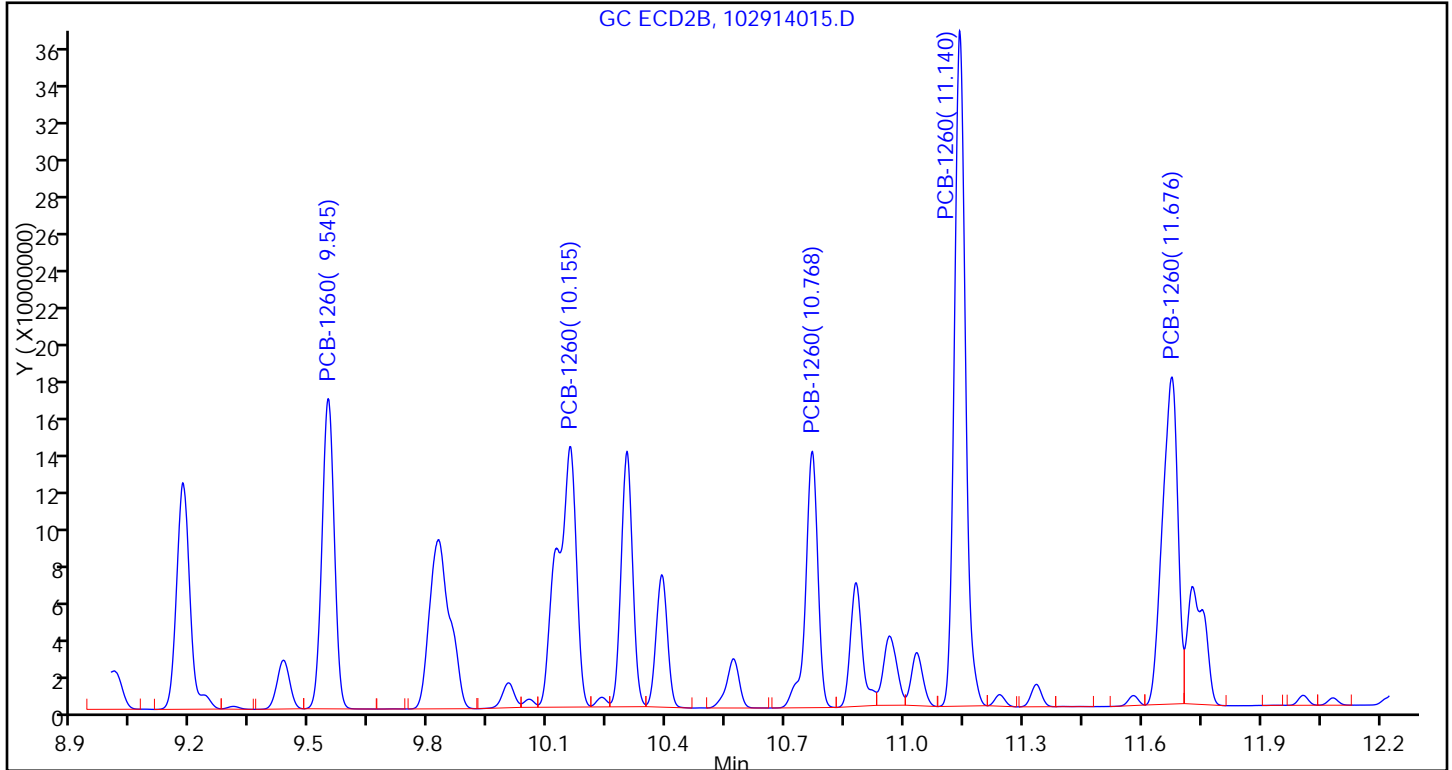
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

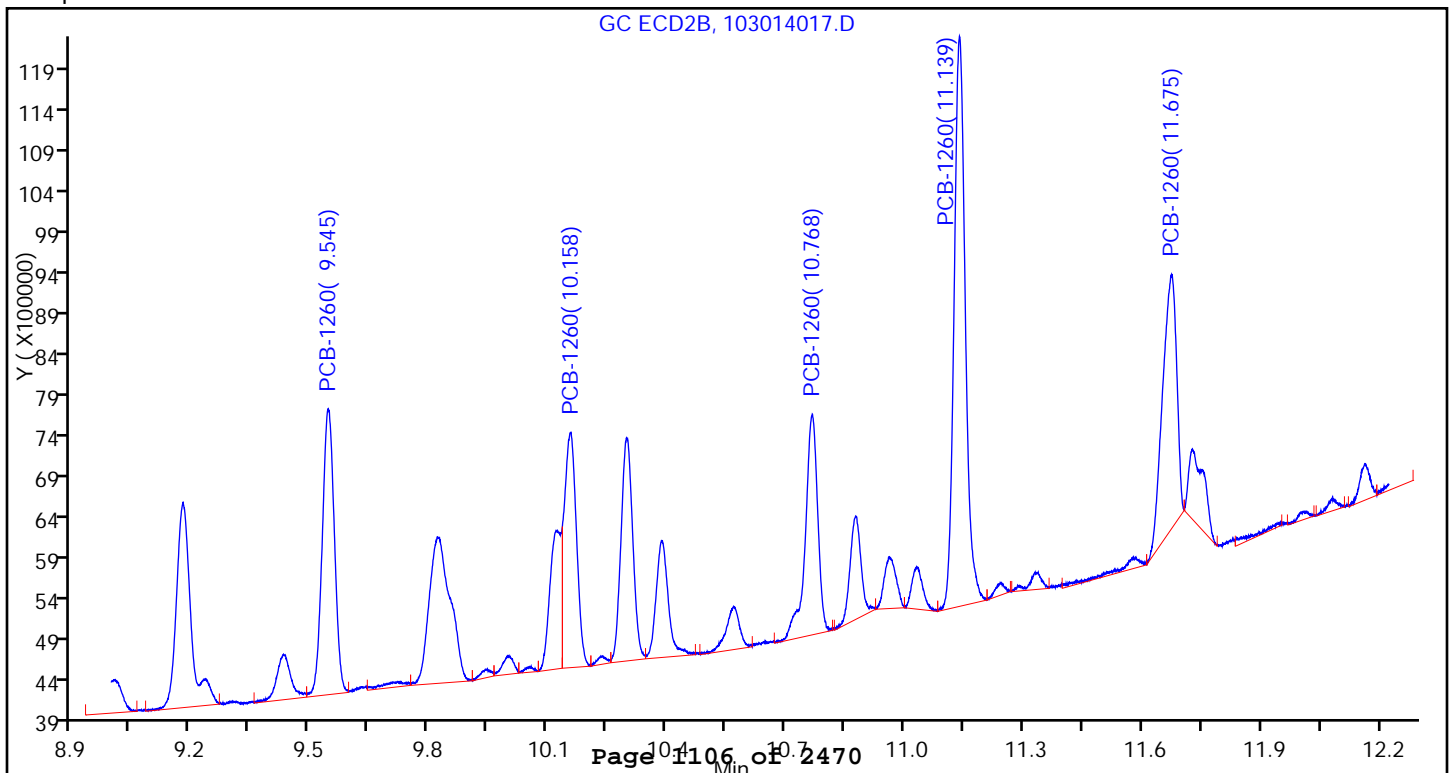
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample





FORM I  
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Client Sample ID: SD-B01 MSD Lab Sample ID: 180-37750-4 MSD

Matrix: Sediment Lab File ID: 103014018.D

Analysis Method: 8082A Date Collected: 10/13/2014 12:50

Extraction Method: 3541 Date Extracted: 10/25/2014 03:15

Sample wt/vol: 30.2(g) Date Analyzed: 10/30/2014 12:09

Con. Extract Vol.: 1.0(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: RTX-CLP2 ID: 0.53(mm)

% Moisture: 29.3 GPC Cleanup: (Y/N) N

Analysis Batch No.: 123252 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	35.7		5.9	0.87
11104-28-2	PCB-1221	14.0		5.9	1.1
11141-16-5	PCB-1232	54.9		5.9	1.0
53469-21-9	PCB-1242	36.8		5.9	0.95
12672-29-6	PCB-1248	14.6		5.9	0.55
11097-69-1	PCB-1254	23.8		5.9	0.83
11096-82-5	PCB-1260	36.9		5.9	0.83

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl (Surr)	95		20-150
877-09-8	Tetrachloro-m-xylene (Surr)	75		30-150

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D  
 Lims ID: 180-37750-A-4-J MSD  
 Client ID: SD-B01  
 Sample Type: MSD  
 Inject. Date: 30-Oct-2014 12:09:01 ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info: 180-0004088-018  
 Operator ID: 402331 Instrument ID: CHGC16  
 Method: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\PCB\_CHGC16.m  
 Limit Group: GCS 8082A ICAL  
 Last Update: 31-Oct-2014 06:23:29 Calib Date: 29-Oct-2014 12:22:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHGC16\20141029-4073.b\102914015.D  
 Column 1 : Restek CLP 1 ( 0.53 mm) Det: GC ECD1A  
 Column 2 : Restek CLP2 ( 0.53 mm) Det: GC ECD2B  
 Process Host: XAWRK013

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 2 PCB-1221

1	2.797	2.799	-0.002	204641H		0.0207	
1	3.567	3.566	0.001	1667091H		0.0510	
1	3.393	3.391	0.002	326108H		0.0228	
Average of Peak Amounts =						0.0315	
2	3.413	3.414	-0.001	97689H		0.0115	
2	4.235	4.236	-0.001	223671H		0.0219	
2	4.490	4.487	0.003	1189392H		0.0565	
Average of Peak Amounts =						0.0299	
RPD = 4.92							

## \$ 1 Tetrachloro-m-xylene

1	3.244	3.244	0.000	2018297H	0.002000	0.001425	
2	3.914	3.913	0.001	1541167H	0.002000	0.001492	
RPD = 4.57							

## 5 PCB-1232

1	3.393	3.391	0.002	326108H		0.0323	
1	3.567	3.566	0.001	1667091H		0.0601	
1	3.917	3.916	0.001	2678336H		0.1683	
1	4.416	4.414	0.002	4290011H		0.1695	
1	4.825	4.826	-0.001	1514011H		0.2026	
Average of Peak Amounts =						0.1266	
2	4.235	4.235	0.000	223671H		0.0315	
2	4.490	4.487	0.003	1189392H		0.0656	
2	5.025	5.023	0.002	1576911H		0.1603	
2	5.706	5.706	0.000	2717305H		0.1716	
2	5.919	5.920	-0.001	1403285H		0.1567	
Average of Peak Amounts =						0.1171	
RPD = 7.74							

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 3 PCB-1242

1	3.567	3.566	0.001	1667091H		0.0966	
1	3.917	3.915	0.002	2678336H		0.0952	
1	4.416	4.416	0.000	4290011H		0.0948	
1	5.087	5.088	-0.001	1943690H		0.0979	
1	5.678	5.715	-0.037	469986H		0.0231	

Average of Peak Amounts = 0.0815

2	4.490	4.489	0.001	1189392H		0.0938	
2	5.025	5.025	0.000	1576911H		0.0926	
2	5.706	5.708	-0.002	2717305H		0.0966	
2	6.720	6.719	0.001	1285581H		0.0951	
2	8.004	7.997	0.007	182931H		0.0149	

Average of Peak Amounts = 0.0786

RPD = 3.65

## 4 PCB-1016

1	3.567	3.567	0.000	1667091H	0.1000	0.0722	
1	3.917	3.917	0.000	2678336H	0.1000	0.0745	
1	4.416	4.418	-0.002	4290011H	0.1000	0.0759	
1	4.573	4.572	0.001	2273952H	0.1000	0.0764	
1	5.087	5.089	-0.002	1943690H	0.1000	0.0816	

Average of Peak Amounts = 0.0761

2	5.025	5.025	0.000	1576911H	0.1000	0.0745	
2	5.706	5.707	-0.001	2717305H	0.1000	0.0782	
2	5.919	5.921	-0.002	1403285H	0.1000	0.0691	
2	6.092	6.093	-0.001	1038117H	0.1000	0.0723	
2	7.509	7.510	-0.001	1122375H	0.1000	0.0867	

Average of Peak Amounts = 0.0762

RPD = 0.04

## 6 PCB-1248

1	4.797	4.796	0.001	1477630H		0.0452	
1	5.087	5.087	0.000	1943690H		0.0498	
1	5.678	5.675	0.003	469986H		0.0109	
1	6.010	6.015	-0.005	1568643H		0.0499	
1	6.662	6.660	0.002	792733H		0.0385	

Average of Peak Amounts = 0.0389

2	6.240	6.241	-0.001	959659H		0.0443	
2	6.720	6.719	0.001	1285581H		0.0486	
2	7.419	7.419	0.000	513935H		0.0181	
2	7.509	7.515	-0.006	1122375H		0.0371	
2	8.004	7.999	0.005	182931H		0.007996	

Average of Peak Amounts = 0.0312

RPD = 21.81

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 7 PCB-1254

1	5.622	5.621	0.001	1027750H		0.0333	
1	6.010	6.004	0.006	1568643H		0.0350	
1	6.662	6.658	0.004	792733H		0.0137	
1	7.158	7.144	0.014	445217H		0.0105	
1	8.068	8.057	0.011	3617475H		0.0858	

Average of Peak Amounts = 0.0357

2	7.509	7.506	0.003	1122375H		0.0460	
2	7.894	7.891	0.003	878742H		0.0319	
2	8.821	8.820	0.001	593934H		0.0143	
2	9.180	9.232	-0.052	2626057H		0.0805	
2	10.156	10.157	-0.001	3018513H		0.0812	

Average of Peak Amounts = 0.0508

RPD = 34.98

## 8 PCB-1260

1	8.068	8.069	-0.001	3617475H	0.1000	0.0786	
1	8.769	8.773	-0.004	2673729H	0.1000	0.0726	
1	9.328	9.332	-0.004	6320939H	0.1000	0.0720	
1	9.805	9.810	-0.005	3370962H	0.1000	0.0698	
1	10.787	10.786	0.001	2047887H	0.1000	0.0734	

Average of Peak Amounts = 0.0733

2	9.547	9.547	0.000	3637347H	0.1000	0.0801	
2	10.156	10.158	-0.002	3018513H	0.1000	0.0820	
2	10.766	10.768	-0.002	2836657H	0.1000	0.0777	
2	11.140	11.142	-0.002	7355816H	0.1000	0.0800	
2	11.673	11.675	-0.002	3171886H	0.1000	0.0741	

Average of Peak Amounts = 0.0788

RPD = 7.23

## 9 PCB-1262

1	8.301	8.284	0.017	2541995H		0.0491	
1	8.769	8.753	0.016	2673729H		0.0529	
1	9.328	9.311	0.017	6320939H		0.0588	
1	9.869	9.860	0.009	1610652H		0.0365	
1	10.787	10.775	0.012	2047887H		0.0476	

Average of Peak Amounts = 0.0490

2	10.300	10.298	0.002	2871535H		0.0519	
2	10.766	10.767	-0.001	2836657H		0.0587	
2	11.140	11.139	0.001	7355816H		0.0671	
2	11.673	11.665	0.008	3171886H		0.0550	
2	12.462	12.461	0.001	2218219H		0.0519	

Average of Peak Amounts = 0.0569

RPD = 14.97

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng	OnCol Amt ng	Flags
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## 10 PCB-1268

1	9.869	9.864	0.005	1610652H		0.0126	
1	10.247	10.237	0.010	121362H		0.001181	
1	10.787	10.778	0.009	2047887H		0.0441	
1	11.203	11.197	0.006	611928H		0.001716	

Average of Peak Amounts =

0.0149

2	11.673	11.662	0.011	3171886H		0.0235	
2	12.084	12.083	0.001	140217H		0.001279	
2	12.462	12.463	-0.001	2218219H		0.0468	
2	12.893	12.896	-0.003	656983H		0.001814	

Average of Peak Amounts =

0.0184

RPD = 20.94

## \$ 11 DCB Decachlorobiphenyl (Surr)

1	11.474	11.476	-0.002	1512112H	0.002000	0.001727	
2	13.230	13.230	0.000	1564299H	0.002000	0.001895	

RPD = 9.30

## TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

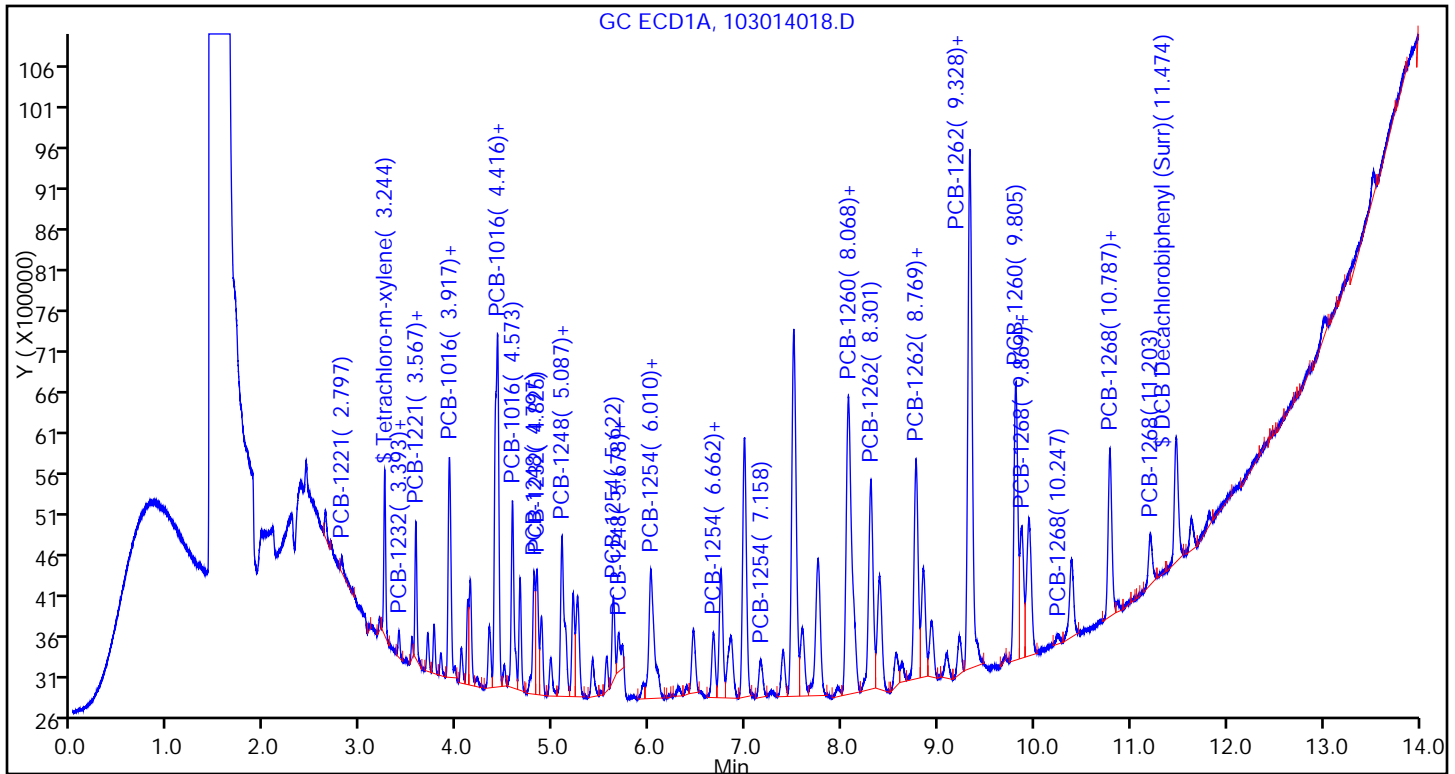
Injection Vol: 1.0 ul

Dil. Factor: 10.0000

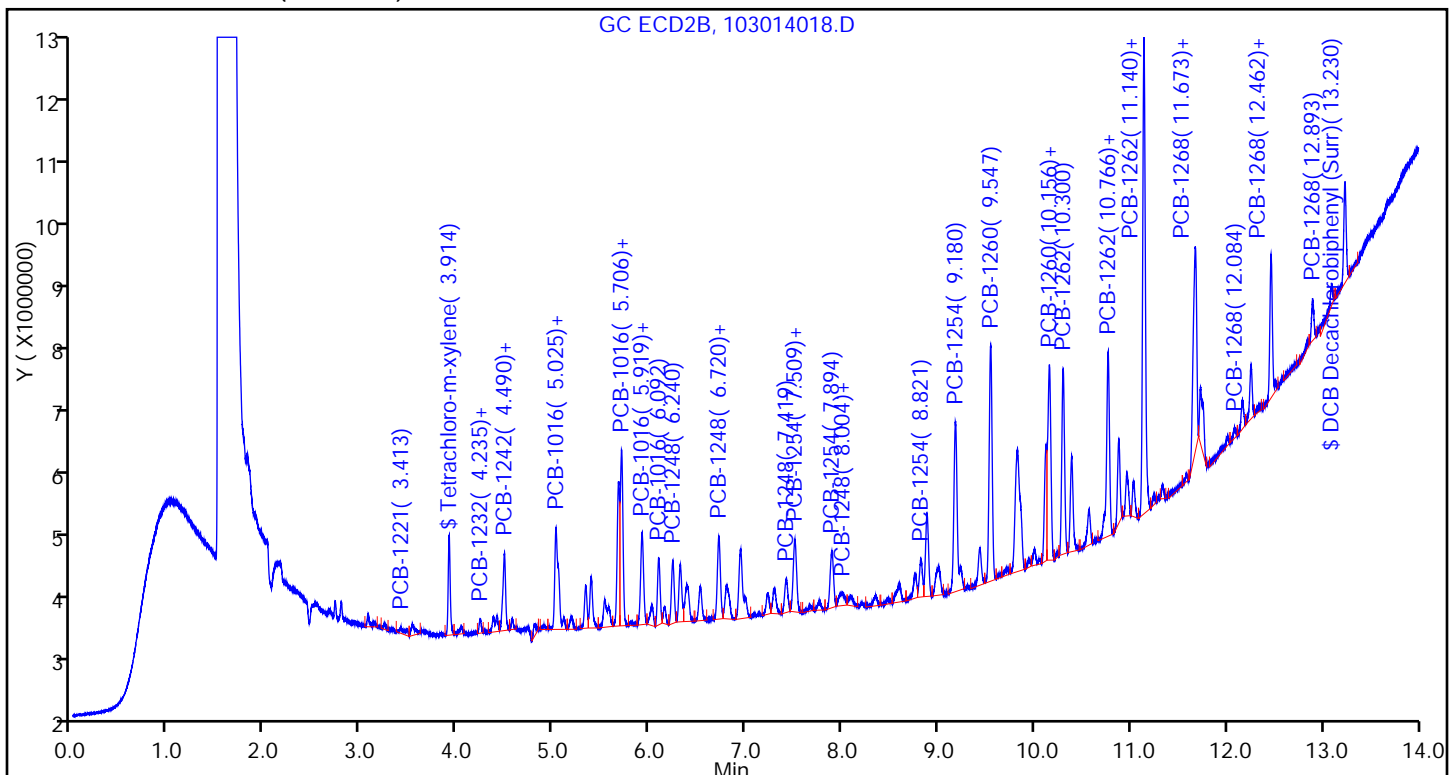
Method: PCB\_CHGC16

Limit Group: GCS 8082A ICAL

Column: Restek CLP 1 (0.53 mm)



Column: Restek CLP2 (0.53 mm)



Report Date: 31-Oct-2014 06:24:13

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

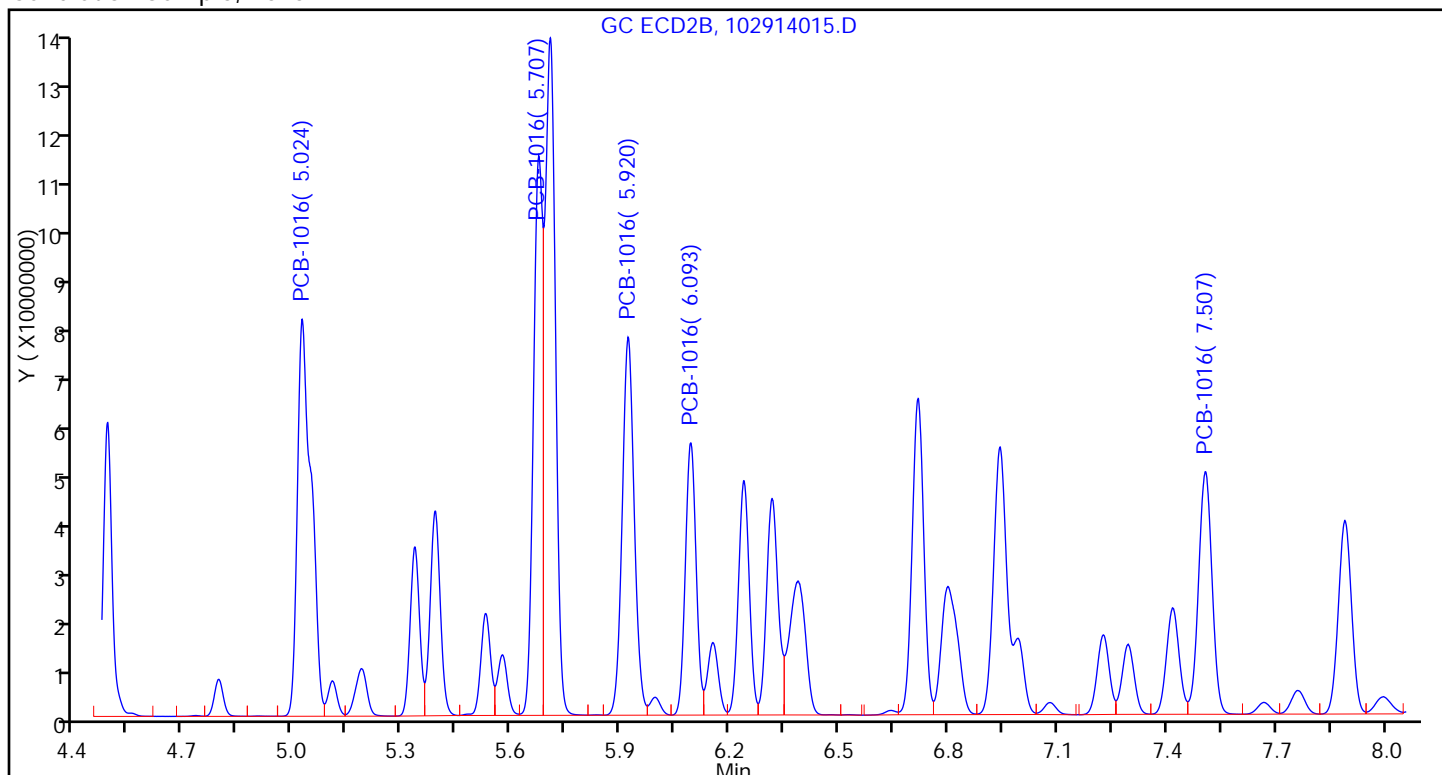
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

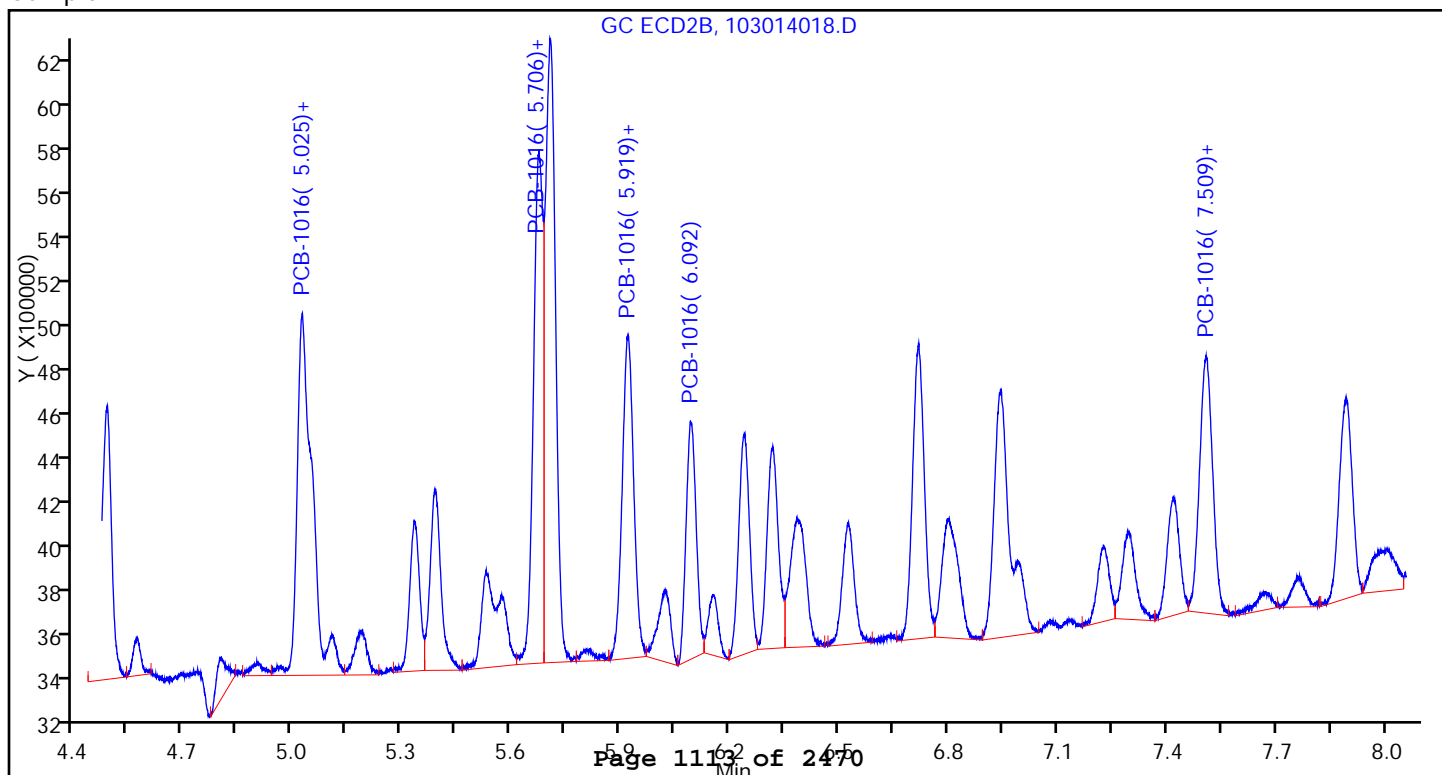
Detector: GC ECD2B

4 PCB-1016, CAS: 12674-11-2

Calibration Sample, Level: 7



Sample



Report Date: 31-Oct-2014 06:24:12

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

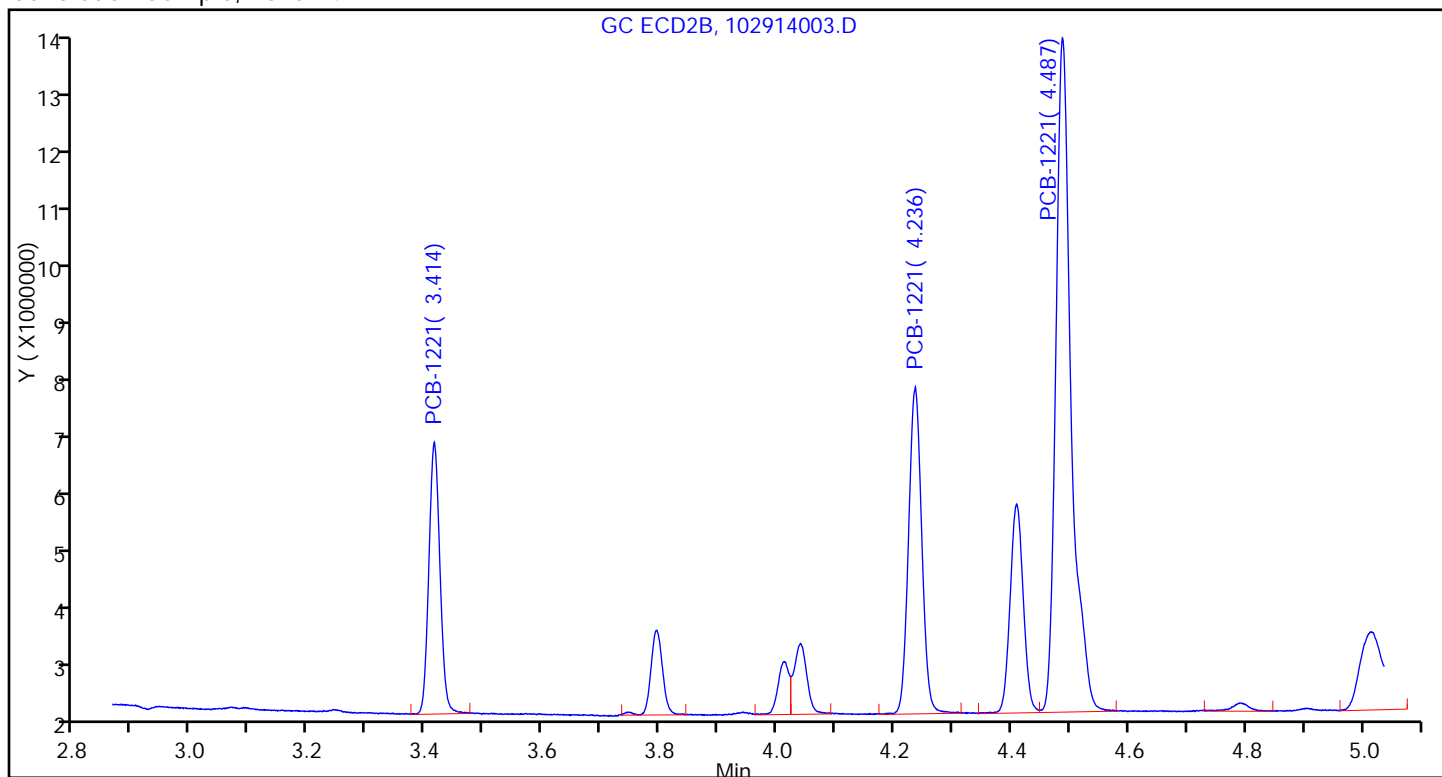
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

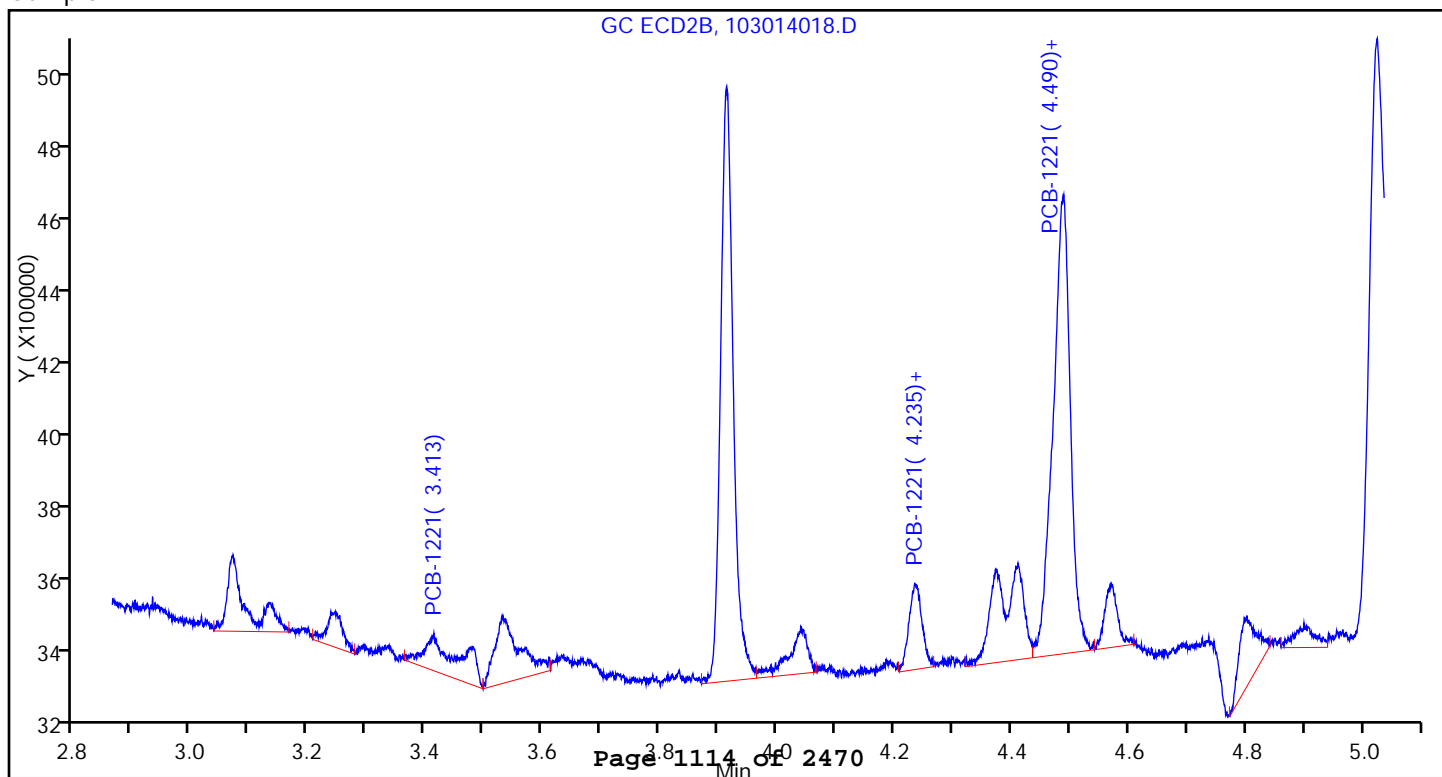
Detector: GC ECD2B

2 PCB-1221, CAS: 11104-28-2

Calibration Sample, Level: 4



Sample





Report Date: 31-Oct-2014 06:24:13

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

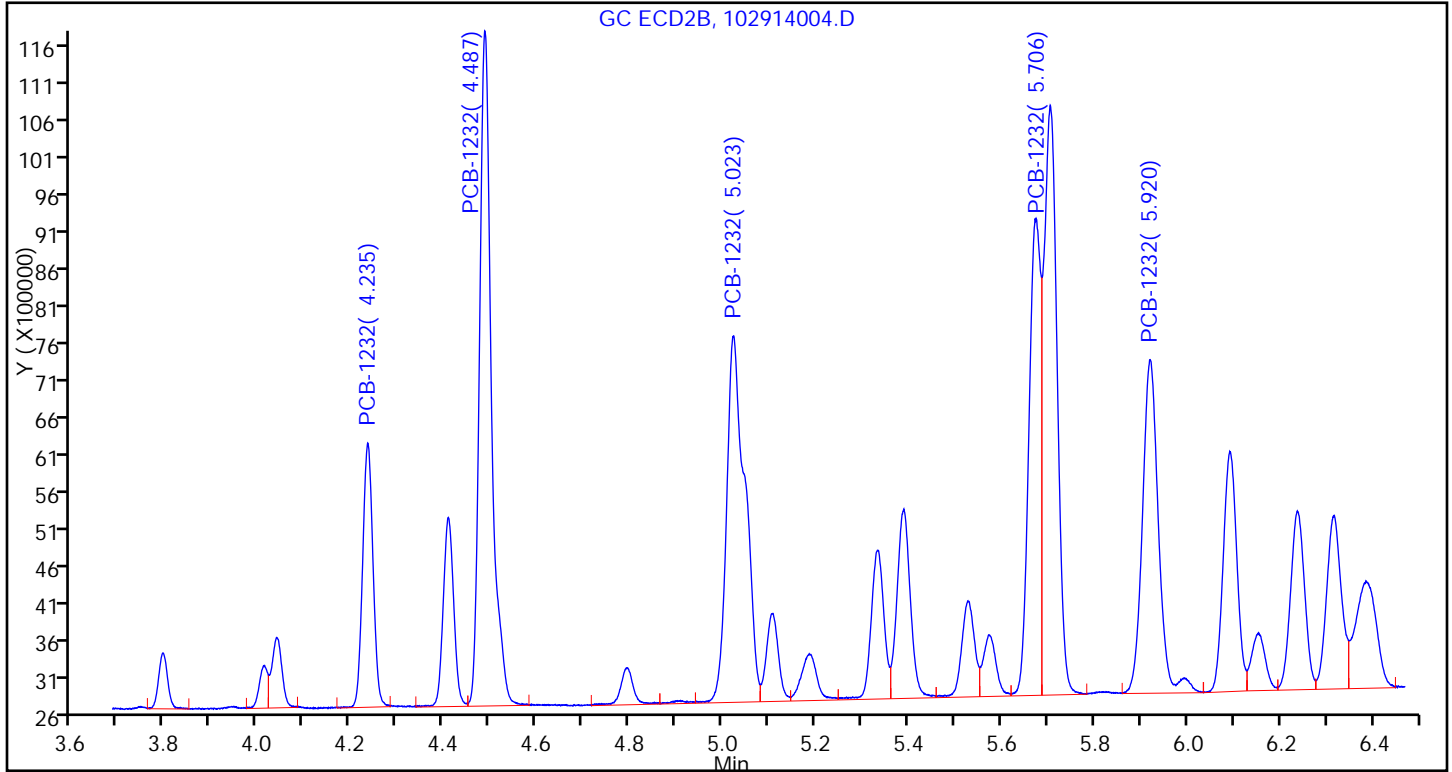
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

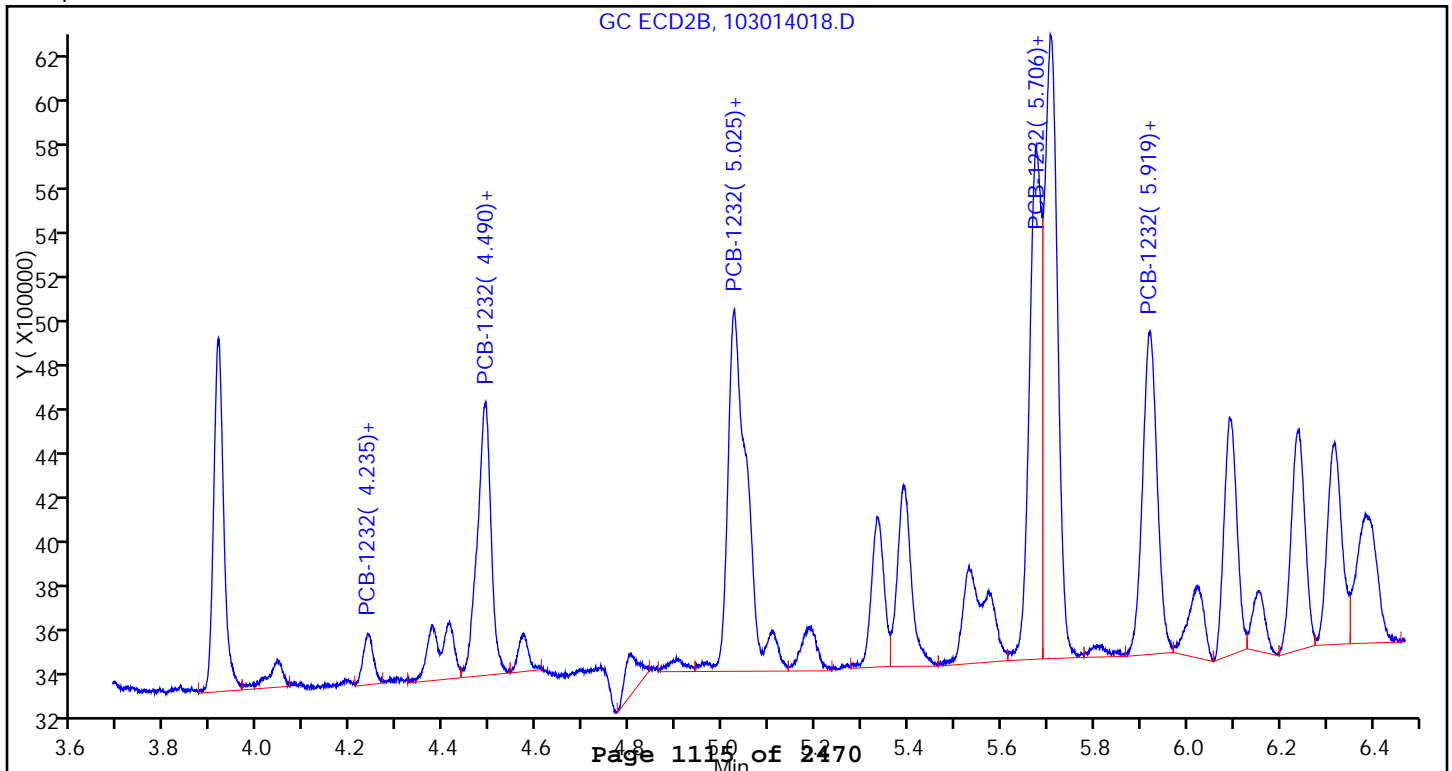
Detector GC ECD2B

5 PCB-1232, CAS: 11141-16-5

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:13

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

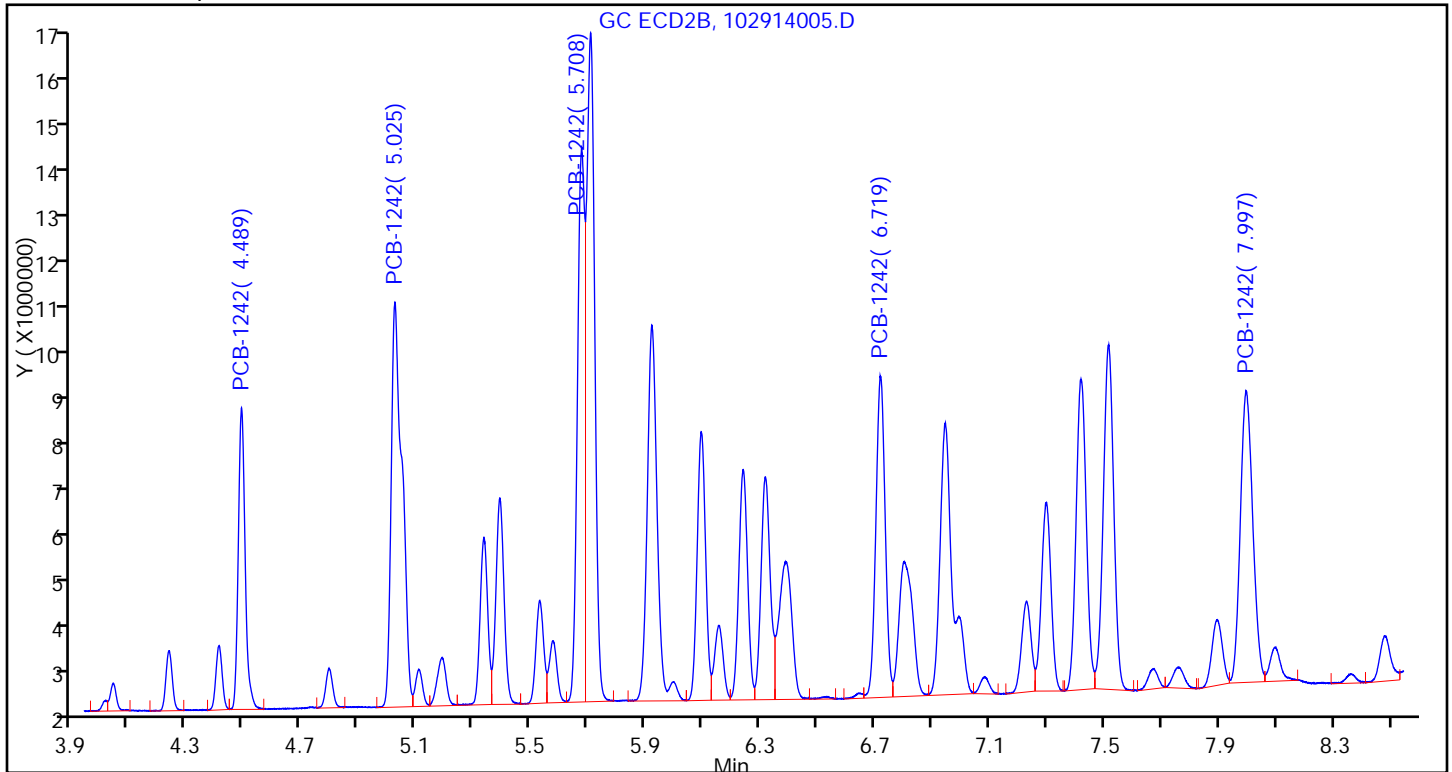
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

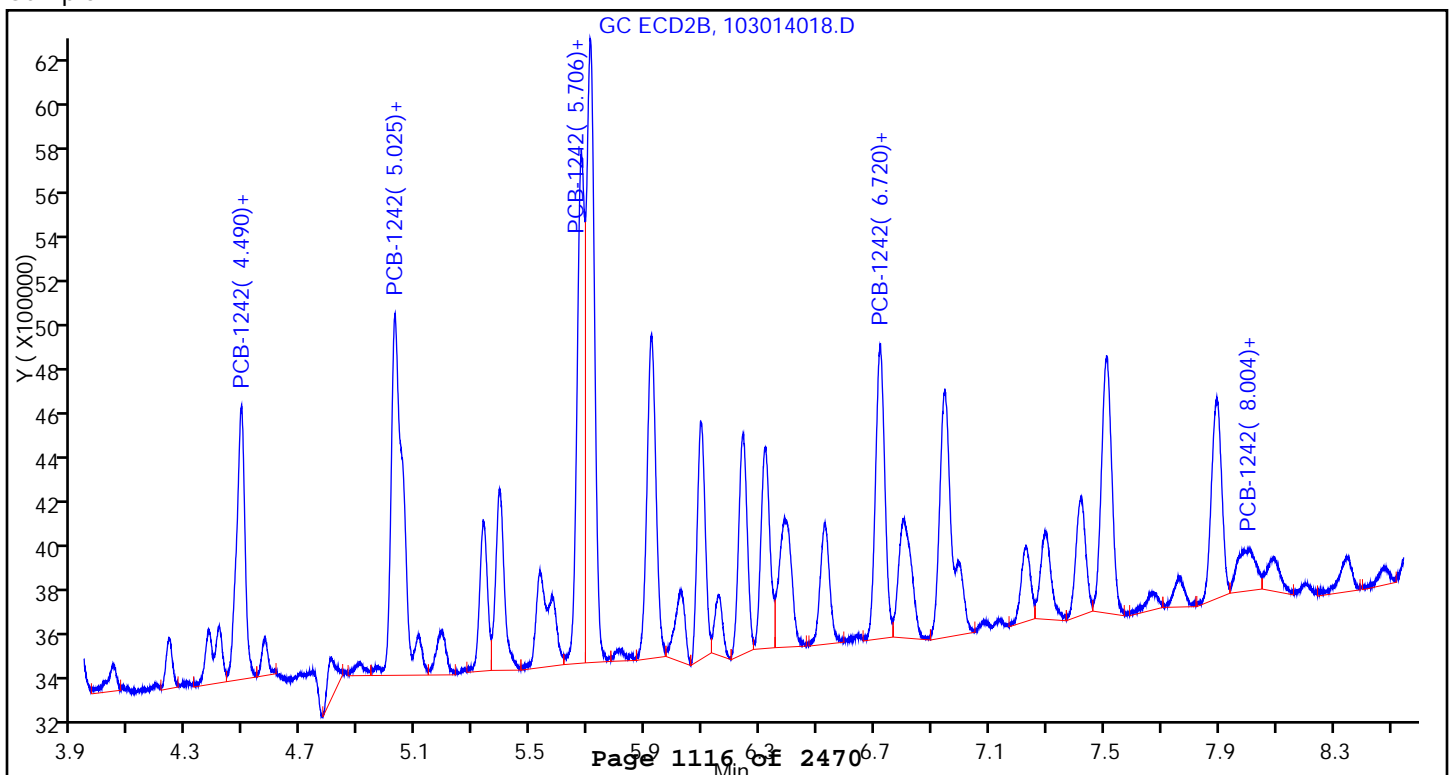
Detector GC ECD2B

3 PCB-1242, CAS: 53469-21-9

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:13

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

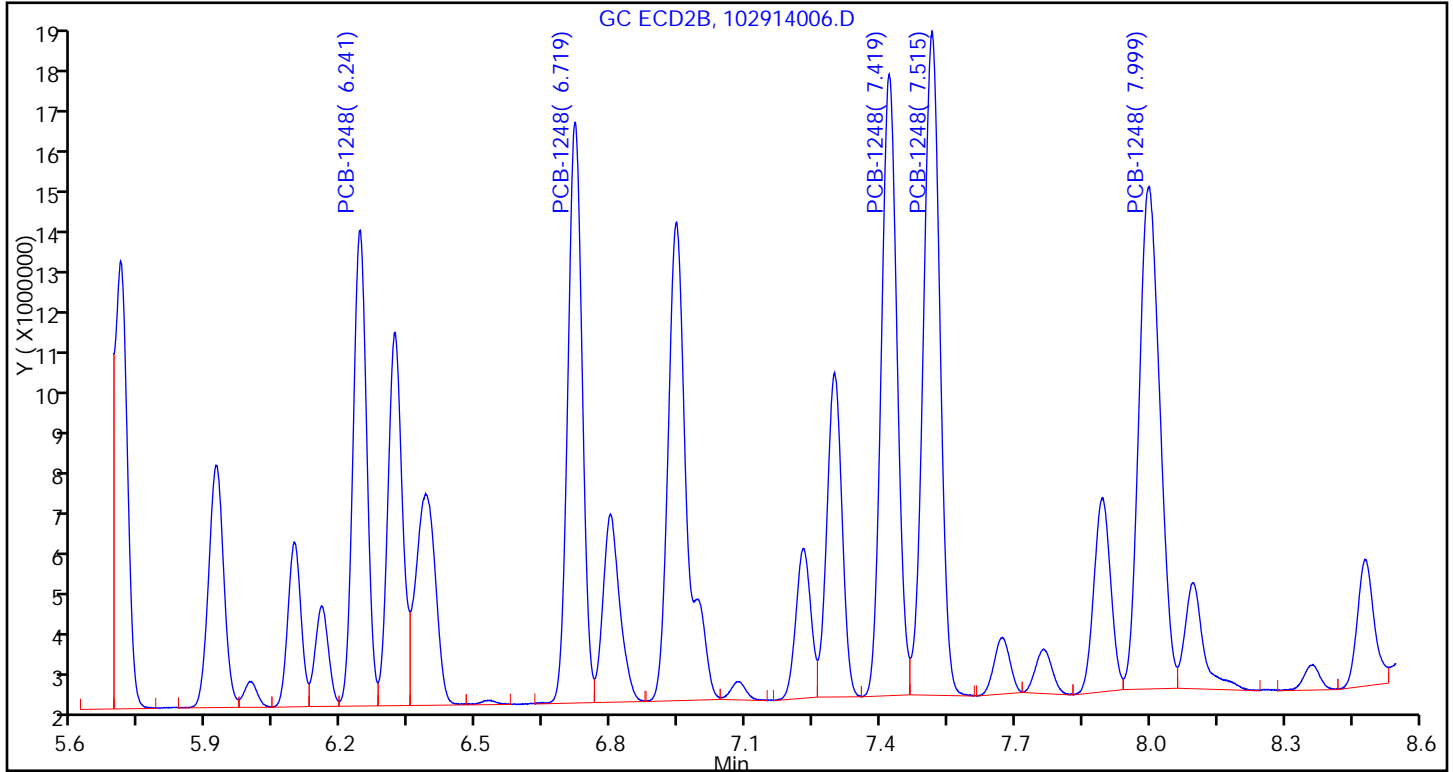
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

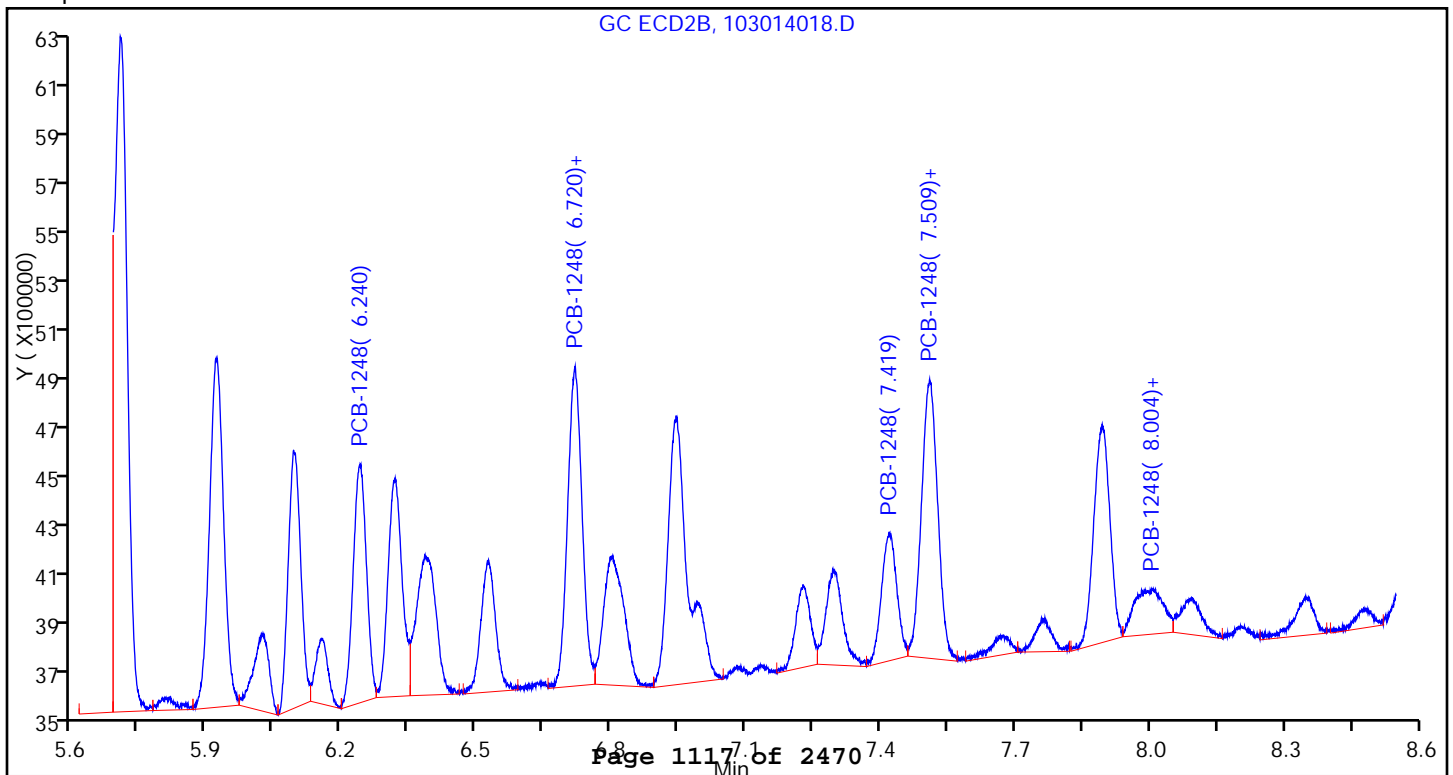
Detector: GC ECD2B

6 PCB-1248, CAS: 12672-29-6

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:14

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

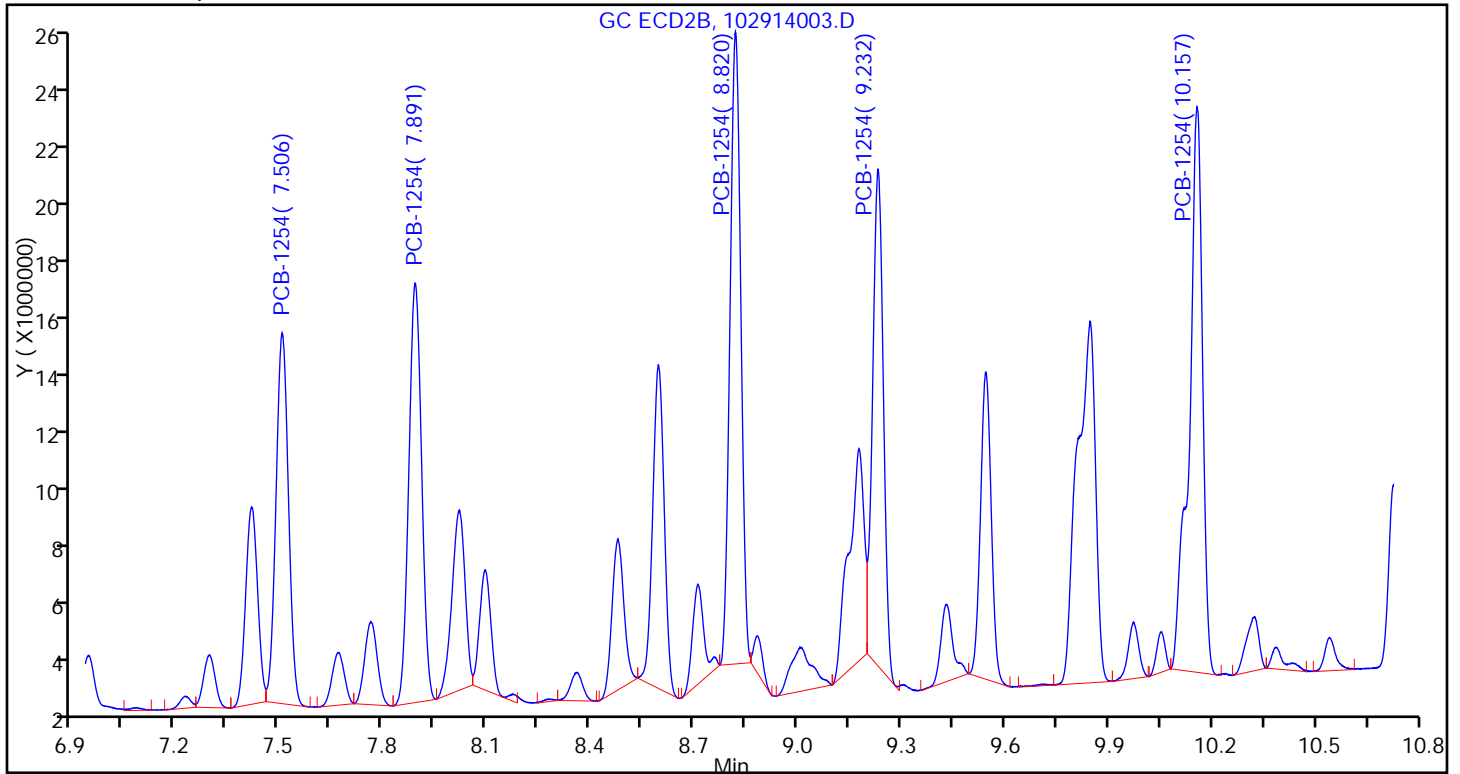
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

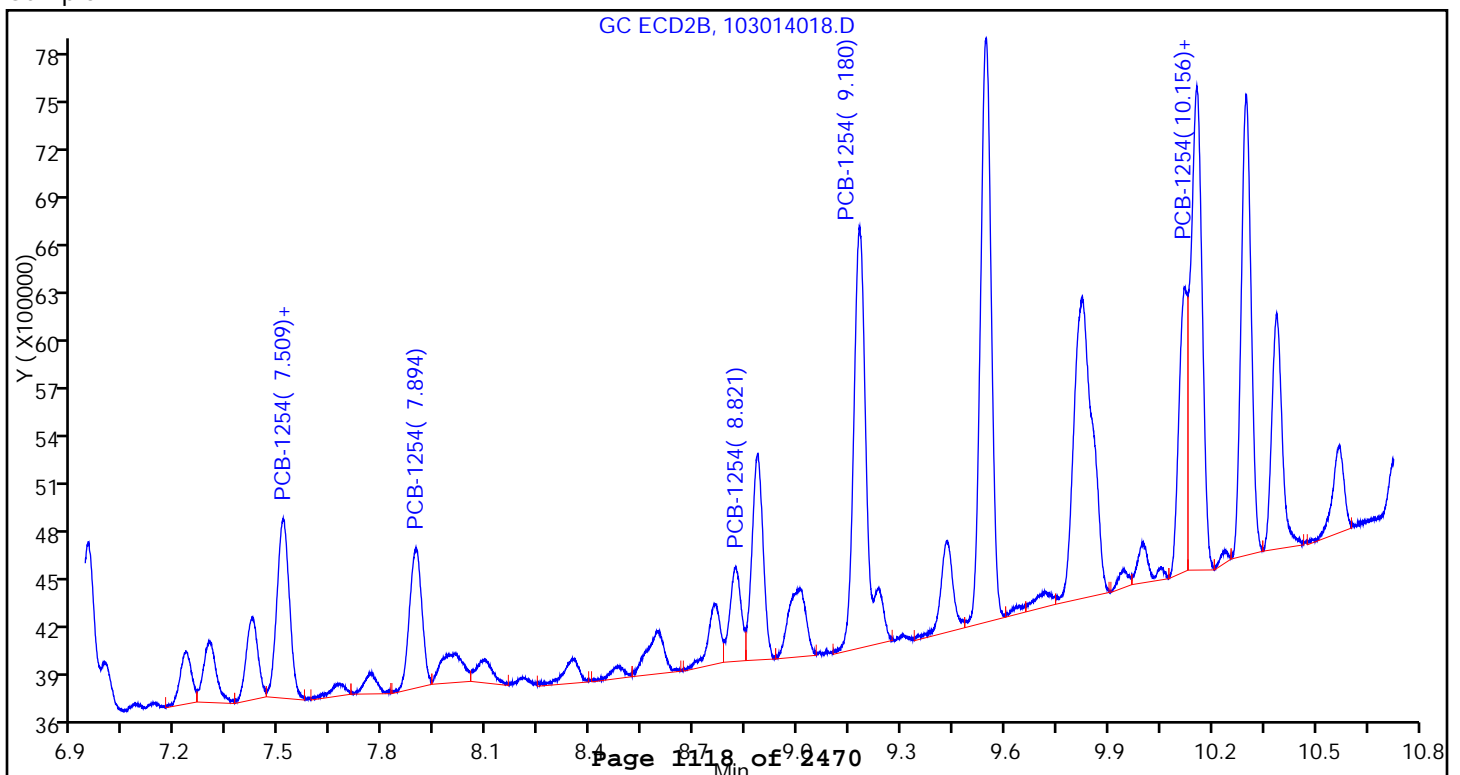
Detector: GC ECD2B

7 PCB-1254, CAS: 11097-69-1

Calibration Sample, Level: 4



Sample



Report Date: 31-Oct-2014 06:24:14

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHGC16\20141030-4088.b\103014018.D

Injection Date: 30-Oct-2014 12:09:01

Instrument ID: CHGC16

Lims ID: 180-37750-A-4-J MSD

Client ID: SD-B01

Operator ID: 402331

ALS Bottle#: 18

Worklist Smp#: 18

Injection Vol: 1.0 ul

Dil. Factor: 10.0000

Method: PCB\_CHGC16

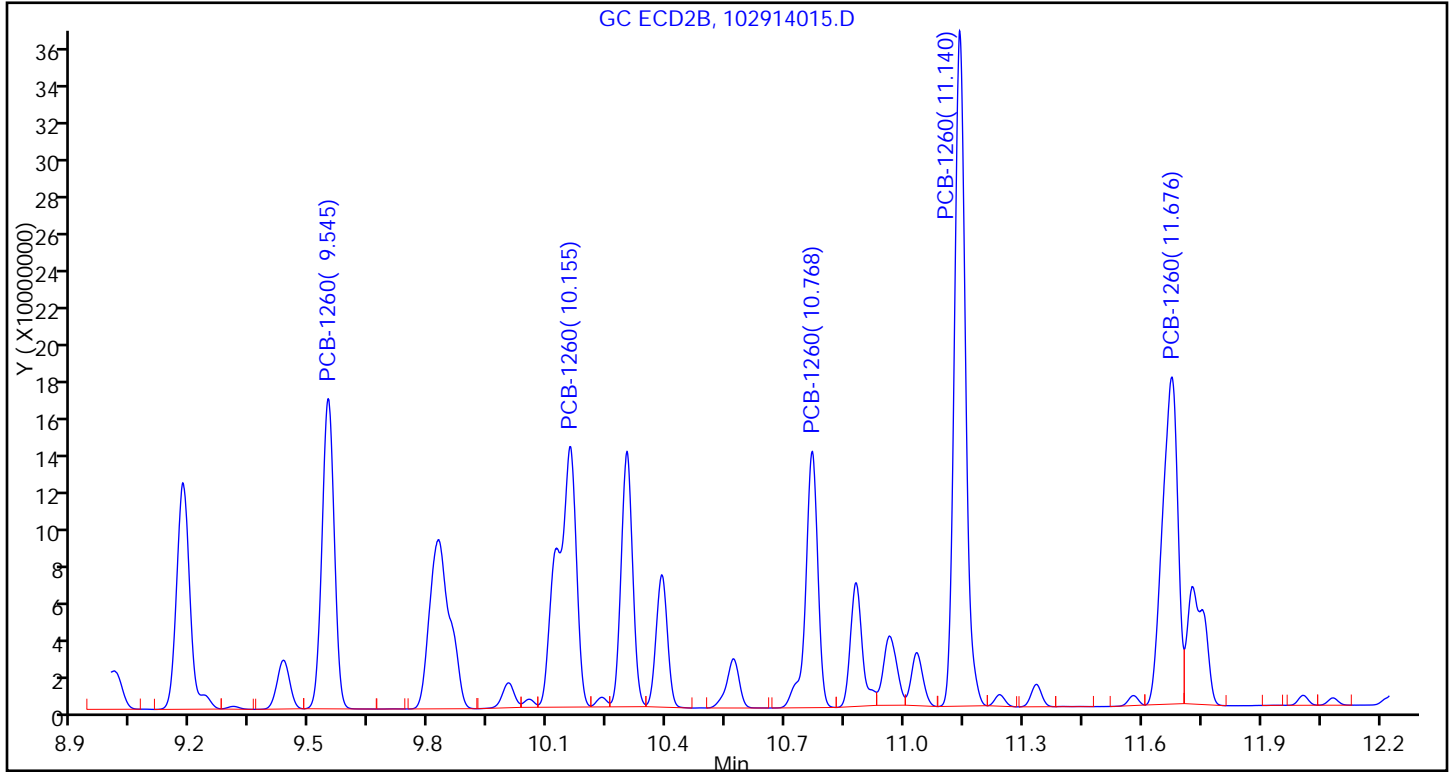
Limit Group: GCS 8082A ICAL

Column: Restek CLP2 (0.53 mm)

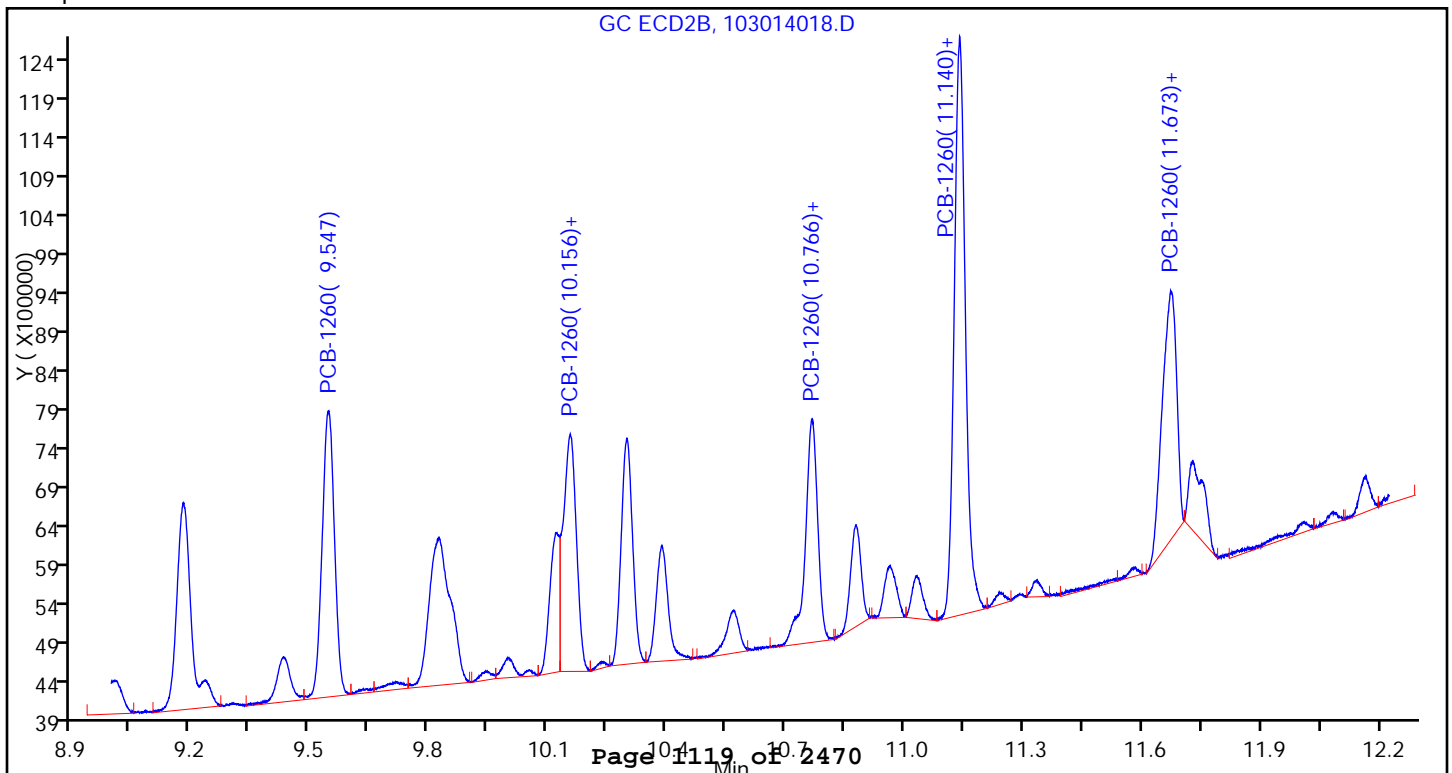
Detector: GC ECD2B

8 PCB-1260, CAS: 11096-82-5

Calibration Sample, Level: 7



Sample



## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16Start Date: 10/29/2014 08:31Analysis Batch Number: 123130End Date: 10/30/2014 05:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-123130/1		10/29/2014 08:31	1		RTX-CLP1 0.53 (mm)
IC 180-123130/1		10/29/2014 08:31	1	102914003.D	RTX-CLP2 0.53 (mm)
IC 180-123130/2		10/29/2014 08:51	1		RTX-CLP1 0.53 (mm)
IC 180-123130/2		10/29/2014 08:51	1	102914004.D	RTX-CLP2 0.53 (mm)
IC 180-123130/3		10/29/2014 09:10	1		RTX-CLP1 0.53 (mm)
IC 180-123130/3		10/29/2014 09:10	1	102914005.D	RTX-CLP2 0.53 (mm)
IC 180-123130/4		10/29/2014 09:29	1		RTX-CLP1 0.53 (mm)
IC 180-123130/4		10/29/2014 09:29	1	102914006.D	RTX-CLP2 0.53 (mm)
IC 180-123130/5		10/29/2014 09:48	1		RTX-CLP1 0.53 (mm)
IC 180-123130/5		10/29/2014 09:48	1		RTX-CLP2 0.53 (mm)
IC 180-123130/6		10/29/2014 10:07	1		RTX-CLP1 0.53 (mm)
IC 180-123130/6		10/29/2014 10:07	1		RTX-CLP2 0.53 (mm)
IC 180-123130/7		10/29/2014 10:27	1		RTX-CLP1 0.53 (mm)
IC 180-123130/7		10/29/2014 10:27	1	102914009.D	RTX-CLP2 0.53 (mm)
IC 180-123130/8		10/29/2014 10:46	1		RTX-CLP1 0.53 (mm)
IC 180-123130/8		10/29/2014 10:46	1	102914010.D	RTX-CLP2 0.53 (mm)
IC 180-123130/9		10/29/2014 11:05	1		RTX-CLP1 0.53 (mm)
IC 180-123130/9		10/29/2014 11:05	1	102914011.D	RTX-CLP2 0.53 (mm)
ICRT 180-123130/10		10/29/2014 11:25	1		RTX-CLP1 0.53 (mm)
ICRT 180-123130/10		10/29/2014 11:25	1	102914012.D	RTX-CLP2 0.53 (mm)
IC 180-123130/11		10/29/2014 11:44	1		RTX-CLP1 0.53 (mm)
IC 180-123130/11		10/29/2014 11:44	1	102914013.D	RTX-CLP2 0.53 (mm)
IC 180-123130/12		10/29/2014 12:03	1		RTX-CLP1 0.53 (mm)
IC 180-123130/12		10/29/2014 12:03	1	102914014.D	RTX-CLP2 0.53 (mm)
IC 180-123130/13		10/29/2014 12:22	1		RTX-CLP1 0.53 (mm)
IC 180-123130/13		10/29/2014 12:22	1	102914015.D	RTX-CLP2 0.53 (mm)
ICV 180-123130/14		10/29/2014 12:41	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/14		10/29/2014 12:41	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/15		10/29/2014 13:00	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/15		10/29/2014 13:00	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/16		10/29/2014 13:19	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/16		10/29/2014 13:19	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/17		10/29/2014 13:39	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/17		10/29/2014 13:39	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/18		10/29/2014 13:57	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/18		10/29/2014 13:57	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/19		10/29/2014 14:17	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/19		10/29/2014 14:17	1		RTX-CLP2 0.53 (mm)
ICV 180-123130/20		10/29/2014 14:35	1		RTX-CLP1 0.53 (mm)
ICV 180-123130/20		10/29/2014 14:35	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 15:14	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/29/2014 15:14	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 19:34	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/29/2014 19:34	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 19:53	10		RTX-CLP1 0.53 (mm)

## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 Start Date: 10/29/2014 08:31Analysis Batch Number: 123130 End Date: 10/30/2014 05:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/29/2014 19:53	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 20:12	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/29/2014 20:12	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 20:51	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/29/2014 20:51	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/29/2014 21:10	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/29/2014 21:10	1		RTX-CLP2 0.53 (mm)
CCV 180-123130/79		10/30/2014 05:10	1		RTX-CLP1 0.53 (mm)
CCV 180-123130/79		10/30/2014 05:10	1		RTX-CLP2 0.53 (mm)

## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16Start Date: 10/30/2014 06:42Analysis Batch Number: 123252End Date: 10/30/2014 23:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 180-123252/1		10/30/2014 06:42	1		RTX-CLP1 0.53 (mm)
CCVRT 180-123252/1		10/30/2014 06:42	1	103014001.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 07:01	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 07:01	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 07:20	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 07:20	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 07:39	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 07:39	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 07:59	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 07:59	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 08:18	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 08:18	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 08:37	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 08:37	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 08:56	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 08:56	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 09:15	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 09:15	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 09:35	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 09:35	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 09:54	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 09:54	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 10:13	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 10:13	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 10:32	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 10:32	1		RTX-CLP2 0.53 (mm)
CCV 180-123252/14		10/30/2014 10:51	1		RTX-CLP1 0.53 (mm)
CCV 180-123252/14		10/30/2014 10:51	1	103014014.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 11:11	1		RTX-CLP1 0.53 (mm)
MB 180-122691/1-C		10/30/2014 11:11	1	103014015.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 11:30	10		RTX-CLP1 0.53 (mm)
180-37750-4	SD-B01	10/30/2014 11:30	10	103014016.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 11:49	10		RTX-CLP1 0.53 (mm)
180-37750-4 MS	SD-B01 MS	10/30/2014 11:49	10	103014017.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 12:09	10		RTX-CLP1 0.53 (mm)
180-37750-4 MSD	SD-B01 MSD	10/30/2014 12:09	10	103014018.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 12:28	10		RTX-CLP1 0.53 (mm)
180-37750-5	SD-B02	10/30/2014 12:28	10	103014019.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 12:47	10		RTX-CLP1 0.53 (mm)
180-37750-6	SD-B02-FD	10/30/2014 12:47	10	103014020.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 13:06	10		RTX-CLP1 0.53 (mm)
180-37750-7	SD-C01	10/30/2014 13:06	10	103014021.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 13:25	10		RTX-CLP1 0.53 (mm)
180-37750-8	SD-C02	10/30/2014 13:25	10	103014022.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 13:44	10		RTX-CLP1 0.53 (mm)



## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16Start Date: 10/30/2014 06:42Analysis Batch Number: 123252End Date: 10/30/2014 23:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
180-37750-9	SD-C03	10/30/2014 13:44	10	103014023.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 14:03	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 14:03	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 14:23	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 14:23	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 14:42	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 14:42	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 15:02	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 15:02	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 15:21	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 15:21	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 15:41	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 15:41	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 16:00	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 16:00	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 16:19	1		RTX-CLP1 0.53 (mm)
LCS 180-122691/2-C		10/30/2014 16:19	1	103014031.D	RTX-CLP2 0.53 (mm)
CCV 180-123252/32		10/30/2014 16:38	1		RTX-CLP1 0.53 (mm)
CCV 180-123252/32		10/30/2014 16:38	1	103014032.D	RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 16:57	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 16:57	1		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 17:16	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 17:16	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 17:36	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 17:36	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 17:55	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 17:55	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 18:41	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 18:41	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 19:01	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 19:01	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 19:20	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 19:20	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 19:39	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 19:39	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 19:58	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 19:58	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 20:18	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 20:18	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 20:37	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 20:37	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 20:56	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 20:56	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 21:16	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 21:16	10		RTX-CLP2 0.53 (mm)

## GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: CHGC16 Start Date: 10/30/2014 06:42Analysis Batch Number: 123252 End Date: 10/30/2014 23:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/30/2014 21:35	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 21:35	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 21:54	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 21:54	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 22:13	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 22:13	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 22:33	10		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 22:33	10		RTX-CLP2 0.53 (mm)
ZZZZZ		10/30/2014 22:52	1		RTX-CLP1 0.53 (mm)
ZZZZZ		10/30/2014 22:52	1		RTX-CLP2 0.53 (mm)
CCV 180-123252/51		10/30/2014 23:11	1		RTX-CLP1 0.53 (mm)
CCV 180-123252/51		10/30/2014 23:11	1		RTX-CLP2 0.53 (mm)

## GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122691 Batch Start Date: 10/25/14 03:15 Batch Analyst: Geehring, KevinBatch Method: 3541 Batch End Date: 10/25/14 09:18

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialAmount	GCMATRIXWORKS 00011	OP/PESTPCBRTS 00002		
MB 180-122691/1		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g		100 uL		
LCS 180-122691/2		3541, 3665A, 3660B, 8082A		1.0 mL	30.0 g	25 uL	100 uL		
180-37750-A-4 MS	SD-B01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g	25 uL	100 uL		
180-37750-A-4 MSD	SD-B01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.2 g	25 uL	100 uL		
180-37750-C-4	SD-B01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		100 uL		
180-37750-C-5	SD-B02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		100 uL		
180-37750-A-6	SD-B02-FD	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.0 g		100 uL		
180-37750-A-7	SD-C01	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		100 uL		
180-37750-A-8	SD-C02	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		100 uL		
180-37750-A-9	SD-C03	3541, 3665A, 3660B, 8082A	T	1.0 mL	30.1 g		100 uL		

Batch Notes	
Balance ID	1120122641
Batch Comment	sox # 6 - 7 - 8
Person's name who did the concentration	kg
Exchange Solvent Lot #	1345111
Exchange Solvent Name	Hexane
Magnesium Sulfate Lot #	1361305
N-evap #	2
Na2SO4 Lot Number	1369078
Person's name who did the prep	kg kg
Solvent	Hexane/acetone
Solvent Lot #	1322532
Uncorrected N-evap Temperature	32 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122691 Batch Start Date: 10/25/14 03:15 Batch Analyst: Geehring, KevinBatch Method: 3541 Batch End Date: 10/25/14 09:18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122813 Batch Start Date: 10/27/14 08:14 Batch Analyst: Oravec, JohnBatch Method: 3665A Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WH2SO4ConcP 00038			
MB 180-122691/1-A		3665A, 3660B, 8082A		2 mL	2 mL	2 mL			
LCS 180-122691/2-A		3665A, 3660B, 8082A		2 mL	2 mL	2 mL			
180-37750-A-4-C MS	SD-B01	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-4-D MSD	SD-B01	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-C-4-E	SD-B01	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-C-5-B	SD-B02	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-6-B	SD-B02-FD	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-7-B	SD-C01	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-8-B	SD-C02	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-9-B	SD-C03	3665A, 3660B, 8082A	T	2 mL	2 mL	2 mL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122814 Batch Start Date: 10/27/14 08:15 Batch Analyst: Oravec, JohnBatch Method: 3660B Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	GCTBASOLUTION 00022			
MB 180-122691/1-B		3660B, 8082A		2 mL	2 mL	2 mL			
LCS 180-122691/2-B		3660B, 8082A		2 mL	2 mL	2 mL			
180-37750-A-4-G MS	SD-B01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-4-H MSD	SD-B01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-C-4-G	SD-B01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-C-5-D	SD-B02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-6-D	SD-B02-FD	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-7-D	SD-C01	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-8-D	SD-C02	3660B, 8082A	T	2 mL	2 mL	2 mL			
180-37750-A-9-D	SD-C03	3660B, 8082A	T	2 mL	2 mL	2 mL			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS

COVER PAGE  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

Project: Sparrows Point Trust Offshore Investigat

Client Sample ID	Lab Sample ID
SD-A01	180-37750-1
SD-A02	180-37750-2
SD-A03	180-37750-3
SD-B01	180-37750-4
SD-B02	180-37750-5
SD-B02-FD	180-37750-6
SD-C01	180-37750-7
SD-C02	180-37750-8
SD-C03	180-37750-9

Comments:



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-A01</u>	Lab Sample ID: <u>180-37750-1</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 11:45</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>68.5</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	1.8	0.073	0.013	mg/Kg			1	6020A
7440-43-9	Cadmium	0.94	0.073	0.0051	mg/Kg			1	6020A
7440-47-3	Chromium	46	0.15	0.0044	mg/Kg		B	1	6020A
7439-92-1	Lead	13	0.073	0.0028	mg/Kg		B	1	6020A
7782-49-2	Selenium	0.17	0.36	0.036	mg/Kg	J		1	6020A
7440-22-4	Silver	0.047	0.073	0.0028	mg/Kg	J		1	6020A
7440-41-7	Beryllium	0.082	0.073	0.0054	mg/Kg			1	6020A
7440-28-0	Thallium	0.047	0.073	0.0015	mg/Kg	J		1	6020A
7440-36-0	Antimony	0.17	0.15	0.0019	mg/Kg			1	6020A
7440-02-0	Nickel	3.7	0.073	0.0082	mg/Kg			1	6020A
7440-66-6	Zinc	130	0.36	0.047	mg/Kg		B	1	6020A
7440-50-8	Copper	8.7	0.15	0.024	mg/Kg			1	6020A
7439-97-6	Mercury	0.018	0.024	0.0080	mg/Kg	J		1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-A01</u>	Lab Sample ID: <u>180-37750-1</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 11:45</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>68.5</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	0.92	0.18	0.0060	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.0082	0.0016	0.000053	umol/g			1	6010B
7440-50-8	Copper SEM	7.0	0.91	0.082	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.11	0.014	0.0013	umol/g		B	1	6010B
7439-92-1	Lead SEM	10	0.36	0.072	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.049	0.0018	0.00035	umol/g			1	6010B
7440-02-0	Nickel SEM	1.9	1.5	0.042	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.033	0.025	0.00071	umol/g			1	6010B
7440-66-6	Zinc SEM	130	3.6	0.27	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	2.0	0.056	0.0041	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-A01 Lab Sample ID: 180-37750-1  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment Date Sampled: 10/13/2014 11:45  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	NC	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-A02</u>	Lab Sample ID: <u>180-37750-2</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 11:15</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>34.3</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	17	0.14	0.025	mg/Kg			1	6020A
7440-43-9	Cadmium	5.4	0.14	0.0099	mg/Kg			1	6020A
7440-47-3	Chromium	400	0.28	0.0086	mg/Kg		B	1	6020A
7439-92-1	Lead	160	0.14	0.0054	mg/Kg		B	1	6020A
7782-49-2	Selenium	2.0	0.70	0.071	mg/Kg			1	6020A
7440-22-4	Silver	0.86	0.14	0.0055	mg/Kg			1	6020A
7440-41-7	Beryllium	0.72	0.14	0.011	mg/Kg			1	6020A
7440-28-0	Thallium	0.40	0.14	0.0028	mg/Kg			1	6020A
7440-36-0	Antimony	1.5	0.28	0.0037	mg/Kg			1	6020A
7440-02-0	Nickel	30	0.14	0.016	mg/Kg			1	6020A
7440-66-6	Zinc	980	0.70	0.091	mg/Kg		B	1	6020A
7440-50-8	Copper	98	0.28	0.046	mg/Kg			1	6020A
7439-97-6	Mercury	0.26	0.048	0.016	mg/Kg			1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-A02</u>	Lab Sample ID: <u>180-37750-2</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 11:15</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>34.3</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	3.8	0.37	0.012	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.034	0.0033	0.00011	umol/g			1	6010B
7440-50-8	Copper SEM	40	1.8	0.16	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.62	0.029	0.0026	umol/g		B	1	6010B
7439-92-1	Lead SEM	86	0.73	0.15	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.41	0.0035	0.00070	umol/g			1	6010B
7440-02-0	Nickel SEM	15	2.9	0.084	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.26	0.050	0.0014	umol/g			1	6010B
7440-66-6	Zinc SEM	680	7.3	0.54	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	10	0.11	0.0083	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-A02 Lab Sample ID: 180-37750-2  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 11:15  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	0.51	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-A03</u>	Lab Sample ID: <u>180-37750-3</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 10:20</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>22.7</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	26	0.23	0.041	mg/Kg			1	6020A
7440-43-9	Cadmium	7.1	0.23	0.016	mg/Kg			1	6020A
7440-47-3	Chromium	760	0.45	0.014	mg/Kg		B	1	6020A
7439-92-1	Lead	240	0.23	0.0086	mg/Kg		B	1	6020A
7782-49-2	Selenium	2.8	1.1	0.11	mg/Kg			1	6020A
7440-22-4	Silver	1.6	0.23	0.0088	mg/Kg			1	6020A
7440-41-7	Beryllium	1.0	0.23	0.017	mg/Kg			1	6020A
7440-28-0	Thallium	0.55	0.23	0.0045	mg/Kg			1	6020A
7440-36-0	Antimony	2.5	0.45	0.0059	mg/Kg			1	6020A
7440-02-0	Nickel	46	0.23	0.025	mg/Kg			1	6020A
7440-66-6	Zinc	1400	1.1	0.15	mg/Kg		B	1	6020A
7440-50-8	Copper	160	0.45	0.074	mg/Kg			1	6020A
7439-97-6	Mercury	0.36	0.070	0.023	mg/Kg			1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-A03</u>	Lab Sample ID: <u>180-37750-3</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 10:20</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>22.7</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	6.4	0.55	0.018	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.057	0.0049	0.00016	umol/g			1	6010B
7440-50-8	Copper SEM	120	2.8	0.25	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	1.8	0.043	0.0039	umol/g		B	1	6010B
7439-92-1	Lead SEM	160	1.1	0.22	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.79	0.0053	0.0011	umol/g			1	6010B
7440-02-0	Nickel SEM	29	4.4	0.13	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.49	0.075	0.0022	umol/g			1	6010B
7440-66-6	Zinc SEM	1200	11	0.82	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	18	0.17	0.012	umol/g		B	1	6010B



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-A03 Lab Sample ID: 180-37750-3  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 10:20  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	0.53	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-B01</u>	Lab Sample ID: <u>180-37750-4</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 12:50</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>70.7</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	1.7	0.074	0.013	mg/Kg			1	6020A
7440-43-9	Cadmium	0.78	0.074	0.0052	mg/Kg			1	6020A
7440-47-3	Chromium	33	0.15	0.0045	mg/Kg		B	1	6020A
7439-92-1	Lead	9.7	0.074	0.0028	mg/Kg		B	1	6020A
7782-49-2	Selenium	0.12	0.37	0.037	mg/Kg	J		1	6020A
7440-22-4	Silver	0.026	0.074	0.0029	mg/Kg	J		1	6020A
7440-41-7	Beryllium	0.053	0.074	0.0055	mg/Kg	J		1	6020A
7440-28-0	Thallium	0.033	0.074	0.0015	mg/Kg	J		1	6020A
7440-36-0	Antimony	0.12	0.15	0.0019	mg/Kg	J		1	6020A
7440-02-0	Nickel	2.2	0.074	0.0083	mg/Kg			1	6020A
7440-66-6	Zinc	99	0.37	0.048	mg/Kg		B	1	6020A
7440-50-8	Copper	5.5	0.15	0.024	mg/Kg			1	6020A
7439-97-6	Mercury	0.0096	0.022	0.0074	mg/Kg	J		1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-B01</u>	Lab Sample ID: <u>180-37750-4</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 12:50</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>70.7</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	0.81	0.18	0.0058	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.0072	0.0016	0.000052	umol/g			1	6010B
7440-50-8	Copper SEM	4.8	0.88	0.079	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.075	0.014	0.0012	umol/g		B	1	6010B
7439-92-1	Lead SEM	7.8	0.35	0.070	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.037	0.0017	0.00034	umol/g			1	6010B
7440-02-0	Nickel SEM	1.7	1.4	0.041	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.029	0.024	0.00069	umol/g			1	6010B
7440-66-6	Zinc SEM	100	3.5	0.26	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	1.6	0.054	0.0040	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-B01  
Lab Name: TestAmerica Pittsburgh  
SDG ID.:  
Matrix: Sediment  
Reporting Basis: WET

Lab Sample ID: 180-37750-4  
Job No.: 180-37750-1  
Date Sampled: 10/13/2014 12:50  
Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	NC	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-B02</u>	Lab Sample ID: <u>180-37750-5</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 12:10</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>24.0</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	27	0.20	0.035	mg/Kg			1	6020A
7440-43-9	Cadmium	9.2	0.20	0.014	mg/Kg			1	6020A
7440-47-3	Chromium	790	0.39	0.012	mg/Kg		B	1	6020A
7439-92-1	Lead	260	0.20	0.0074	mg/Kg		B	1	6020A
7782-49-2	Selenium	3.1	0.98	0.098	mg/Kg			1	6020A
7440-22-4	Silver	1.7	0.20	0.0076	mg/Kg			1	6020A
7440-41-7	Beryllium	1.0	0.20	0.015	mg/Kg			1	6020A
7440-28-0	Thallium	0.58	0.20	0.0039	mg/Kg			1	6020A
7440-36-0	Antimony	2.7	0.39	0.0051	mg/Kg			1	6020A
7440-02-0	Nickel	46	0.20	0.022	mg/Kg			1	6020A
7440-66-6	Zinc	1600	0.98	0.13	mg/Kg		B	1	6020A
7440-50-8	Copper	160	0.39	0.065	mg/Kg			1	6020A
7439-97-6	Mercury	0.46	0.068	0.022	mg/Kg			1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-B02</u>	Lab Sample ID: <u>180-37750-5</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 12:10</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>24.0</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	8.2	0.52	0.017	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.073	0.0046	0.00015	umol/g			1	6010B
7440-50-8	Copper SEM	110	2.6	0.23	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	1.8	0.041	0.0037	umol/g		B	1	6010B
7439-92-1	Lead SEM	180	2.1	0.41	mg/Kg			2	6010B
7439-92-1	Lead SEM	0.85	0.010	0.0020	umol/g			2	6010B
7440-02-0	Nickel SEM	29	8.3	0.24	mg/Kg			2	6010B
7440-02-0	Nickel SEM	0.50	0.14	0.0041	umol/g			2	6010B
7440-66-6	Zinc SEM	1400	10	0.77	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	21	0.16	0.012	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-B02 Lab Sample ID: 180-37750-5  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 12:10  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	0.63	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG ID.: \_\_\_\_\_

Matrix: Sediment Date Sampled: 10/13/2014 12:10

Reporting Basis: DRY Date Received: 10/15/2014 09:30

% Solids: 27.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	24	0.17	0.030	mg/Kg			1	6020A
7440-43-9	Cadmium	8.3	0.17	0.012	mg/Kg			1	6020A
7440-47-3	Chromium	710	0.34	0.010	mg/Kg		B	1	6020A
7439-92-1	Lead	230	0.17	0.0064	mg/Kg		B	1	6020A
7782-49-2	Selenium	2.6	0.84	0.084	mg/Kg			1	6020A
7440-22-4	Silver	1.5	0.17	0.0065	mg/Kg			1	6020A
7440-41-7	Beryllium	0.94	0.17	0.013	mg/Kg			1	6020A
7440-28-0	Thallium	0.52	0.17	0.0034	mg/Kg			1	6020A
7440-36-0	Antimony	2.5	0.34	0.0044	mg/Kg			1	6020A
7440-02-0	Nickel	41	0.17	0.019	mg/Kg			1	6020A
7440-66-6	Zinc	1500	0.84	0.11	mg/Kg		B	1	6020A
7440-50-8	Copper	140	0.34	0.055	mg/Kg			1	6020A
7439-97-6	Mercury	0.36	0.060	0.020	mg/Kg			1	7471A



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-B02-FD</u>	Lab Sample ID: <u>180-37750-6</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 12:10</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>27.1</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	7.1	0.46	0.015	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.063	0.0041	0.00013	umol/g			1	6010B
7440-50-8	Copper SEM	96	2.3	0.21	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	1.5	0.036	0.0033	umol/g		B	1	6010B
7439-92-1	Lead SEM	150	1.8	0.36	mg/Kg			2	6010B
7439-92-1	Lead SEM	0.73	0.0089	0.0018	umol/g			2	6010B
7440-02-0	Nickel SEM	28	7.4	0.21	mg/Kg			2	6010B
7440-02-0	Nickel SEM	0.47	0.13	0.0036	umol/g			2	6010B
7440-66-6	Zinc SEM	1200	9.2	0.68	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	19	0.14	0.010	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 12:10  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	0.67	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-C01</u>	Lab Sample ID: <u>180-37750-7</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 15:30</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>67.8</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	1.6	0.065	0.012	mg/Kg			1	6020A
7440-43-9	Cadmium	0.73	0.065	0.0045	mg/Kg			1	6020A
7440-47-3	Chromium	32	0.13	0.0040	mg/Kg		B	1	6020A
7439-92-1	Lead	11	0.065	0.0025	mg/Kg		B	1	6020A
7782-49-2	Selenium	0.12	0.32	0.033	mg/Kg	J		1	6020A
7440-22-4	Silver	0.030	0.065	0.0025	mg/Kg	J		1	6020A
7440-41-7	Beryllium	0.056	0.065	0.0049	mg/Kg	J		1	6020A
7440-28-0	Thallium	0.034	0.065	0.0013	mg/Kg	J		1	6020A
7440-36-0	Antimony	0.13	0.13	0.0017	mg/Kg			1	6020A
7440-02-0	Nickel	2.7	0.065	0.0073	mg/Kg			1	6020A
7440-66-6	Zinc	98	0.32	0.042	mg/Kg		B	1	6020A
7440-50-8	Copper	5.6	0.13	0.021	mg/Kg			1	6020A
7439-97-6	Mercury	0.0079	0.023	0.0075	mg/Kg	J		1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-C01</u>	Lab Sample ID: <u>180-37750-7</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 15:30</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>67.8</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	0.65	0.18	0.0061	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.0058	0.0016	0.000054	umol/g			1	6010B
7440-50-8	Copper SEM	4.3	0.92	0.083	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.067	0.015	0.0013	umol/g		B	1	6010B
7439-92-1	Lead SEM	7.3	0.37	0.073	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.035	0.0018	0.00035	umol/g			1	6010B
7440-02-0	Nickel SEM	1.6	1.5	0.042	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.027	0.025	0.00072	umol/g			1	6010B
7440-66-6	Zinc SEM	90	3.7	0.27	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	1.4	0.056	0.0042	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment Date Sampled: 10/13/2014 15:30  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	NC	0.0010	0.0010	NONE			1	SEM

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-C02</u>	Lab Sample ID: <u>180-37750-8</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 14:50</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>57.9</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	7.1	0.083	0.015	mg/Kg			1	6020A
7440-43-9	Cadmium	3.0	0.083	0.0058	mg/Kg			1	6020A
7440-47-3	Chromium	130	0.17	0.0051	mg/Kg		B	1	6020A
7439-92-1	Lead	51	0.083	0.0032	mg/Kg		B	1	6020A
7782-49-2	Selenium	0.77	0.42	0.042	mg/Kg			1	6020A
7440-22-4	Silver	0.23	0.083	0.0033	mg/Kg			1	6020A
7440-41-7	Beryllium	0.24	0.083	0.0063	mg/Kg			1	6020A
7440-28-0	Thallium	0.11	0.083	0.0017	mg/Kg			1	6020A
7440-36-0	Antimony	0.41	0.17	0.0022	mg/Kg			1	6020A
7440-02-0	Nickel	8.6	0.083	0.0094	mg/Kg			1	6020A
7440-66-6	Zinc	380	0.42	0.054	mg/Kg		B	1	6020A
7440-50-8	Copper	28	0.17	0.028	mg/Kg			1	6020A
7439-97-6	Mercury	0.086	0.028	0.0092	mg/Kg			1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-C02</u>	Lab Sample ID: <u>180-37750-8</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 14:50</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>57.9</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	2.9	0.22	0.0071	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.025	0.0019	0.000063	umol/g			1	6010B
7440-50-8	Copper SEM	23	1.1	0.097	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.37	0.017	0.0015	umol/g		B	1	6010B
7439-92-1	Lead SEM	38	0.43	0.085	mg/Kg			1	6010B
7439-92-1	Lead SEM	0.18	0.0021	0.00041	umol/g			1	6010B
7440-02-0	Nickel SEM	7.4	1.7	0.049	mg/Kg			1	6010B
7440-02-0	Nickel SEM	0.13	0.029	0.00084	umol/g			1	6010B
7440-66-6	Zinc SEM	360	4.3	0.32	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	5.5	0.066	0.0049	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-C02 Lab Sample ID: 180-37750-8  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 14:50  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	0.57	0.0010	0.0010	NONE			1	SEM



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: <u>SD-C03</u>	Lab Sample ID: <u>180-37750-9</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 14:30</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>23.4</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	28	0.21	0.039	mg/Kg			1	6020A
7440-43-9	Cadmium	8.5	0.21	0.015	mg/Kg			1	6020A
7440-47-3	Chromium	800	0.43	0.013	mg/Kg		B	1	6020A
7439-92-1	Lead	250	0.21	0.0081	mg/Kg		B	1	6020A
7782-49-2	Selenium	3.1	1.1	0.11	mg/Kg			1	6020A
7440-22-4	Silver	1.7	0.21	0.0083	mg/Kg			1	6020A
7440-41-7	Beryllium	1.0	0.21	0.016	mg/Kg			1	6020A
7440-28-0	Thallium	0.54	0.21	0.0043	mg/Kg			1	6020A
7440-36-0	Antimony	2.6	0.43	0.0055	mg/Kg			1	6020A
7440-02-0	Nickel	46	0.21	0.024	mg/Kg			1	6020A
7440-66-6	Zinc	1500	1.1	0.14	mg/Kg		B	1	6020A
7440-50-8	Copper	170	0.43	0.070	mg/Kg			1	6020A
7439-97-6	Mercury	0.42	0.068	0.023	mg/Kg			1	7471A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: <u>SD-C03</u>	Lab Sample ID: <u>180-37750-9</u>
Lab Name: <u>TestAmerica Pittsburgh</u>	Job No.: <u>180-37750-1</u>
SDG ID.: _____	
Matrix: <u>Sediment</u>	Date Sampled: <u>10/13/2014 14:30</u>
Reporting Basis: <u>DRY</u>	Date Received: <u>10/15/2014 09:30</u>
% Solids: <u>23.4</u>	

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium SEM	7.9	0.53	0.017	mg/Kg			1	6010B
7440-43-9	Cadmium SEM	0.070	0.0047	0.00016	umol/g			1	6010B
7440-50-8	Copper SEM	55	2.7	0.24	mg/Kg		B	1	6010B
7440-50-8	Copper SEM	0.86	0.042	0.0038	umol/g		B	1	6010B
7439-92-1	Lead SEM	170	2.1	0.42	mg/Kg			2	6010B
7439-92-1	Lead SEM	0.84	0.010	0.0020	umol/g			2	6010B
7440-02-0	Nickel SEM	32	8.5	0.24	mg/Kg			2	6010B
7440-02-0	Nickel SEM	0.55	0.15	0.0042	umol/g			2	6010B
7440-66-6	Zinc SEM	1300	11	0.79	mg/Kg		B	1	6010B
7440-66-6	Zinc SEM	20	0.16	0.012	umol/g		B	1	6010B

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS - SEM/AVS

Client Sample ID: SD-C03 Lab Sample ID: 180-37750-9  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 14:30  
Reporting Basis: WET Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	SEM/AVS Ratio	1.0	0.0010	0.0010	NONE			1	SEM

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICV1\_00044 Concentration Units: ug/L

CCV Source: MCCV1\_00133

Analyte	ICV 180-123073/4 10/28/2014 05:46				CCV 180-123073/9 10/28/2014 06:11				CCV 180-123073/147 10/28/2014 18:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Cadmium SEM</b>	252		250	101	514		500	103	517		500	103
<b>Copper SEM</b>	983		1000	98	1920		2000	96	1900		2000	95
<b>Lead SEM</b>	252		250	101	514		500	103	502		500	100
<b>Nickel SEM</b>	1020		1000	102	2080		2000	104	2060		2000	103
<b>Zinc SEM</b>	998		1000	100	1990		2000	100	1980		2000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICV1\_00044 Concentration Units: ug/L

CCV Source: MCCV1\_00133

Analyte	CCV 180-123073/159 10/28/2014 19:07				CCV 180-123073/171 10/28/2014 20:07							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Cadmium SEM</b>	515		500	103	518		500	104				
<b>Copper SEM</b>	1880		2000	94	1900		2000	95				
<b>Lead SEM</b>	500		500	100	507		500	101				
<b>Nickel SEM</b>	2050		2000	103	2070		2000	104				
<b>Zinc SEM</b>	1970		2000	98	1990		2000	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICV1\_00044 Concentration Units: ug/L

CCV Source: MCCV1\_00133

Analyte	ICV 180-123209/4 10/29/2014 05:12				ICV 180-123209/5 10/29/2014 05:17				CCV 180-123209/10 10/29/2014 05:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Lead SEM</b>	250		250	100	250		250	100	511		500	102
<b>Nickel SEM</b>	1010		1000	101	1010		1000	101	2080		2000	104
<i>Cadmium</i>	254		250	102	254		250	102	519		500	104
<i>Copper</i>	976		1000	98	972		1000	97	1910		2000	96
<i>Zinc</i>	1000		1000	100	1000		1000	100	1980		2000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICV1\_00044 Concentration Units: ug/L

CCV Source: MCCV1\_00133

Analyte	CCV 180-123209/90 10/29/2014 12:33				CCV 180-123209/100 10/29/2014 13:24							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Lead SEM</b>	506		500	101	503		500	101				
<b>Nickel SEM</b>	2050		2000	103	2050		2000	102				
<i>Cadmium</i>	522		500	104	520		500	104				
<i>Copper</i>	1870		2000	94	1870		2000	94				
<i>Zinc</i>	1960		2000	98	1960		2000	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00024 Concentration Units: ug/L

CCV Source: MCCV1X\_00068

Analyte	ICV 180-123945/5 11/04/2014 13:50				CCV 180-123945/10 11/04/2014 14:21				CCV 180-123945/34 11/04/2014 15:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Antimony</b>	84.7		80.0	106	104		100	104	99.7		100	100
<b>Beryllium</b>	79.8		80.0	100	99.6		100	100	99.0		100	99
<b>Cadmium</b>	82.3		80.0	103	105		100	105	102		100	102
<b>Chromium</b>	77.8		80.0	97	99.6		100	100	98.8		100	99
<b>Copper</b>	81.6		80.0	102	99.2		100	99	100		100	100
<b>Lead</b>	80.0		80.0	100	105		100	105	108		100	108
<b>Nickel</b>	80.0		80.0	100	98.7		100	99	100		100	100
<b>Selenium</b>	84.5		80.0	106	106		100	106	103		100	103
<b>Silver</b>	79.6		80.0	100	103		100	103	101		100	101
<b>Thallium</b>	82.7		80.0	103	105		100	105	107		100	107
<b>Zinc</b>	83.9		80.0	105	109		100	109	107		100	107
<i>Arsenic</i>	81.9		80.0	102	101		100	101	100		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.



2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00024 Concentration Units: ug/L

CCV Source: MCCV1X\_00068

Analyte	CCV 180-123945/46 11/04/2014 16:43				CCV 180-123945/58 11/04/2014 17:28				CCV 180-123945/70 11/04/2014 18:13			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Antimony</b>	101		100	101	100		100	100	101		100	101
<b>Beryllium</b>	97.7		100	98	95.9		100	96	100		100	100
<b>Cadmium</b>	103		100	103	102		100	102	104		100	104
<b>Chromium</b>	98.0		100	98	96.9		100	97	98.1		100	98
<b>Copper</b>	99.0		100	99	98.5		100	99	99.8		100	100
<b>Lead</b>	108		100	108	108		100	108	110		100	110
<b>Nickel</b>	98.2		100	98	98.3		100	98	98.7		100	99
<b>Selenium</b>	103		100	103	103		100	103	105		100	105
<b>Silver</b>	101		100	101	100		100	100	101		100	101
<b>Thallium</b>	108		100	108	107		100	107	108		100	108
<b>Zinc</b>	107		100	107	107		100	107	107		100	107
<i>Arsenic</i>	101		100	101	99.2		100	99	100		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00024 Concentration Units: ug/L

CCV Source: MCCV1X\_00068

Analyte	ICV 180-124210/5 11/05/2014 15:21				CCV 180-124210/10 11/05/2014 16:05				CCV 180-124210/45 11/05/2014 19:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Arsenic</b>	80.5		80.0	101	95.4		100	95	92.9		100	93
<i>Antimony</i>	83.8		80.0	105	102		100	102	106		100	106
<i>Beryllium</i>	75.8		80.0	95	99.9		100	100	90.9		100	91
<i>Cadmium</i>	80.4		80.0	100	102		100	102	108		100	108
<i>Chromium</i>	83.6		80.0	105	103		100	103	104		100	104
<i>Copper</i>	82.0		80.0	103	100		100	100	103		100	103
<i>Lead</i>	80.1		80.0	100	103		100	103	108		100	108
<i>Nickel</i>	83.5		80.0	104	101		100	101	101		100	101
<i>Selenium</i>	78.5		80.0	98	95.0		100	95	92.4		100	92
<i>Silver</i>	79.9		80.0	100	99.6		100	100	106		100	106
<i>Thallium</i>	81.0		80.0	101	101		100	101	103		100	103
<i>Zinc</i>	82.3		80.0	103	98.5		100	98	101		100	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00024 Concentration Units: ug/L

CCV Source: MCCV1X\_00068

Analyte	CCV 180-124210/57 11/05/2014 20:37				CCV 180-124210/69 11/05/2014 21:42				CCV 180-124210/81 11/05/2014 22:52			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Arsenic</b>	94.2		100	94	95.4		100	95	98.2		100	98
<i>Antimony</i>	106		100	106								
<i>Beryllium</i>	97.0		100	97								
<i>Cadmium</i>	106		100	106								
<i>Chromium</i>	96.6		100	97								
<i>Copper</i>	101		100	101								
<i>Lead</i>	105		100	105								
<i>Nickel</i>	98.2		100	98								
<i>Selenium</i>	93.2		100	93								
<i>Silver</i>	105		100	105								
<i>Thallium</i>	101		100	101								
<i>Zinc</i>	99.7		100	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MHgWorkingicv\_00889 Concentration Units: ug/L

CCV Source: MHgworkingCal\_00909

Analyte	ICV 180-123192/7-A 10/29/2014 13:26				CCV 180-123192/10-A 10/29/2014 13:32				CCV 180-123192/10-A 10/29/2014 13:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Mercury</b>	2.51		2.50	100	5.24		5.00	105	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2A-IN  
CALIBRATION VERIFICATIONS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICV Source: MHgWorkingicv\_00889 Concentration Units: ug/L

CCV Source: MHgworkingCal\_00909

Analyte	CCV 180-123192/10-A 10/29/2014 14:17				CCV 180-123192/10-A 10/29/2014 14:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Mercury</b>	5.04		5.00	101	4.96		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.  
Italicized analytes were not requested for this sequence.

2B-IN  
CRQL CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Method: 6010B Instrument ID: C  
 Lab Sample ID: CRI 180-123073/89 Concentration Units: ug/L  
 CRQL Check Standard Source: MCRA/RLV\_00056

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium SEM	5.00	5.04		101	50-150
Copper SEM	25.0	25.9		104	50-150
Lead SEM	10.0	9.58	J	96	50-150
Nickel SEM	40.0	38.6	J	96	50-150
Zinc SEM	20.0	19.8	J	99	50-150

Lab Sample ID: CRI 180-123073/146 Concentration Units: ug/L  
 CRQL Check Standard Source: MCRA/RLV\_00056

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium SEM	5.00	5.05		101	50-150
Copper SEM	25.0	26.5		106	50-150
Lead SEM	10.0	10.3		103	50-150
Nickel SEM	40.0	39.2	J	98	50-150
Zinc SEM	20.0	20.0		100	50-150

Lab Sample ID: CRI 180-123209/77 Concentration Units: ug/L  
 CRQL Check Standard Source: MCRA/RLV\_00056

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.08		102	50-150
Copper	25.0	24.7	J	99	50-150
Lead SEM	10.0	9.73	J	97	50-150
Nickel SEM	40.0	38.4	J	96	50-150
Zinc	20.0	20.6		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2B-IN  
CRQL CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Method: 6020A Instrument ID: M  
Lab Sample ID: CRI 180-123945/72 Concentration Units: ug/L  
CRQL Check Standard Source: MCRIX\_00057

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	1.00	0.891	J	89	70-130
Chromium	2.00	1.53	J	76	70-130
Lead	1.00	1.09		109	70-130
Beryllium	1.00	1.02		102	70-130
Thallium	1.00	0.888	J	89	70-130
Antimony	2.00	1.75	J	88	70-130
Nickel	1.00	0.748	J	75	70-130
Zinc	5.00	6.48		130	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN  
CRQL CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Method: 6020A Instrument ID: X  
Lab Sample ID: CRI 180-124210/109 Concentration Units: ug/L  
CRQL Check Standard Source: MCRIX\_00057

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	1.00	0.854	J	85	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.



2B-IN  
CRQL CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Method: 7471A Instrument ID: K  
Lab Sample ID: CRA 180-123192/9-A Concentration Units: ug/L  
CRQL Check Standard Source: MHgworkingCal\_00909

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.202		101	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICBIS 180-123073/5 10/28/2014 05:51		CCB1 180-123073/10 10/28/2014 06:16		CCB15 180-123073/148 10/28/2014 18:11		CCB16 180-123073/160 10/28/2014 19:11	
		Found	C	Found	C	Found	C	Found	C
<b>Cadmium SEM</b>	5.0	ND		ND		ND		ND	
<b>Copper SEM</b>	25	ND		ND		ND		ND	
<b>Lead SEM</b>	10	ND		ND		ND		ND	
<b>Nickel SEM</b>	40	ND		ND		ND		ND	
<b>Zinc SEM</b>	20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB17 180-123073/172 10/28/2014 20:12							
		Found	C	Found	C	Found	C	Found	C
<b>Cadmium SEM</b>	5.0	ND							
<b>Copper SEM</b>	25	ND							
<b>Lead SEM</b>	10	ND							
<b>Nickel SEM</b>	40	ND							
<b>Zinc SEM</b>	20	ND							

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICBIS 180-123209/6 10/29/2014 05:22		CCB1 180-123209/11 10/29/2014 05:47		CCB8 180-123209/91 10/29/2014 12:38		CCB9 180-123209/101 10/29/2014 13:29	
		Found	C	Found	C	Found	C	Found	C
<b>Lead SEM</b>	10	ND		ND		ND		ND	
<b>Nickel SEM</b>	40	ND		ND		ND		ND	
<i>Cadmium</i>	5.0	ND		ND		ND		0.150	J
<i>Copper</i>	25	ND		ND		ND		ND	
<i>Zinc</i>	20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICB 180-123945/6 11/04/2014 13:56		CCB1 180-123945/11 11/04/2014 14:26		CCB3 180-123945/35 11/04/2014 15:59		CCB4 180-123945/47 11/04/2014 16:49	
		Found	C	Found	C	Found	C	Found	C
<b>Antimony</b>	2.0	ND		ND		0.0500	J	ND	
<b>Beryllium</b>	1.0	ND		ND		ND		ND	
<b>Cadmium</b>	1.0	ND		ND		ND		ND	
<b>Chromium</b>	2.0	ND		ND		ND		ND	
<b>Copper</b>	2.0	ND		ND		ND		ND	
<b>Lead</b>	1.0	ND		ND		0.0340	J	0.117	J
<b>Nickel</b>	1.0	ND		ND		ND		ND	
<b>Selenium</b>	5.0	ND		ND		ND		ND	
<b>Silver</b>	1.0	ND		ND		ND		ND	
<b>Thallium</b>	1.0	ND		ND		ND		ND	
<b>Zinc</b>	5.0	1.74	J	1.76	J	1.74	J	1.81	J
<i>Arsenic</i>	1.0	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB5 180-123945/59 11/04/2014 17:34		CCB6 180-123945/71 11/04/2014 18:19					
		Found	C	Found	C	Found	C	Found	C
<b>Antimony</b>	2.0	0.0250	J	ND					
<b>Beryllium</b>	1.0	ND		ND					
<b>Cadmium</b>	1.0	ND		ND					
<b>Chromium</b>	2.0	ND		ND					
<b>Copper</b>	2.0	ND		ND					
<b>Lead</b>	1.0	0.184	J	0.206	J				
<b>Nickel</b>	1.0	ND		ND					
<b>Selenium</b>	5.0	ND		ND					
<b>Silver</b>	1.0	ND		ND					
<b>Thallium</b>	1.0	ND		ND					
<b>Zinc</b>	5.0	1.78	J	1.83	J				
<i>Arsenic</i>	1.0	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICB 180-124210/6 11/05/2014 15:27		CCB1 180-124210/11 11/05/2014 16:15		CCB4 180-124210/46 11/05/2014 19:34		CCB5 180-124210/58 11/05/2014 20:47	
		Found	C	Found	C	Found	C	Found	C
<b>Arsenic</b>	1.0	ND		ND		ND		ND	
<i>Antimony</i>	2.0	ND		ND		ND		ND	
<i>Beryllium</i>	1.0	0.0670	J	ND		ND		ND	
<i>Cadmium</i>	1.0	ND		ND		ND		ND	
<i>Chromium</i>	2.0	ND		ND		ND		ND	
<i>Copper</i>	2.0	ND		ND		1.21	J	1.39	J
<i>Lead</i>	1.0	0.0280	J	0.0920	J	0.168	J	0.253	J
<i>Nickel</i>	1.0	ND		ND		ND		ND	
<i>Selenium</i>	5.0	ND		ND		ND		ND	
<i>Silver</i>	1.0	ND		ND		ND		ND	
<i>Thallium</i>	1.0	0.0150	J	0.0240	J	0.0810	J	0.0550	J
<i>Zinc</i>	5.0	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB6 180-124210/70 11/05/2014 21:52		CCB7 180-124210/82 11/05/2014 23:01					
		Found	C	Found	C	Found	C	Found	C
<b>Arsenic</b>	1.0	ND		ND					
<i>Antimony</i>	2.0								
<i>Beryllium</i>	1.0								
<i>Cadmium</i>	1.0								
<i>Chromium</i>	2.0								
<i>Copper</i>	2.0								
<i>Lead</i>	1.0								
<i>Nickel</i>	1.0								
<i>Selenium</i>	5.0								
<i>Silver</i>	1.0								
<i>Thallium</i>	1.0								
<i>Zinc</i>	5.0								

Italicized analytes were not requested for this sequence.



3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICB 180-123192/8-A 10/29/2014 13:29		CCB 180-123192/11-A 10/29/2014 13:34		CCB 180-123192/11-A 10/29/2014 13:57		CCB 180-123192/11-A 10/29/2014 14:19	
		Found	C	Found	C	Found	C	Found	C
<b>Mercury</b>	0.20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB 180-123192/11-A 10/29/2014 14:41							
		Found	C	Found	C	Found	C	Found	C
<b>Mercury</b>	0.20	ND							

Italicized analytes were not requested for this sequence.

3-IN  
METHOD BLANK  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: mg/Kg Lab Sample ID: MB 180-121962/1-A

Instrument Code: C Batch No.: 123073

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium SEM	ND			6010B
7440-50-8	Copper SEM	0.123	J		6010B
7439-92-1	Lead SEM	ND			6010B
7440-02-0	Nickel SEM	ND			6010B
7440-66-6	Zinc SEM	0.856	J		6010B

3-IN  
METHOD BLANK  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: umol/g Lab Sample ID: MB 180-121962/1-A

Instrument Code: C Batch No.: 123073

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium SEM	ND			6010B
7440-50-8	Copper SEM	0.00193	J		6010B
7439-92-1	Lead SEM	ND			6010B
7440-02-0	Nickel SEM	ND			6010B
7440-66-6	Zinc SEM	0.0131	J		6010B

3-IN  
METHOD BLANK  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: mg/Kg Lab Sample ID: MB 180-123380/1-A

Instrument Code: M Batch No.: 123945

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	ND			6020A
7440-47-3	Chromium	0.0184	J		6020A
7439-92-1	Lead	0.00440	J		6020A
7782-49-2	Selenium	ND			6020A
7440-22-4	Silver	ND			6020A
7440-41-7	Beryllium	ND			6020A
7440-28-0	Thallium	ND			6020A
7440-36-0	Antimony	ND			6020A
7440-02-0	Nickel	ND			6020A
7440-66-6	Zinc	0.247	J		6020A
7440-50-8	Copper	ND			6020A

3-IN  
METHOD BLANK  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Concentration Units: mg/Kg Lab Sample ID: MB 180-123380/1-A  
Instrument Code: X Batch No.: 124210

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	ND			6020A

3-IN  
METHOD BLANK  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Concentration Units: mg/Kg Lab Sample ID: MB 180-123183/1-A

Instrument Code: K Batch No.: 123289

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: ICSAB 180-123073/8 Instrument ID: C  
Lab File ID: C41028B.asc ICS Source: MICSAB\_00049  
Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Cadmium SEM</b>	<b>1000</b>	<b>1021</b>	<b>102</b>
<b>Copper SEM</b>	<b>500</b>	<b>488</b>	<b>98</b>
<b>Lead SEM</b>	<b>1000</b>	<b>962</b>	<b>96</b>
<b>Nickel SEM</b>	<b>1000</b>	<b>980</b>	<b>98</b>
<b>Zinc SEM</b>	<b>1000</b>	<b>894</b>	<b>89</b>
<i>Arsenic</i>	<i>1000</i>	<i>986</i>	<i>99</i>
<i>Chromium</i>	<i>500</i>	<i>478</i>	<i>96</i>
<i>Silver</i>	<i>1000</i>	<i>1107</i>	<i>111</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.



4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: ICSAB 180-123209/9 Instrument ID: C  
Lab File ID: C41029A2.asc ICS Source: MICSAB\_00049  
Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Lead SEM</b>	<b>1000</b>	<b>966</b>	<b>97</b>
<b>Nickel SEM</b>	<b>1000</b>	<b>985</b>	<b>98</b>
<i>Arsenic</i>	<i>1000</i>	<i>1001</i>	<i>100</i>
<i>Cadmium</i>	<i>1000</i>	<i>1041</i>	<i>104</i>
<i>Chromium</i>	<i>500</i>	<i>472</i>	<i>94</i>
<i>Copper</i>	<i>500</i>	<i>492</i>	<i>98</i>
<i>Silver</i>	<i>1000</i>	<i>1106</i>	<i>111</i>
<i>Zinc</i>	<i>1000</i>	<i>900</i>	<i>90</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICSA 180-123945/8 Instrument ID: M  
 Lab File ID: M41104A.xml ICS Source: MICSAX\_00058  
 Concentration Units: ug/L

Analyte	True Solution A	Found	
		Solution A	Percent Recovery
<b>Antimony</b>		<b>0.227</b>	
<b>Beryllium</b>		<b>0.0030</b>	
<b>Cadmium</b>		<b>0.384</b>	
<b>Chromium</b>		<b>0.226</b>	
<b>Copper</b>		<b>0.995</b>	
<b>Lead</b>		<b>0.305</b>	
<b>Nickel</b>		<b>-0.643</b>	
<b>Selenium</b>		<b>-0.547</b>	
<b>Silver</b>		<b>-0.183</b>	
<b>Thallium</b>		<b>0.0190</b>	
<b>Zinc</b>		<b>4.37</b>	
<i>Aluminum</i>	<i>100000</i>	<i>102900</i>	<i>103</i>
<i>Arsenic</i>		<i>-0.0950</i>	
<i>Barium</i>		<i>0.131</i>	
<i>Boron</i>		<i>5.23</i>	
<i>Calcium</i>	<i>100000</i>	<i>112100</i>	<i>112</i>
<i>Cobalt</i>		<i>0.0370</i>	
<i>Iron</i>	<i>100000</i>	<i>106000</i>	<i>106</i>
<i>Magnesium</i>	<i>100000</i>	<i>105100</i>	<i>105</i>
<i>Manganese</i>		<i>0.523</i>	
<i>Molybdenum</i>	<i>2000</i>	<i>2389</i>	<i>119</i>
<i>Potassium</i>	<i>100000</i>	<i>108500</i>	<i>109</i>
<i>Silicon</i>		<i>40.7</i>	
<i>Sodium</i>	<i>100000</i>	<i>108900</i>	<i>109</i>
<i>Strontium</i>		<i>0.772</i>	
<i>Tin</i>		<i>1.57</i>	
<i>Titanium</i>	<i>2000</i>	<i>2235</i>	<i>112</i>
<i>Vanadium</i>		<i>-0.427</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICSAB 180-123945/9 Instrument ID: M  
 Lab File ID: M41104A.xml ICS Source: MICSABX\_00062  
 Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Antimony</b>	<b>20.0</b>	<b>17.9</b>	<b>89</b>
<b>Beryllium</b>	<b>20.0</b>	<b>16.6</b>	<b>83</b>
<b>Cadmium</b>	<b>20.0</b>	<b>17.9</b>	<b>89</b>
<b>Chromium</b>	<b>20.0</b>	<b>19.3</b>	<b>97</b>
<b>Copper</b>	<b>20.0</b>	<b>18.6</b>	<b>93</b>
<b>Lead</b>	<b>20.0</b>	<b>21.0</b>	<b>105</b>
<b>Nickel</b>	<b>20.0</b>	<b>17.2</b>	<b>86</b>
<b>Selenium</b>	<b>50.0</b>	<b>41.8</b>	<b>84</b>
<b>Silver</b>	<b>20.0</b>	<b>16.8</b>	<b>84</b>
<b>Thallium</b>	<b>20.0</b>	<b>20.8</b>	<b>104</b>
<b>Zinc</b>	<b>25.0</b>	<b>22.8</b>	<b>91</b>
<i>Aluminum</i>	<i>100000</i>	<i>106500</i>	<i>107</i>
<i>Arsenic</i>	<i>20.0</i>	<i>17.6</i>	<i>88</i>
<i>Barium</i>	<i>20.0</i>	<i>18.4</i>	<i>92</i>
<i>Boron</i>	<i>50.0</i>	<i>45.0</i>	<i>90</i>
<i>Calcium</i>	<i>100000</i>	<i>113133</i>	<i>113</i>
<i>Cobalt</i>	<i>20.0</i>	<i>18.8</i>	<i>94</i>
<i>Iron</i>	<i>100000</i>	<i>107200</i>	<i>107</i>
<i>Magnesium</i>	<i>100000</i>	<i>108267</i>	<i>108</i>
<i>Manganese</i>	<i>22.5</i>	<i>20.1</i>	<i>89</i>
<i>Molybdenum</i>	<i>2000</i>	<i>2388</i>	<i>119</i>
<i>Potassium</i>	<i>100000</i>	<i>110367</i>	<i>110</i>
<i>Silicon</i>	<i>500</i>	<i>473</i>	<i>95</i>
<i>Sodium</i>	<i>100000</i>	<i>113600</i>	<i>114</i>
<i>Strontium</i>	<i>25.0</i>	<i>20.8</i>	<i>83</i>
<i>Tin</i>	<i>100</i>	<i>95.2</i>	<i>95</i>
<i>Titanium</i>	<i>2000</i>	<i>2268</i>	<i>113</i>
<i>Vanadium</i>	<i>20.0</i>	<i>17.6</i>	<i>88</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICSA 180-124210/8 Instrument ID: X  
 Lab File ID: X41105A.xml ICS Source: MICSAX\_00058  
 Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
<b>Arsenic</b>		<b>0.286</b>	
<i>Aluminum</i>	<i>100000</i>	<i>95480</i>	<i>95</i>
<i>Antimony</i>		<i>-0.158</i>	
<i>Beryllium</i>		<i>-0.0680</i>	
<i>Boron</i>		<i>-8.44</i>	
<i>Cadmium</i>		<i>1.24</i>	
<i>Calcium</i>	<i>100000</i>	<i>111900</i>	<i>112</i>
<i>Chromium</i>		<i>1.95</i>	
<i>Cobalt</i>		<i>0.165</i>	
<i>Copper</i>		<i>2.72</i>	
<i>Iron</i>	<i>100000</i>	<i>100900</i>	<i>101</i>
<i>Lead</i>		<i>0.749</i>	
<i>Magnesium</i>	<i>100000</i>	<i>97380</i>	<i>97</i>
<i>Manganese</i>		<i>1.81</i>	
<i>Molybdenum</i>	<i>2000</i>	<i>2261</i>	<i>113</i>
<i>Nickel</i>		<i>0.403</i>	
<i>Potassium</i>	<i>100000</i>	<i>108200</i>	<i>108</i>
<i>Selenium</i>		<i>0.135</i>	
<i>Silicon</i>		<i>39.4</i>	
<i>Silver</i>		<i>0.770</i>	
<i>Sodium</i>	<i>100000</i>	<i>104700</i>	<i>105</i>
<i>Strontium</i>		<i>0.997</i>	
<i>Thallium</i>		<i>0.0570</i>	
<i>Tin</i>		<i>0.102</i>	
<i>Titanium</i>	<i>2000</i>	<i>2389</i>	<i>119</i>
<i>Vanadium</i>		<i>1.44</i>	
<i>Zinc</i>		<i>5.74</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICSAB 180-124210/9 Instrument ID: X  
 Lab File ID: X41105A.xml ICS Source: MICSABX\_00062  
 Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Arsenic</b>	<b>20.0</b>	<b>19.8</b>	<b>99</b>
<i>Aluminum</i>	<i>100000</i>	<i>97767</i>	<i>98</i>
<i>Antimony</i>	<i>20.0</i>	<i>20.4</i>	<i>102</i>
<i>Beryllium</i>	<i>20.0</i>	<i>19.4</i>	<i>97</i>
<i>Boron</i>	<i>50.0</i>	<i>43.6</i>	<i>87</i>
<i>Cadmium</i>	<i>20.0</i>	<i>21.3</i>	<i>106</i>
<i>Calcium</i>	<i>100000</i>	<i>109933</i>	<i>110</i>
<i>Chromium</i>	<i>20.0</i>	<i>21.9</i>	<i>110</i>
<i>Cobalt</i>	<i>20.0</i>	<i>20.6</i>	<i>103</i>
<i>Copper</i>	<i>20.0</i>	<i>23.6</i>	<i>118</i>
<i>Iron</i>	<i>100000</i>	<i>106700</i>	<i>107</i>
<i>Lead</i>	<i>20.0</i>	<i>20.5</i>	<i>103</i>
<i>Magnesium</i>	<i>100000</i>	<i>99910</i>	<i>100</i>
<i>Manganese</i>	<i>22.5</i>	<i>20.9</i>	<i>93</i>
<i>Molybdenum</i>	<i>2000</i>	<i>2381</i>	<i>119</i>
<i>Nickel</i>	<i>20.0</i>	<i>20.8</i>	<i>104</i>
<i>Potassium</i>	<i>100000</i>	<i>109233</i>	<i>109</i>
<i>Selenium</i>	<i>50.0</i>	<i>49.6</i>	<i>99</i>
<i>Silicon</i>	<i>500</i>	<i>619</i>	<i>124</i>
<i>Silver</i>	<i>20.0</i>	<i>20.2</i>	<i>101</i>
<i>Sodium</i>	<i>100000</i>	<i>106867</i>	<i>107</i>
<i>Strontium</i>	<i>25.0</i>	<i>20.3</i>	<i>81</i>
<i>Thallium</i>	<i>20.0</i>	<i>19.3</i>	<i>96</i>
<i>Tin</i>	<i>100</i>	<i>101</i>	<i>101</i>
<i>Titanium</i>	<i>2000</i>	<i>2312</i>	<i>116</i>
<i>Vanadium</i>	<i>20.0</i>	<i>20.2</i>	<i>101</i>
<i>Zinc</i>	<i>25.0</i>	<i>26.5</i>	<i>106</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN  
MATRIX SPIKE SAMPLE RECOVERY  
METALS

Client ID: SD-B01 MS Lab ID: 180-37750-4 MS  
 Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Concentration Units: mg/Kg  
 % Solids: 70.7

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	4.85	1.7	2.80	114	75-125		6020A
Cadmium	3.88	0.78	3.50	88	75-125		6020A
Chromium	49.2	33	14.0	117	75-125		6020A
Lead	13.6	9.7	1.40	278	75-125	4	6020A
Selenium	0.694	0.12	0.701	82	75-125		6020A
Silver	3.20	0.026	3.50	90	75-125		6020A
Beryllium	2.68	0.053	3.50	75	75-125		6020A
Thallium	3.83	0.033	3.50	108	75-125		6020A
Antimony	28.5	0.12	35.0	81	75-125		6020A
Nickel	33.0	2.2	35.0	88	75-125		6020A
Zinc	135	99	35.0	104	75-125		6020A
Copper	21.0	5.5	17.5	88	75-125		6020A
Mercury	0.131	0.0096	0.112	108	75-125		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Note - Results and Reporting Limits have been adjusted for dry weight.

5A-IN  
MATRIX SPIKE SAMPLE RECOVERY  
METALS - SEM/AVS

Client ID: SD-B01 MS Lab ID: 180-37750-4 MS  
 Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Concentration Units: mg/Kg  
 % Solids: 70.7

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium SEM	2.13	0.81	1.78	74	75-125	F1	6010B
Copper SEM	11.1	4.8	8.90	72	75-125	F1	6010B
Lead SEM	21.1	7.8	17.8	75	75-125		6010B
Nickel SEM	18.1	1.7	17.8	92	75-125		6010B
Zinc SEM	73.2	100	17.8	-178	75-125	4	6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Note - Results and Reporting Limits have been adjusted for dry weight.

5A-IN  
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY  
METALS

Client ID: SD-B01 MSD Lab ID: 180-37750-4 MSD  
 Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Concentration Units: mg/Kg  
 % Solids: 70.7

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	4.52	2.74	105	75-125	7	20		6020A
Cadmium	3.85	3.42	90	75-125	1	20		6020A
Chromium	47.0	13.7	104	75-125	5	20		6020A
Lead	13.5	1.37	279	75-125	1	20	4	6020A
Selenium	0.561	0.684	65	75-125	21	20	F1 F2	6020A
Silver	3.11	3.42	90	75-125	3	20		6020A
Beryllium	2.58	3.42	74	75-125	3	20	F1	6020A
Thallium	3.67	3.42	106	75-125	4	20		6020A
Antimony	27.2	34.2	79	75-125	5	20		6020A
Nickel	30.9	34.2	84	75-125	6	20		6020A
Zinc	133	34.2	98	75-125	2	20		6020A
Copper	20.3	17.1	86	75-125	4	20		6020A
Mercury	0.128	0.111	106	75-125	2	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Note - Results and Reporting Limits have been adjusted for dry weight.



5A-IN  
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY  
METALS - SEM/AVS

Client ID: SD-B01 MSD Lab ID: 180-37750-4 MSD  
 Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Concentration Units: mg/Kg  
 % Solids: 70.7

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium SEM	2.41	1.78	90	75-125	12	20		6010B
Copper SEM	12.1	8.88	83	75-125	9	20		6010B
Lead SEM	23.5	17.8	89	75-125	11	20		6010B
Nickel SEM	18.1	17.8	92	75-125	0	20		6010B
Zinc SEM	107	17.8	12	75-125	37	20	4 F2	6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Note - Results and Reporting Limits have been adjusted for dry weight.

5B-IN  
POST DIGESTION SPIKE SAMPLE RECOVERY  
METALS

Client ID: SD-B01 PDS Lab ID: 180-37750-4 PDS  
 Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Sediment Concentration Units: mg/Kg

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	4.99	1.7	2.95	113	75-125		6020A
Cadmium	4.21	0.78	3.69	93	75-125		6020A
Chromium	45.1	33	14.7	84	75-125		6020A
Lead	11.1	9.7	1.47	99	75-125		6020A
Selenium	0.800	0.12	0.737	93	75-125		6020A
Silver	3.82	0.026	3.69	103	75-125		6020A
Beryllium	3.05	0.053	3.69	81	75-125		6020A
Thallium	4.26	0.033	3.69	115	75-125		6020A
Antimony	35.3	0.12	36.9	95	75-125		6020A
Nickel	36.5	2.2	36.9	93	75-125		6020A
Zinc	125	99	36.9	71	75-125	W	6020A
Copper	22.0	5.5	18.4	90	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Note - Results and Reporting Limits have been adjusted for dry weight.

7A-IN  
LAB CONTROL SAMPLE  
METALS - SEM/AVS

Lab ID: LCS 180-121962/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

Sample Matrix: Sediment

LCS Source: MTAPITMSBREV\_00011

Analyte	Sediment (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium SEM	1.25	1.28		102	80	120		6010B
Copper SEM	6.25	6.21		99	80	120		6010B
Lead SEM	12.5	11.9		95	80	120		6010B
Nickel SEM	12.5	11.9		95	80	120		6010B
Zinc SEM	12.5	13.6		109	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN  
LAB CONTROL SAMPLE  
METALS

Lab ID: LCS 180-123380/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

Sample Matrix: Sediment

LCS Source: MTAPITTICPMS\_00018

Analyte	Sediment (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	2.49	2.26		91	80	120		6020A
Chromium	9.95	10.2		102	80	120		6020A
Lead	0.995	1.15		115	80	120		6020A
Selenium	0.498	0.461		93	80	120		6020A
Silver	2.49	2.39		96	80	120		6020A
Beryllium	2.49	2.17		87	80	120		6020A
Thallium	2.49	2.85		114	80	120		6020A
Antimony	24.9	22.6		91	80	120		6020A
Nickel	24.9	25.0		101	80	120		6020A
Zinc	24.9	22.3		90	80	120		6020A
Copper	12.4	12.3		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN  
LAB CONTROL SAMPLE  
METALS

Lab ID: LCS 180-123380/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

Sample Matrix: Sediment

LCS Source: MTAPITTICPMS\_00018

Analyte	Sediment (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	1.99	1.79		90	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN  
LAB CONTROL SAMPLE  
METALS

Lab ID: LCS 180-123183/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

Sample Matrix: Sediment

LCS Source: MHgworkingCal\_00909

Analyte	Sediment (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.208	0.216		104	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN  
ICP-AES AND ICP-MS SERIAL DILUTIONS  
METALS - SEM/AVS

Lab ID: 180-37750-4

SDG No:

Lab Name: TestAmerica Pittsburgh

Job No: 180-37750-1

Matrix: Sediment

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Cadmium SEM	0.81		0.792	J	2.8		6010B
Copper SEM	4.8		5.07		6.3		6010B
Lead SEM	7.8		7.61		1.8		6010B
Nickel SEM	1.7		1.59	J	NC		6010B
Zinc SEM	100		103		1.2		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN  
ICP-AES AND ICP-MS SERIAL DILUTIONS  
METALS

Lab ID: 180-37750-4

SDG No:

Lab Name: TestAmerica Pittsburgh

Job No: 180-37750-1

Matrix: Sediment

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Arsenic	1.7		1.60		3.2		6020A
Cadmium	0.78		0.802		2.6		6020A
Chromium	33		31.8		2.9		6020A
Lead	9.7		8.83		8.7		6020A
Selenium	0.12	J	ND		NC		6020A
Silver	0.026	J	ND		NC		6020A
Beryllium	0.053	J	0.0542	J	NC		6020A
Thallium	0.033	J	0.0291	J	NC		6020A
Antimony	0.12	J	0.0973	J	21	V	6020A
Nickel	2.2		2.28		1.7		6020A
Zinc	99		111		12	V	6020A
Copper	5.5		5.52		0.15		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN



9-IN  
DETECTION LIMITS  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: C  
Method: 6010B MDL Date: 03/01/2011 13:33  
Prep Method: AVSSEM

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Cadmium SEM		0.125	0.0041
Copper SEM		0.625	0.0561
Lead SEM		0.25	0.0495
Nickel SEM		1	0.0287
Zinc SEM		2.5	0.1849

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: C  
Method: 6010B XMDL Date: 03/01/2011 13:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Cadmium SEM	111	5	0.13
Copper SEM	65	25	2.71
Lead SEM	208	10	1.26
Nickel SEM	60	40	1.56
Zinc SEM	66	20	2.46

9-IN  
DETECTION LIMITS  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: SEM MDL Date: 01/26/2010 14:34

Analyte	Wavelength/ Mass	RL (NONE)	MDL (NONE)
SEM/AVS Ratio		0.001	0.001

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: SEM XMDL Date: 01/26/2010 14:34

Analyte	Wavelength/ Mass	XRL (NONE)	XMDL (NONE)
SEM/AVS Ratio		0.001	0.001

9-IN  
DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: M  
Method: 6020A MDL Date: 01/26/2010 14:19  
Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	121	0.1	0.0013
Beryllium	9	0.05	0.00375
Cadmium	111	0.05	0.0035
Chromium	52	0.1	0.00305
Copper	65	0.1	0.0165
Lead	208	0.05	0.0019
Nickel	60	0.05	0.00565
Selenium	82	0.25	0.0251
Silver	107	0.05	0.00195
Thallium	205	0.05	0.001
Zinc	66	0.25	0.0324

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: M  
Method: 6020A XMDL Date: 01/26/2010 14:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121	2	0.0187
Beryllium	9	1	0.0367
Cadmium	111	1	0.1144
Chromium	52	2	0.5433
Copper	65	2	0.2443
Lead	208	1	0.0192
Nickel	60	1	0.1749
Selenium	82	5	0.4216
Silver	107	1	0.0362
Thallium	205	1	0.0152
Zinc	66	5	0.9609

9-IN  
DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: X  
Method: 6020A MDL Date: 01/26/2010 14:19  
Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Arsenic	75	0.05	0.00905

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: X  
Method: 6020A XMDL Date: 01/26/2010 14:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic	75	1	0.2908



9-IN  
DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: K  
Method: 7471A MDL Date: 01/23/2010 12:49  
Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury	253.7	0.0165	0.00545

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: K  
Method: 7471A XMDL Date: 01/23/2010 12:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.0384

10-IN  
ICP-AES INTERELEMENT CORRECTION FACTORS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-AES Instrument ID: C Date: 09/10/2014

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	La
Aluminum	308.215														
Antimony	217.581		-0.000084										-0.000012		
Arsenic	189.042		0.000026								0.000834				
Barium	455.403														
Beryllium	313.042														
Boron	182.641														
Cadmium	228.802			0.008941											
Calcium	317.933														
Chromium	267.716														
Cobalt	228.616														
Copper	324.396														
Iron	259.94														
Lead	220.353		-0.000093										0.000043		
Lithium	670.784														
Magnesium	279.079														
Manganese	257.61														
Molybdenum	202.03		0.019283												
Nickel	231.604												0.000063		
Potassium	766.490														
Selenium	196.090														
Silicon	251.611														
Silver	328.068														
Sodium	589.592														
Strontium	346.446														
Thallium	190.856									0.003544					
Tin	189.989														
Titanium	337.280														
Vanadium	290.882												0.000035		
Zinc	206.200										-0.000523				

X-IN

10-IN  
ICP-AES INTERELEMENT CORRECTION FACTORS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-AES Instrument ID: C Date: 09/10/2014

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	308.215			0.019283											
Antimony	217.581							-0.001052							
Arsenic	189.042			0.001295											
Barium	455.403														
Beryllium	313.042														
Boron	182.641														
Cadmium	228.802														
Calcium	317.933														
Chromium	267.716														
Cobalt	228.616													0.001824	
Copper	324.396														
Iron	259.94														
Lead	220.353														
Lithium	670.784														
Magnesium	279.079														
Manganese	257.61														
Molybdenum	202.03														
Nickel	231.604														
Potassium	766.490														
Selenium	196.090		0.000388												
Silicon	251.611														
Silver	328.068		0.000154												
Sodium	589.592														
Strontium	346.446														
Thallium	190.856		0.000799												
Tin	189.989														
Titanium	337.280														
Vanadium	290.882														
Zinc	206.200														

X-IN

10-IN  
ICP-AES INTERELEMENT CORRECTION FACTORS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-AES Instrument ID: C Date: 09/10/2014

Analyte	Wave Length	V	Zn												
Aluminum	308.215	0.022928													
Antimony	217.581	0.002432													
Arsenic	189.042														
Barium	455.403														
Beryllium	313.042														
Boron	182.641														
Cadmium	228.802														
Calcium	317.933														
Chromium	267.716														
Cobalt	228.616														
Copper	324.396														
Iron	259.94														
Lead	220.353														
Lithium	670.784														
Magnesium	279.079														
Manganese	257.61														
Molybdenum	202.03														
Nickel	231.604														
Potassium	766.490														
Selenium	196.090														
Silicon	251.611														
Silver	328.068														
Sodium	589.592														
Strontium	346.446														
Thallium	190.856														
Tin	189.989														
Titanium	337.280														
Vanadium	290.882														
Zinc	206.200														

X-IN

11-IN  
LINEAR RANGES  
METALS

Lab Name: TestAmerica Pittsburgh

Job No: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: M

Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Cadmium		13500	6020A
Chromium		13500	6020A
Lead		20000	6020A
Selenium		4500	6020A
Silver		2500	6020A
Beryllium		9000	6020A
Thallium		13500	6020A
Antimony		13500	6020A
Nickel		13500	6020A
Zinc		25000	6020A
Copper		20000	6020A

11-IN  
LINEAR RANGES  
METALS

Lab Name: TestAmerica Pittsburgh

Job No: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: X

Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		4500	6020A

12-IN  
PREPARATION LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: AVSSEM

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-121962/1-A	10/19/2014 14:29	121962	10.00		250
LCS 180-121962/2-A	10/19/2014 14:29	121962	10.00		250
180-37750-4	10/19/2014 14:29	121962	10.01		250
180-37750-4 MS	10/19/2014 14:29	121962	9.94		250
180-37750-4 MSD	10/19/2014 14:29	121962	9.96		250
180-37750-1	10/19/2014 14:29	121962	10.04		250
180-37750-2	10/19/2014 14:29	121962	9.95		250
180-37750-3	10/19/2014 14:29	121962	10.01		250
180-37750-5	10/19/2014 14:29	121962	10.00		250
180-37750-6	10/19/2014 14:29	121962	10.00		250
180-37750-7	10/19/2014 14:29	121962	9.98		250
180-37750-8	10/19/2014 14:29	121962	10.02		250
180-37750-9	10/19/2014 14:29	121962	10.05		250



12-IN  
PREPARATION LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-123380/1-A	10/30/2014 14:25	123380	00002.00		100
LCS 180-123380/2-A	10/30/2014 14:25	123380	00002.01		100
180-37750-1	10/30/2014 14:25	123380	00002.01		100
180-37750-2	10/30/2014 14:25	123380	00002.07		100
180-37750-3	10/30/2014 14:25	123380	00001.96		100
180-37750-4	10/30/2014 14:25	123380	00001.92		100
180-37750-4 MS	10/30/2014 14:25	123380	00002.02		100
180-37750-4 MSD	10/30/2014 14:25	123380	00002.07		100
180-37750-5	10/30/2014 14:25	123380	00002.13		100
180-37750-6	10/30/2014 14:25	123380	00002.20		100
180-37750-7	10/30/2014 14:25	123380	00002.27		100
180-37750-8	10/30/2014 14:25	123380	00002.07		100
180-37750-9	10/30/2014 14:25	123380	00002.01		100

12-IN  
PREPARATION LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-123183/1-A	10/29/2014 10:52	123183	00001.20		100
LCS 180-123183/2-A	10/29/2014 10:52	123183	00001.20		100
180-37750-1	10/29/2014 10:52	123183	00001.20		100
180-37750-2	10/29/2014 10:52	123183	00001.20		100
180-37750-3	10/29/2014 10:52	123183	00001.24		100
180-37750-4	10/29/2014 10:52	123183	00001.25		100
180-37750-4 MS	10/29/2014 10:52	123183	00001.26		100
180-37750-4 MSD	10/29/2014 10:52	123183	00001.27		100
180-37750-5	10/29/2014 10:52	123183	00001.22		100
180-37750-6	10/29/2014 10:52	123183	00001.21		100
180-37750-7	10/29/2014 10:52	123183	00001.28		100
180-37750-8	10/29/2014 10:52	123183	00001.23		100
180-37750-9	10/29/2014 10:52	123183	00001.24		100

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/28/2014 05:31 End Date: 10/28/2014 22:15

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C d	C u	N i	P b	Z n													
STD1 180-123073/1 IC			05:31	X	X	X	X	X													
STD2A 180-123073/2 IC			05:36	X	X	X	X	X													
STD3 180-123073/3 IC			05:41	X	X	X	X	X													
ICV 180-123073/4	1		05:46	X	X	X	X	X													
ICBIS 180-123073/5	1		05:51	X	X	X	X	X													
CRI 180-123073/6			05:56																		
ICSA 180-123073/7	1		06:01	X	X	X	X	X													
ICSAB 180-123073/8	1		06:07	X	X	X	X	X													
CCV 180-123073/9	1		06:11	X	X	X	X	X													
CCB1 180-123073/10	1		06:16	X	X	X	X	X													
ZZZZZZ			06:21																		
ZZZZZZ			06:27																		
ZZZZZZ			06:32																		
ZZZZZZ			06:37																		
ZZZZZZ			06:42																		
ZZZZZZ			06:46																		
ZZZZZZ			06:52																		
ZZZZZZ			06:57																		
ZZZZZZ			07:02																		
ZZZZZZ			07:07																		
CCV 180-123073/21			07:12																		
CCB2 180-123073/22			07:17																		
ZZZZZZ			07:22																		
ZZZZZZ			07:28																		
ZZZZZZ			07:33																		
ZZZZZZ			07:38																		
ZZZZZZ			07:43																		
ZZZZZZ			07:48																		
ZZZZZZ			07:53																		
ZZZZZZ			07:58																		
ZZZZZZ			08:03																		
ZZZZZZ			08:08																		
CCV 180-123073/33			08:13																		
CCB3 180-123073/34			08:18																		
ZZZZZZ			08:23																		
ZZZZZZ			08:28																		
ZZZZZZ			08:33																		
ZZZZZZ			08:39																		
ZZZZZZ			08:43																		
ZZZZZZ			08:48																		
ZZZZZZ			08:53																		
ZZZZZZ			08:58																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/28/2014 05:31 End Date: 10/28/2014 22:15

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C d	C u	N i	P b	Z n													
ZZZZZZ			09:03																		
CRI 180-123073/44			09:09																		
CCV 180-123073/45			09:14																		
CCB4 180-123073/46			09:19																		
ZZZZZZ			09:24																		
ZZZZZZ			09:29																		
ZZZZZZ			09:34																		
ZZZZZZ			09:39																		
ZZZZZZ			09:44																		
ZZZZZZ			09:49																		
ZZZZZZ			09:54																		
ZZZZZZ			10:00																		
CCV 180-123073/55			10:05																		
CCB5 180-123073/56			10:10																		
ZZZZZZ			10:16																		
ZZZZZZ			10:22																		
ZZZZZZ			10:26																		
ZZZZZZ			10:31																		
ZZZZZZ			10:36																		
ZZZZZZ			10:41																		
ZZZZZZ			10:46																		
ZZZZZZ			10:51																		
ZZZZZZ			10:56																		
ZZZZZZ			11:01																		
CCV 180-123073/67			11:06																		
CCB6 180-123073/68			11:11																		
ZZZZZZ			11:16																		
ZZZZZZ			11:21																		
ZZZZZZ			11:26																		
ZZZZZZ			11:32																		
ZZZZZZ			11:37																		
ZZZZZZ			11:42																		
ZZZZZZ			11:47																		
ZZZZZZ			11:52																		
ZZZZZZ			11:57																		
ZZZZZZ			12:02																		
CCV 180-123073/79			12:07																		
CCB7 180-123073/80			12:12																		
ZZZZZZ			12:17																		
ZZZZZZ			12:22																		
ZZZZZZ			12:27																		
ZZZZZZ			12:32																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/28/2014 05:31 End Date: 10/28/2014 22:15

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C d	C u	N i	P b	Z n											
ZZZZZZ			12:38																
ZZZZZZ			12:43																
CCV 180-123073/87			12:48																
CCB8 180-123073/88			12:53																
CRI 180-123073/89	1		12:58	X	X	X	X	X											
CCV 180-123073/90			13:03																
CCB9 180-123073/91			13:08																
ZZZZZZ			13:17																
ZZZZZZ			13:23																
ZZZZZZ			13:27																
ZZZZZZ			13:33																
ZZZZZZ			13:38																
ZZZZZZ			13:43																
ZZZZZZ			13:48																
ZZZZZZ			13:54																
ZZZZZZ			13:59																
ZZZZZZ			14:05																
CCV 180-123073/102			14:10																
CCB10 180-123073/103			14:15																
ZZZZZZ			14:20																
ZZZZZZ			14:25																
ZZZZZZ			14:31																
ZZZZZZ			14:36																
ZZZZZZ			14:42																
ZZZZZZ			14:47																
ZZZZZZ			14:53																
ZZZZZZ			14:58																
ZZZZZZ			15:04																
ZZZZZZ			15:09																
CCV 180-123073/114			15:14																
CCB11 180-123073/115			15:19																
ZZZZZZ			15:24																
ZZZZZZ			15:29																
ZZZZZZ			15:34																
ZZZZZZ			15:40																
ZZZZZZ			15:44																
ZZZZZZ			15:50																
ZZZZZZ			15:55																
ZZZZZZ			16:00																
ZZZZZZ			16:06																
ZZZZZZ			16:11																
CCV 180-123073/126			16:16																

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/28/2014 05:31 End Date: 10/28/2014 22:15

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C d	C u	N i	P b	Z n													
CCB12 180-123073/127			16:21																		
ZZZZZZ			16:26																		
ZZZZZZ			16:32																		
ZZZZZZ			16:37																		
ZZZZZZ			16:42																		
ZZZZZZ			16:48																		
ZZZZZZ			16:53																		
ZZZZZZ			16:59																		
ZZZZZZ			17:04																		
ZZZZZZ			17:10																		
ZZZZZZ			17:15																		
CCV 180-123073/138			17:20																		
CCB13 180-123073/139			17:25																		
ZZZZZZ			17:30																		
ZZZZZZ			17:36																		
ZZZZZZ			17:41																		
ZZZZZZ			17:46																		
CCV 180-123073/144			17:51																		
CCB14 180-123073/145			17:56																		
CRI 180-123073/146	1		18:01	X	X	X	X	X													
CCV 180-123073/147	1		18:07	X	X	X	X	X													
CCB15 180-123073/148	1		18:11	X	X	X	X	X													
MB 180-121962/1-A	1	V	18:16	X	X	X	X	X													
LCS 180-121962/2-A	1	V	18:22	X	X	X	X	X													
180-37750-1	1	V	18:27	X	X	X	X	X													
180-37750-2	1	V	18:32	X	X	X	X	X													
180-37750-3	1	V	18:37	X	X	X	X	X													
180-37750-4	1	V	18:42	X	X	X	X	X													
180-37750-4 SD	5	V	18:47	X	X	X	X	X													
180-37750-4 MS	1	V	18:52	X	X	X	X	X													
180-37750-4 MSD	1	V	18:57	X	X	X	X	X													
180-37750-5	1	V	19:02	X	X			X													
CCV 180-123073/159	1		19:07	X	X	X	X	X													
CCB16 180-123073/160	1		19:11	X	X	X	X	X													
180-37750-6	1	V	19:17	X	X			X													
180-37750-7	1	V	19:22	X	X	X	X	X													
180-37750-8	1	V	19:27	X	X	X	X	X													
180-37750-9	1	V	19:32	X	X			X													
ZZZZZZ			19:37																		
ZZZZZZ			19:42																		
ZZZZZZ			19:47																		
ZZZZZZ			19:52																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/28/2014 05:31 End Date: 10/28/2014 22:15

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C d	C u	N i	P b	Z n													
ZZZZZZ			19:57																		
ZZZZZZ			20:02																		
CCV 180-123073/171	1		20:07	X	X	X	X	X													
CCB17 180-123073/172	1		20:12	X	X	X	X	X													
ZZZZZZ			20:17																		
ZZZZZZ			20:23																		
ZZZZZZ			20:28																		
ZZZZZZ			20:33																		
ZZZZZZ			20:38																		
ZZZZZZ			20:44																		
ZZZZZZ			20:49																		
ZZZZZZ			20:54																		
ZZZZZZ			20:59																		
ZZZZZZ			21:05																		
CCV 180-123073/183			21:10																		
CCB18 180-123073/184			21:14																		
ZZZZZZ			21:20																		
ZZZZZZ			21:25																		
ZZZZZZ			21:30																		
ZZZZZZ			21:35																		
ZZZZZZ			21:40																		
ZZZZZZ			21:45																		
ZZZZZZ			21:50																		
ZZZZZZ			21:55																		
ZZZZZZ			22:00																		
ZZZZZZ			22:05																		
CCV 180-123073/195			22:11																		
CCB19 180-123073/196			22:15																		

Prep Types

V = SEM/AVS

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/29/2014 04:56 End Date: 10/29/2014 13:29

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				N i	P b																
STD1 180-123209/1 IC			04:56	X	X																
STD2A 180-123209/2 IC			05:02	X	X																
STD3 180-123209/3 IC			05:07	X	X																
ICV 180-123209/4	1		05:12	X	X																
ICV 180-123209/5	1		05:17	X	X																
ICBIS 180-123209/6	1		05:22	X	X																
CRI 180-123209/7			05:27																		
ICSA 180-123209/8	1		05:32	X	X																
ICSAB 180-123209/9	1		05:37	X	X																
CCV 180-123209/10	1		05:42	X	X																
CCB1 180-123209/11	1		05:47	X	X																
ZZZZZZ			05:52																		
ZZZZZZ			05:57																		
ZZZZZZ			06:02																		
ZZZZZZ			06:08																		
ZZZZZZ			06:13																		
ZZZZZZ			06:18																		
ZZZZZZ			06:24																		
ZZZZZZ			06:29																		
ZZZZZZ			06:34																		
ZZZZZZ			06:39																		
CCV 180-123209/22			06:44																		
CCB2 180-123209/23			06:49																		
ZZZZZZ			06:54																		
ZZZZZZ			06:59																		
ZZZZZZ			07:04																		
ZZZZZZ			07:09																		
ZZZZZZ			07:14																		
ZZZZZZ			07:19																		
ZZZZZZ			07:24																		
ZZZZZZ			07:29																		
ZZZZZZ			07:34																		
ZZZZZZ			07:40																		
CCV 180-123209/34			07:45																		
CCB3 180-123209/35			07:49																		
ZZZZZZ			07:55																		
ZZZZZZ			08:00																		
ZZZZZZ			08:05																		
ZZZZZZ			08:10																		
ZZZZZZ			08:15																		
ZZZZZZ			08:20																		
CRI 180-123209/42			08:25																		



13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/29/2014 04:56 End Date: 10/29/2014 13:29

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				N i	P b																
CCV 180-123209/43			08:30																		
CCB4 180-123209/44			08:35																		
ZZZZZZ			08:40																		
ZZZZZZ			08:46																		
ZZZZZZ			08:51																		
ZZZZZZ			08:57																		
ZZZZZZ			09:02																		
ZZZZZZ			09:08																		
ZZZZZZ			09:13																		
ZZZZZZ			09:18																		
ZZZZZZ			09:24																		
ZZZZZZ			09:29																		
CCV 180-123209/55			09:34																		
CCB5 180-123209/56			09:39																		
ZZZZZZ			09:44																		
ZZZZZZ			09:50																		
ZZZZZZ			09:55																		
ZZZZZZ			10:00																		
ZZZZZZ			10:05																		
ZZZZZZ			10:10																		
ZZZZZZ			10:15																		
ZZZZZZ			10:20																		
ZZZZZZ			10:25																		
ZZZZZZ			10:30																		
CCV 180-123209/67			10:36																		
CCB6 180-123209/68			10:40																		
ZZZZZZ			10:46																		
ZZZZZZ			10:51																		
ZZZZZZ			10:56																		
ZZZZZZ			11:01																		
ZZZZZZ			11:06																		
ZZZZZZ			11:11																		
ZZZZZZ			11:16																		
ZZZZZZ			11:21																		
CRI 180-123209/77	1		11:26	X	X																
CCV 180-123209/78			11:31																		
CCB7 180-123209/79			11:36																		
ZZZZZZ			11:42																		
ZZZZZZ			11:47																		
ZZZZZZ			11:53																		
ZZZZZZ			11:57																		
ZZZZZZ			12:03																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: C Method: 6010B

Start Date: 10/29/2014 04:56 End Date: 10/29/2014 13:29

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				N i	P b																
ZZZZZZ			12:08																		
ZZZZZZ			12:13																		
ZZZZZZ			12:18																		
ZZZZZZ			12:23																		
ZZZZZZ			12:28																		
CCV 180-123209/90	1		12:33	X	X																
CCB8 180-123209/91	1		12:38	X	X																
ZZZZZZ			12:43																		
ZZZZZZ			12:48																		
ZZZZZZ			12:53																		
ZZZZZZ			12:59																		
ZZZZZZ			13:04																		
180-37750-5	2	V	13:09	X	X																
180-37750-6	2	V	13:14	X	X																
180-37750-9	2	V	13:19	X	X																
CCV 180-123209/100	1		13:24	X	X																
CCB9 180-123209/101	1		13:29	X	X																

Prep Types

V = SEM/AVS

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: NOEQUIP Method: SEM

Start Date: 10/30/2014 11:12 End Date: 10/30/2014 11:15

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				A V S S R																	
180-37750-1	1	V	11:12	X																	
180-37750-2	1	V	11:12	X																	
180-37750-3	1	V	11:12	X																	
180-37750-4	1	V	11:12	X																	
180-37750-6	1	V	11:12	X																	
180-37750-5	1	V	11:12	X																	
180-37750-7	1	V	11:12	X																	
180-37750-8	1	V	11:12	X																	
180-37750-9	1	V	11:14	X																	
ZZZZZZ			11:15																		

Prep Types

V = SEM/AVS

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: M Method: 6020A

Start Date: 11/04/2014 07:52 End Date: 11/04/2014 20:30

Lab Sample ID	D / F	T y p e	Time	Analytes															
				A g	B e	C d	C r	C u	N i	P b	S b	S e	T l	Z n					
ITUNE 180-123945/1			07:52																
STD1 180-123945/2 IC			13:40	X	X	X	X	X	X	X	X	X	X	X					
STD2 180-123945/3 IC			13:44	X	X	X	X	X	X	X	X	X	X	X					
STD3 180-123945/4 IC	1		13:47	X	X	X	X	X	X	X	X	X	X	X					
ICV 180-123945/5	1		13:50	X	X	X	X	X	X	X	X	X	X	X					
ICB 180-123945/6	1		13:56	X	X	X	X	X	X	X	X	X	X	X					
CRI 180-123945/7			14:07																
ICSA 180-123945/8	1		14:11	X	X	X	X	X	X	X	X	X	X	X					
ICSAB 180-123945/9	1		14:14	X	X	X	X	X	X	X	X	X	X	X					
CCV 180-123945/10	1		14:21	X	X	X	X	X	X	X	X	X	X	X					
CCB1 180-123945/11	1		14:26	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			14:30																
ZZZZZZ			14:33																
ZZZZZZ			14:37																
ZZZZZZ			14:41																
ZZZZZZ			14:44																
ZZZZZZ			14:48																
ZZZZZZ			14:51																
ZZZZZZ			14:55																
ZZZZZZ			14:58																
ZZZZZZ			15:02																
CCV 180-123945/22			15:06																
CCB2 180-123945/23			15:11																
ZZZZZZ			15:15																
ZZZZZZ			15:19																
ZZZZZZ			15:22																
ZZZZZZ			15:26																
CRI 180-123945/28			15:32																
ZZZZZZ			15:35																
ZZZZZZ			15:39																
ZZZZZZ			15:42																
ZZZZZZ			15:46																
ZZZZZZ			15:49																
CCV 180-123945/34	1		15:53	X	X	X	X	X	X	X	X	X	X	X					
CCB3 180-123945/35	1		15:59	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			16:03																
ZZZZZZ			16:09																
ZZZZZZ			16:12																
ZZZZZZ			16:16																
ZZZZZZ			16:19																
MB 180-123380/1-A	1	T	16:26	X	X	X	X	X	X	X	X	X	X	X					
LCS 180-123380/2-A	1	T	16:29	X	X	X	X	X	X	X	X	X	X	X					

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: M Method: 6020A

Start Date: 11/04/2014 07:52 End Date: 11/04/2014 20:30

Lab Sample ID	D / F	T y p e	Time	Analytes																
				A g	B e	C d	C r	C u	N i	P b	S b	S e	T l	Z n						
ZZZZZZ			16:33																	
ZZZZZZ			16:36																	
ZZZZZZ			16:40																	
CCV 180-123945/46	1		16:43	X	X	X	X	X	X	X	X	X	X	X						
CCB4 180-123945/47	1		16:49	X	X	X	X	X	X	X	X	X	X	X						
ZZZZZZ			16:53																	
ZZZZZZ			16:56																	
ZZZZZZ			17:00																	
ZZZZZZ			17:03																	
ZZZZZZ			17:07																	
180-37750-1	1	T	17:10	X	X	X	X	X	X	X	X	X	X	X						
180-37750-2	1	T	17:14	X	X	X	X	X	X	X	X	X	X	X						
180-37750-3	1	T	17:18	X	X	X	X	X	X	X	X	X	X	X						
180-37750-4	1	T	17:21	X	X	X	X	X	X	X	X	X	X	X						
180-37750-4 SD	5	T	17:25	X	X	X	X	X	X	X	X	X	X	X						
CCV 180-123945/58	1		17:28	X	X	X	X	X	X	X	X	X	X	X						
CCB5 180-123945/59	1		17:34	X	X	X	X	X	X	X	X	X	X	X						
180-37750-4 MS	1	T	17:38	X	X	X	X	X	X	X	X	X	X	X						
180-37750-4 MSD	1	T	17:41	X	X	X	X	X	X	X	X	X	X	X						
180-37750-4 PDS	1	T	17:45	X	X	X	X	X	X	X	X	X	X	X						
180-37750-5	1	T	17:48	X	X	X	X	X	X	X	X	X	X	X						
180-37750-6	1	T	17:52	X	X	X	X	X	X	X	X	X	X	X						
180-37750-7	1	T	17:55	X	X	X	X	X	X	X	X	X	X	X						
180-37750-8	1	T	17:59	X	X	X	X	X	X	X	X	X	X	X						
180-37750-9	1	T	18:02	X	X	X	X	X	X	X	X	X	X	X						
ZZZZZZ			18:06																	
ZZZZZZ			18:09																	
CCV 180-123945/70	1		18:13	X	X	X	X	X	X	X	X	X	X	X						
CCB6 180-123945/71	1		18:19	X	X	X	X	X	X	X	X	X	X	X						
CRI 180-123945/72	1		18:23		X	X	X		X	X	X			X	X					
ZZZZZZ			18:26																	
ZZZZZZ			18:30																	
ZZZZZZ			18:33																	
ZZZZZZ			18:37																	
ZZZZZZ			18:40																	
ZZZZZZ			18:44																	
ZZZZZZ			18:47																	
ZZZZZZ			18:51																	
ZZZZZZ			18:54																	
CCV 180-123945/82			18:58																	
CCB7 180-123945/83			19:04																	
ZZZZZZ			19:07																	

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: M Method: 6020A

Start Date: 11/04/2014 07:52 End Date: 11/04/2014 20:30

Lab Sample ID	D / F	T y p e	Time	Analytes																
				A g	B e	C d	C r	C u	N i	P b	S b	S e	T l	Z n						
ZZZZZZ			19:11																	
ZZZZZZ			19:14																	
ZZZZZZ			19:18																	
ZZZZZZ			19:22																	
ZZZZZZ			19:25																	
ZZZZZZ			19:29																	
ZZZZZZ			19:32																	
ZZZZZZ			19:36																	
ZZZZZZ			19:39																	
CCV 180-123945/94			19:43																	
CCB8 180-123945/95			19:49																	
ZZZZZZ			19:52																	
ZZZZZZ			19:56																	
ZZZZZZ			19:59																	
ZZZZZZ			20:03																	
ZZZZZZ			20:06																	
ZZZZZZ			20:13																	
CRI 180-123945/102			20:20																	
CCV 180-123945/103			20:24																	
CCB9 180-123945/104			20:30																	

Prep Types

T = Total/NA

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: X Method: 6020A

Start Date: 11/05/2014 14:17 End Date: 11/06/2014 01:50

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				A S																	
ITUNE 180-124210/1			14:17																		
STD1 180-124210/2 IC	1		15:06	X																	
STD2 180-124210/3 IC	1		15:11	X																	
STD3 180-124210/4 IC	1		15:16	X																	
ICV 180-124210/5	1		15:21	X																	
ICB 180-124210/6	1		15:27	X																	
CRI 180-124210/7			15:47																		
ICSA 180-124210/8	1		15:54	X																	
ICSAB 180-124210/9	1		15:59	X																	
CCV 180-124210/10	1		16:05	X																	
CCB1 180-124210/11	1		16:15	X																	
ZZZZZZ			16:20																		
ZZZZZZ			16:25																		
ZZZZZZ			16:30																		
ZZZZZZ			16:35																		
ZZZZZZ			16:40																		
ZZZZZZ			16:45																		
ZZZZZZ			16:50																		
ZZZZZZ			16:55																		
ZZZZZZ			17:00																		
ZZZZZZ			17:06																		
CCV 180-124210/22			17:11																		
CCB2 180-124210/23			17:20																		
ZZZZZZ			17:25																		
ZZZZZZ			17:30																		
ZZZZZZ			17:35																		
ZZZZZZ			17:40																		
ZZZZZZ			17:45																		
ZZZZZZ			17:50																		
ZZZZZZ			17:55																		
ZZZZZZ			18:00																		
ZZZZZZ			18:05																		
ZZZZZZ			18:10																		
CCV 180-124210/34			18:15																		
CCB3 180-124210/35			18:24																		
ZZZZZZ			18:30																		
ZZZZZZ			18:35																		
ZZZZZZ			18:40																		
ZZZZZZ			18:45																		
ZZZZZZ			18:50																		
ZZZZZZ			18:55																		
ZZZZZZ			19:04																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: X Method: 6020A

Start Date: 11/05/2014 14:17 End Date: 11/06/2014 01:50

Lab Sample ID	D / F	T y p e	Time	Analytes															
				A S															
CRI 180-124210/43			19:09																
ZZZZZZ			19:19																
CCV 180-124210/45	1		19:24	X															
CCB4 180-124210/46	1		19:34	X															
ZZZZZZ			19:39																
ZZZZZZ			19:44																
ZZZZZZ			19:49																
ZZZZZZ			19:54																
ZZZZZZ			19:59																
ZZZZZZ			20:04																
MB 180-123380/1-A	1	T	20:13	X															
LCS 180-123380/2-A	1	T	20:18	X															
ZZZZZZ			20:23																
ZZZZZZ			20:28																
CCV 180-124210/57	1		20:37	X															
CCB5 180-124210/58	1		20:47	X															
ZZZZZZ			20:52																
ZZZZZZ			20:57																
ZZZZZZ			21:02																
ZZZZZZ			21:07																
ZZZZZZ			21:12																
ZZZZZZ			21:17																
180-37750-1	1	T	21:22	X															
180-37750-2	1	T	21:27	X															
180-37750-3	1	T	21:32	X															
180-37750-5	1	T	21:37	X															
CCV 180-124210/69	1		21:42	X															
CCB6 180-124210/70	1		21:52	X															
180-37750-6	1	T	21:57	X															
180-37750-7	1	T	22:02	X															
180-37750-4	1	T	22:07	X															
180-37750-4 SD	5	T	22:12	X															
180-37750-4 MS	1	T	22:17	X															
180-37750-4 MSD	1	T	22:22	X															
180-37750-4 PDS	1	T	22:27	X															
180-37750-8	1	T	22:32	X															
180-37750-9	1	T	22:37	X															
ZZZZZZ			22:47																
CCV 180-124210/81	1		22:52	X															
CCB7 180-124210/82	1		23:01	X															
ZZZZZZ			23:06																
ZZZZZZ			23:11																



13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: X Method: 6020A

Start Date: 11/05/2014 14:17 End Date: 11/06/2014 01:50

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				A	S																
ZZZZZZ			23:16																		
ZZZZZZ			23:21																		
ZZZZZZ			23:26																		
ZZZZZZ			23:31																		
ZZZZZZ			23:40																		
ZZZZZZ			23:45																		
ZZZZZZ			23:51																		
ZZZZZZ			23:56																		
CCV 180-124210/93			00:01																		
CCB8 180-124210/94			00:10																		
ZZZZZZ			00:15																		
ZZZZZZ			00:20																		
ZZZZZZ			00:25																		
ZZZZZZ			00:31																		
ZZZZZZ			00:36																		
ZZZZZZ			00:41																		
ZZZZZZ			00:46																		
ZZZZZZ			00:51																		
ZZZZZZ			00:56																		
ZZZZZZ			01:01																		
CCV 180-124210/105			01:06																		
CCB9 180-124210/106			01:15																		
ZZZZZZ			01:21																		
ZZZZZZ			01:26																		
CRI 180-124210/109	1		01:36	X																	
CCV 180-124210/110			01:41																		
CCB10 180-124210/111			01:50																		

Prep Types

T = Total/NA

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: K Method: 7471A

Start Date: 10/29/2014 13:16 End Date: 10/29/2014 16:47

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				H g																	
IC 180-123192/1-A			13:16	X																	
IC 180-123192/2-A			13:17	X																	
IC 180-123192/3-A			13:19	X																	
IC 180-123192/4-A			13:21	X																	
IC 180-123192/5-A			13:22	X																	
IC 180-123192/6-A			13:24	X																	
ICV 180-123192/7-A	1		13:26	X																	
ICB 180-123192/8-A	1		13:29	X																	
CRA 180-123192/9-A	1		13:31	X																	
CCV 180-123192/10-A	1		13:32	X																	
CCB 180-123192/11-A	1		13:34	X																	
ZZZZZZ			13:36																		
ZZZZZZ			13:38																		
ZZZZZZ			13:40																		
ZZZZZZ			13:42																		
ZZZZZZ			13:43																		
ZZZZZZ			13:45																		
ZZZZZZ			13:47																		
ZZZZZZ			13:50																		
ZZZZZZ			13:52																		
ZZZZZZ			13:53																		
CCV 180-123192/10-A	1		13:55	X																	
CCB 180-123192/11-A	1		13:57	X																	
ZZZZZZ			13:59																		
ZZZZZZ			14:01																		
MB 180-123183/1-A	1	T	14:02	X																	
LCS 180-123183/2-A	1	T	14:04	X																	
180-37750-1	1	T	14:06	X																	
180-37750-2	1	T	14:08	X																	
180-37750-3	1	T	14:10	X																	
180-37750-4	1	T	14:11	X																	
180-37750-4 MS	1	T	14:13	X																	
180-37750-4 MSD	1	T	14:15	X																	
CCV 180-123192/10-A	1		14:17	X																	
CCB 180-123192/11-A	1		14:19	X																	
180-37750-5	1	T	14:21	X																	
180-37750-6	1	T	14:22	X																	
180-37750-7	1	T	14:24	X																	
180-37750-8	1	T	14:26	X																	
180-37750-9	1	T	14:28	X																	
ZZZZZZ			14:30																		
ZZZZZZ			14:32																		

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: K Method: 7471A

Start Date: 10/29/2014 13:16 End Date: 10/29/2014 16:47

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H g															
ZZZZZZ			14:34																
ZZZZZZ			14:36																
ZZZZZZ			14:37																
CCV 180-123192/10-A	1		14:39	X															
CCB 180-123192/11-A	1		14:41	X															
ZZZZZZ			14:43																
ZZZZZZ			14:45																
ZZZZZZ			14:47																
ZZZZZZ			14:49																
ZZZZZZ			14:51																
ZZZZZZ			14:53																
ZZZZZZ			14:55																
ZZZZZZ			14:57																
ZZZZZZ			14:59																
ZZZZZZ			15:01																
CCV 180-123192/10-A			15:03																
CCB 180-123192/11-A			15:06																
ZZZZZZ			15:08																
ZZZZZZ			15:10																
ZZZZZZ			15:12																
ZZZZZZ			15:14																
ZZZZZZ			15:16																
ZZZZZZ			15:18																
ZZZZZZ			15:20																
ZZZZZZ			15:22																
ZZZZZZ			15:24																
ZZZZZZ			15:26																
CCV 180-123192/10-A			15:27																
CCB 180-123192/11-A			15:29																
ZZZZZZ			15:32																
ZZZZZZ			15:33																
ZZZZZZ			15:35																
ZZZZZZ			15:37																
ZZZZZZ			15:39																
ZZZZZZ			15:41																
ZZZZZZ			15:43																
ZZZZZZ			15:45																
ZZZZZZ			15:47																
ZZZZZZ			15:49																
CCV 180-123192/10-A			15:51																
CCB 180-123192/11-A			15:53																
ZZZZZZ			15:55																

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: K Method: 7471A

Start Date: 10/29/2014 13:16 End Date: 10/29/2014 16:47

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				H g																	
ZZZZZZ			15:57																		
ZZZZZZ			15:59																		
ZZZZZZ			16:01																		
ZZZZZZ			16:02																		
ZZZZZZ			16:05																		
ZZZZZZ			16:06																		
ZZZZZZ			16:08																		
ZZZZZZ			16:10																		
ZZZZZZ			16:12																		
CCV 180-123192/10-A			16:13																		
CCB 180-123192/11-A			16:15																		
ZZZZZZ			16:17																		
ZZZZZZ			16:19																		
ZZZZZZ			16:21																		
ZZZZZZ			16:23																		
ZZZZZZ			16:24																		
ZZZZZZ			16:26																		
ZZZZZZ			16:28																		
ZZZZZZ			16:30																		
ZZZZZZ			16:31																		
ZZZZZZ			16:33																		
CCV 180-123192/10-A			16:35																		
CCB 180-123192/11-A			16:37																		
ZZZZZZ			16:39																		
ZZZZZZ			16:41																		
ZZZZZZ			16:43																		
CCV 180-123192/10-A			16:45																		
CCB 180-123192/11-A			16:47																		

Prep Types

T = Total/NA

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: M Start Date: 11/04/2014 End Date: 11/04/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD3 180-123945/4 IC	13:47	94		101		98		97		98	
ICV 180-123945/5	13:50	97		101		93		89		91	
ICB 180-123945/6	13:56	93		99		95		95		95	
ICSA 180-123945/8	14:11	64		66		73		70		77	
ICSAB 180-123945/9	14:14	59		67		70		74		78	
CCV 180-123945/10	14:21	74		81		86		79		88	
CCB1 180-123945/11	14:26	79		87		91		89		95	
CCV 180-123945/34	15:53	70		71		75		70		77	
CCB3 180-123945/35	15:59	85		87		82		83		87	
MB 180-123380/1-A	16:26	84		86		90		73		77	
LCS 180-123380/2-A	16:29	63		50		52		59		64	
CCV 180-123945/46	16:43	67		69		77		71		80	
CCB4 180-123945/47	16:49	90		91		88		83		88	
180-37750-1	17:10	79		64		0		69		79	
180-37750-2	17:14	65		57		0		58		68	
180-37750-3	17:18	66		56		0		58		69	
180-37750-4	17:21	68		58		0		65		75	
180-37750-4 SD	17:25	69		67		80		76		84	
CCV 180-123945/58	17:28	66		69		76		71		79	
CCB5 180-123945/59	17:34	81		86		87		82		88	
180-37750-4 MS	17:38	55		49		0		54		65	
180-37750-4 MSD	17:41	57		51		0		56		67	
180-37750-4 PDS	17:45	55		50		0		56		67	
180-37750-5	17:48	58		53		0		57		68	
180-37750-6	17:52	57		53		0		57		68	
180-37750-7	17:55	67		58		0		66		76	
180-37750-8	17:59	46		44		0		51		65	
180-37750-9	18:02	54		51		0		58		71	
CCV 180-123945/70	18:13	63		65		69		63		72	
CCB6 180-123945/71	18:19	82		84		82		77		82	
CRI 180-123945/72	18:23	69		91		113		77		88	

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: M Start Date: 11/04/2014 End Date: 11/04/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD3 180-123945/4 IC	13:47	97		97		97					
ICV 180-123945/5	13:50	93		93		89					
ICB 180-123945/6	13:56	96		96		99					
ICSA 180-123945/8	14:11	85		85		71					
ICSAB 180-123945/9	14:14	86		86		72					
CCV 180-123945/10	14:21	94		95		88					
CCB1 180-123945/11	14:26	98		99		103					
CCV 180-123945/34	15:53	83		84		75					
CCB3 180-123945/35	15:59	89		90		94					
MB 180-123380/1-A	16:26	84		86		84					
LCS 180-123380/2-A	16:29	77		79		63					
CCV 180-123945/46	16:43	88		88		79					
CCB4 180-123945/47	16:49	93		93		96					
180-37750-1	17:10	89		91		75					
180-37750-2	17:14	83		84		62					
180-37750-3	17:18	84		84		62					
180-37750-4	17:21	88		89		74					
180-37750-4 SD	17:25	92		94		89					
CCV 180-123945/58	17:28	87		87		78					
CCB5 180-123945/59	17:34	93		94		97					
180-37750-4 MS	17:38	78		80		63					
180-37750-4 MSD	17:41	82		84		66					
180-37750-4 PDS	17:45	81		82		66					
180-37750-5	17:48	84		84		62					
180-37750-6	17:52	83		84		62					
180-37750-7	17:55	89		92		75					
180-37750-8	17:59	79		79		57					
180-37750-9	18:02	88		89		66					
CCV 180-123945/70	18:13	78		78		70					
CCB6 180-123945/71	18:19	85		85		89					
CRI 180-123945/72	18:23	86		87		93					

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 11/05/2014 End Date: 11/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Y-89	Q	Element Rh-103	Q	Element In	Q
STD1 180-124210/2 IC	15:06	100		100		100		100		100	
STD2 180-124210/3 IC	15:11	96		93		96		79		81	
STD3 180-124210/4 IC	15:16	107		91		100		86		87	
ICV 180-124210/5	15:21	101		89		99		79		82	
ICB 180-124210/6	15:27	107		98		110		91		91	
ICSA 180-124210/8	15:54	76		71		86		64		67	
ICSAB 180-124210/9	15:59	72		66		71		61		64	
CCV 180-124210/10	16:05	78		69		83		67		67	
CCB1 180-124210/11	16:15	90		84		97		78		79	
CCV 180-124210/45	19:24	66		52		64		45		47	
CCB4 180-124210/46	19:34	87		79		76		64		65	
MB 180-123380/1-A	20:13	81		64		74		49		50	
LCS 180-123380/2-A	20:18	55		50		65		43		44	
CCV 180-124210/57	20:37	69		56		59		44		44	
CCB5 180-124210/58	20:47	83		76		78		73		76	
180-37750-1	21:22	69		58		0		50		51	
180-37750-2	21:27	62		55		0		42		42	
180-37750-3	21:32	60		54		0		44		44	
180-37750-5	21:37	63		51		0		40		40	
CCV 180-124210/69	21:42	68		52		57		44		45	
CCB6 180-124210/70	21:52	85		80		77		76		78	
180-37750-6	21:57	68		56		0		41		41	
180-37750-7	22:02	72		55		0		48		48	
180-37750-4	22:07	72		55		0		42		43	
180-37750-4 SD	22:12	74		60		0		53		53	
180-37750-4 MS	22:17	62		48		0		37		37	
180-37750-4 MSD	22:22	58		49		0		46		46	
180-37750-4 PDS	22:27	61		49		0		39		40	
180-37750-8	22:32	52		48		0		47		48	
180-37750-9	22:37	63		58		0		43		43	
CCV 180-124210/81	22:52	81		68		69		57		57	
CCB7 180-124210/82	23:01	92		75		78		73		74	
CRI 180-124210/109	01:36	58		50		51		39		39	

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 11/05/2014 End Date: 11/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-124210/2 IC	15:06	100		100		100					
STD2 180-124210/3 IC	15:11	88		88		89					
STD3 180-124210/4 IC	15:16	93		92		96					
ICV 180-124210/5	15:21	88		89		91					
ICB 180-124210/6	15:27	95		94		96					
ICSA 180-124210/8	15:54	81		82		82					
ICSAB 180-124210/9	15:59	79		79		80					
CCV 180-124210/10	16:05	79		79		83					
CCB1 180-124210/11	16:15	88		87		93					
CCV 180-124210/45	19:24	65		65		60					
CCB4 180-124210/46	19:34	79		80		75					
MB 180-123380/1-A	20:13	66		67		66					
LCS 180-123380/2-A	20:18	64		64		56					
CCV 180-124210/57	20:37	61		62		57					
CCB5 180-124210/58	20:47	80		80		76					
180-37750-1	21:22	67		67		65					
180-37750-2	21:27	63		63		53					
180-37750-3	21:32	63		63		59					
180-37750-5	21:37	59		60		52					
CCV 180-124210/69	21:42	58		59		59					
CCB6 180-124210/70	21:52	78		79		86					
180-37750-6	21:57	61		61		54					
180-37750-7	22:02	63		63		63					
180-37750-4	22:07	59		59		52					
180-37750-4 SD	22:12	65		65		70					
180-37750-4 MS	22:17	56		56		47					
180-37750-4 MSD	22:22	63		63		62					
180-37750-4 PDS	22:27	58		58		51					
180-37750-8	22:32	64		65		61					
180-37750-9	22:37	63		62		50					
CCV 180-124210/81	22:52	67		67		68					
CCB7 180-124210/82	23:01	77		76		80					
CRI 180-124210/109	01:36	51		51		70					



Sample Name: STD1      Acquired: 10/28/2014 5:31:07      Type: Cal  
Method: PITT-6500ICP-2(v313)      Mode: IR      Corr. Factor: 1.000000  
User: RGood      Custom ID1:      Custom ID2:      Custom ID3:  
Comment:

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>-.00014</b>	<b>.00070</b>	<b>-.00005</b>	<b>.00062</b>	<b>.00197</b>	<b>-.00113</b>
Stddev	.00010	.00018	.00003	.00002	.00033	.00017
%RSD	71.694	25.343	66.764	3.3939	16.618	14.842

#1	<b>-.00019</b>	<b>.00071</b>	<b>-.00008</b>	<b>.00060</b>	<b>.00160</b>	<b>-.00108</b>
#2	<b>-.00003</b>	<b>.00087</b>	<b>-.00001</b>	<b>.00064</b>	<b>.00223</b>	<b>-.00132</b>
#3	<b>-.00021</b>	<b>.00052</b>	<b>-.00006</b>	<b>.00062</b>	<b>.00207</b>	<b>-.00100</b>

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>.01008</b>	<b>.00050</b>	<b>.00020</b>	<b>-.00000</b>	<b>-.02395</b>	<b>.00020</b>
Stddev	.00019	.00024	.00021	.00005	.00130	.00021
%RSD	1.9172	48.619	103.29	22993.	5.4345	103.32

#1	<b>.00989</b>	<b>.00033</b>	<b>.00023</b>	<b>-.00000</b>	<b>-.02274</b>	<b>.00018</b>
#2	<b>.01006</b>	<b>.00077</b>	<b>-.00002</b>	<b>.00005</b>	<b>-.02532</b>	<b>.00042</b>
#3	<b>.01028</b>	<b>.00039</b>	<b>.00039</b>	<b>-.00005</b>	<b>-.02378</b>	<b>.00000</b>

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>.00062</b>	<b>.00315</b>	<b>-.00025</b>	<b>.00064</b>	<b>.00066</b>	<b>.00261</b>
Stddev	.00050	.00048	.00016	.00035	.00007	.00111
%RSD	81.407	15.166	62.822	54.200	10.700	42.616

#1	<b>.00047</b>	<b>.00267</b>	<b>-.00034</b>	<b>.00029</b>	<b>.00070</b>	<b>.00272</b>
#2	<b>.00021</b>	<b>.00362</b>	<b>-.00033</b>	<b>.00066</b>	<b>.00058</b>	<b>.00145</b>
#3	<b>.00118</b>	<b>.00315</b>	<b>-.00007</b>	<b>.00098</b>	<b>.00070</b>	<b>.00367</b>

Sample Name: STD1      Acquired: 10/28/2014 5:31:07      Type: Cal  
Method: PITT-6500ICP-2(v313)      Mode: IR      Corr. Factor: 1.000000  
User: RGood      Custom ID1:      Custom ID2:      Custom ID3:  
Comment:

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00213	-.00034	-.00063	.00003	.00022	-.00003
Stddev	.00016	.00048	.00009	.00004	.00020	.00006
%RSD	7.4008	142.99	14.259	169.94	88.007	233.91

#1	.00230	-.00050	-.00061	-.00002	.00044	.00003
#2	.00209	.00021	-.00056	.00003	.00016	-.00010
#3	.00200	-.00071	-.00073	.00007	.00007	-.00002

Elem	Sr	Ti	Tl	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00042	.00105	-.00078	-.00001	.00139
Stddev	.00057	.00032	.00023	.00002	.00011
%RSD	134.44	30.484	29.111	215.22	7.8974

#1	-.00067	.00112	-.00100	-.00003	.00142
#2	.00023	.00070	-.00055	.00001	.00149
#3	-.00083	.00132	-.00078	-.00001	.00127

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2954.6	4651.1	66023.	11310.
Stddev	3.7	8.7	105.	135.
%RSD	.12624	.18702	.15861	1.1963

#1	2954.5	4654.6	66125.	11457.
#2	2958.4	4657.6	65916.	11190.
#3	2950.9	4641.3	66028.	11283.

Sample Name: STD2A      Acquired: 10/28/2014 5:36:15      Type: Cal  
Method: PITT-6500ICP-2(v313)      Mode: IR      Corr. Factor: 1.000000  
User: RGood      Custom ID1:      Custom ID2:      Custom ID3:  
Comment:

Elem	Ag	As	B_	Ba	Be	Cd
Line	328.068 {103}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}	228.802 {447}
IS Ref	(Y_3600)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>.72045</b>	<b>.07942</b>	<b>1.3885</b>	<b>18.925</b>	<b>19.091</b>	<b>2.5014</b>
Stddev	.00081	.00013	.0019	.019	.188	.0018
%RSD	.11304	.16295	.13561	.10053	.98236	.07269

#1	.71951	.07949	1.3895	18.947	19.206	2.5031
#2	.72081	.07949	1.3896	18.917	19.193	2.5015
#3	.72102	.07927	1.3863	18.912	18.875	2.4995

Elem	Co	Cr	Cu	Li	Mn	Mo
Line	228.616 {447}	267.716 {126}	327.396 {103}	670.784 { 50}	257.610 {131}	202.030 {467}
IS Ref	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>7.7774</b>	<b>.80540</b>	<b>5.8919</b>	<b>4.5847</b>	<b>28.657</b>	<b>3.0069</b>
Stddev	.0093	.00098	.0261	.0068	.160	.0023
%RSD	.11922	.12221	.44327	.14864	.55903	.07510

#1	7.7672	.80582	5.8617	4.5926	28.472	3.0089
#2	7.7854	.80427	5.9081	4.5803	28.745	3.0074
#3	7.7796	.80610	5.9057	4.5813	28.754	3.0045

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(ln2306)	(ln2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>3.4607</b>	<b>.44094</b>	<b>.15731</b>	<b>.07363</b>	<b>.14579</b>	<b>1.0639</b>
Stddev	.0052	.00028	.00021	.00022	.00057	.0012
%RSD	.14881	.06332	.13225	.30408	.38829	.10863

#1	3.4550	.44124	.15755	.07388	.14522	1.0642
#2	3.4621	.44070	.15718	.07356	.14635	1.0626
#3	3.4650	.44087	.15720	.07345	.14581	1.0649

Sample Name: STD2A      Acquired: 10/28/2014 5:36:15      Type: Cal  
Method: PITT-6500ICP-2(v313)      Mode: IR      Corr. Factor: 1.000000  
User: RGood      Custom ID1:      Custom ID2:      Custom ID3:  
Comment:

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>.45845</b>	<b>16.567</b>	<b>.40822</b>	<b>.08212</b>	<b>3.6605</b>
Stddev	.00148	.027	.00030	.00028	.0092
%RSD	.32338	.16191	.07360	.33724	.25072
#1	.45699	16.542	.40804	.08244	3.6518
#2	.45841	16.564	.40857	.08197	3.6595
#3	.45996	16.596	.40806	.08195	3.6701
Int. Std.	In2306	Y_2243	Y_3600	Y_3710	
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}	
Units	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	<b>2765.7</b>	<b>4600.9</b>	<b>65196.</b>	<b>11286.</b>	
Stddev	4.2	3.6	68.	54.	
%RSD	.15203	.07777	.10378	.47494	
#1	2770.6	4602.2	65274.	11347.	
#2	2763.1	4596.8	65160.	11259.	
#3	2763.5	4603.6	65154.	11251.	

Sample Name: STD3      Acquired: 10/28/2014 5:41:20      Type: Cal  
Method: PITT-6500ICP-2(v313)      Mode: IR      Corr. Factor: 1.000000  
User: RGood      Custom ID1:      Custom ID2:      Custom ID3:  
Comment:

Elem	Al	Ca	Fe	K_	Mg	Na
Line	308.215 {109}	317.933 {106}	259.940 {130}	766.490 { 44}	279.079 {121}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>1.1569</b>	<b>12.985</b>	<b>4.3547</b>	<b>8.5711</b>	<b>1.0810</b>	<b>44.134</b>
Stddev	.0009	.036	.0034	.0312	.0037	.576
%RSD	.07985	.27399	.07719	.36348	.34291	1.3046
#1	1.1571	13.014	4.3586	8.6031	1.0833	44.762
#2	1.1578	12.945	4.3524	8.5693	1.0767	43.631
#3	1.1559	12.996	4.3532	8.5409	1.0830	44.007
Int. Std.	Y_3710					
Line	371.030 { 91}					
Units	Cts/S					
Avg	<b>11036.</b>					
Stddev	59.					
%RSD	.53237					
#1	11002.					
#2	11104.					
#3	11003.					

Sample Name: ICV 1366704      Acquired: 10/28/2014 5:46:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50115	12.636	.25699	W 1.0594	1.0139	1.0102
Stddev	.00267	.017	.00089	.0012	.0044	.0033
%RSD	.53368	.13829	.34665	.11731	.43177	.32731

#1	.50135	12.643	.25784	1.0608	1.0156	1.0102
#2	.50372	12.648	.25706	1.0586	1.0172	1.0135
#3	.49838	12.616	.25607	1.0587	1.0089	1.0069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value				1.0000		
Range				5.5000%		

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.634	.25249	1.0173	.99686	.98294	13.006
Stddev	.074	.00058	.0014	.00897	.00227	.018
%RSD	.28799	.23120	.13339	.89959	.23129	.13463

#1	25.556	.25316	1.0185	.99312	.98032	12.986
#2	25.702	.25206	1.0159	1.0071	.98408	13.018
#3	25.643	.25226	1.0176	.99037	.98442	13.014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 1366704      Acquired: 10/28/2014 5:46:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.810</b>	<b>1.0103</b>	<b>25.244</b>	<b>.96911</b>	<b>.99474</b>	<b>51.604</b>
Stddev	.117	.0036	.115	.00459	.00067	.101
%RSD	.23549	.35402	.45446	.47348	.06715	.19638

#1	49.679	1.0123	25.116	.96455	.99417	51.589
#2	49.905	1.0124	25.338	.97372	.99456	51.712
#3	49.846	1.0062	25.277	.96907	.99548	51.511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0173</b>	<b>.25162</b>	<b>.25047</b>	<b>.25349</b>	<b>1.0790</b>	<b>.97539</b>
Stddev	.0010	.00311	.00047	.00163	.0018	.00030
%RSD	.10089	1.2366	.18737	.64250	.16229	.03114

#1	1.0176	.25427	.25100	.25325	1.0770	.97508
#2	1.0162	.24819	.25030	.25200	1.0798	.97542
#3	1.0181	.25239	.25011	.25523	1.0801	.97568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value						
Range						

Sample Name: ICV 1366704      Acquired: 10/28/2014 5:46:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99763	.98867	.50910	1.0404	.99819
Stddev	.00686	.00592	.00473	.0043	.00035
%RSD	.68748	.59904	.92829	.41423	.03525

#1	1.0045	.98242	.51424	1.0436	.99819
#2	.99750	.99420	.50493	1.0422	.99785
#3	.99083	.98937	.50814	1.0355	.99855

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.6	4493.8	62744.	11208.
Stddev	5.0	7.1	196.	63.
%RSD	.19366	.15819	.31284	.56370

#1	2577.6	4486.2	62922.	11281.
#2	2587.6	4500.3	62533.	11170.
#3	2582.8	4495.0	62777.	11173.



Sample Name: ICBIS      Acquired: 10/28/2014 5:51:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00027</b>	<b>-.00132</b>	<b>.00083</b>	<b>.00078</b>	<b>.00006</b>	<b>.00003</b>
Stddev	.00016	.01244	.00081	.00041	.00019	.00004
%RSD	59.275	944.31	97.536	52.907	310.73	131.13

#1	<b>-.00042</b>	<b>.00985</b>	<b>.00093</b>	<b>.00120</b>	<b>.00026</b>	<b>.00008</b>
#2	<b>-.00010</b>	<b>.00092</b>	<b>.00159</b>	<b>.00076</b>	<b>.00002</b>	<b>-.00000</b>
#3	<b>-.00028</b>	<b>-.01472</b>	<b>-.00003</b>	<b>.00038</b>	<b>-.00010</b>	<b>.00002</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00932</b>	<b>-.00009</b>	<b>.00003</b>	<b>-.00010</b>	<b>.00097</b>	<b>.00112</b>
Stddev	.00230	.00010	.00005	.00011	.00045	.00115
%RSD	24.655	103.56	156.27	105.49	46.159	102.77

#1	<b>-.01191</b>	<b>-.00020</b>	<b>.00002</b>	<b>-.00006</b>	<b>.00149</b>	<b>.00182</b>
#2	<b>-.00855</b>	<b>-.00005</b>	<b>-.00001</b>	<b>-.00002</b>	<b>.00068</b>	<b>.00175</b>
#3	<b>-.00751</b>	<b>-.00002</b>	<b>.00010</b>	<b>-.00022</b>	<b>.00074</b>	<b>-.00021</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICBIS      Acquired: 10/28/2014 5:51:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06913	.00037	.00231	.00003	.00063	.02049
Stddev	.02063	.00046	.02648	.00003	.00023	.00335
%RSD	29.841	122.56	1146.0	117.13	35.934	16.373

#1	.07824	.00047	.03169	.00002	.00078	.02356
#2	.08363	-.00012	-.00501	.00006	.00074	.01691
#3	.04551	.00077	-.01974	-.00000	.00037	.02099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00062	.00093	-.00130	.00396	-.00009
Stddev	.00006	.00093	.00037	.00107	.00450	.00040
%RSD	26.643	150.38	39.538	82.784	113.74	448.54

#1	.00032	.00143	.00068	-.00074	.00637	.00023
#2	.00020	-.00040	.00135	-.00253	.00675	.00004
#3	.00021	.00083	.00076	-.00062	-.00124	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICBIS      Acquired: 10/28/2014 5:51:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00168	.00008	.00121	.00001	-.00027
Stddev	.00414	.00011	.00059	.00120	.00011
%RSD	245.71	130.66	48.531	15782.	42.570

#1	.00242	.00019	.00053	.00108	-.00024
#2	-.00277	.00007	.00151	-.00129	-.00039
#3	.00541	-.00002	.00158	.00023	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2951.3	4635.9	65810.	11210.
Stddev	2.3	8.1	132.	49.
%RSD	.07695	.17557	.19998	.43995

#1	2948.9	4626.5	65932.	11266.
#2	2951.6	4640.5	65670.	11174.
#3	2953.4	4640.7	65829.	11190.

Sample Name: CRI 1369147      Acquired: 10/28/2014 5:56:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00508	.20469	.01232	.20673	.20272	.00401
Stddev	.00034	.01061	.00013	.00044	.00009	.00008
%RSD	6.6461	5.1848	1.0374	.21390	.04412	1.9154

#1	.00547	.19558	.01224	.20723	.20276	.00402
#2	.00489	.20216	.01226	.20642	.20262	.00408
#3	.00488	.21634	.01247	.20653	.20278	.00393

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1506	.00503	.04870	.00508	.02612	.10591
Stddev	.0065	.00008	.00019	.00013	.00070	.00340
%RSD	.12546	1.5827	.39883	2.6477	2.6719	3.2087

#1	5.1554	.00502	.04888	.00496	.02557	.10876
#2	5.1531	.00495	.04874	.00506	.02690	.10681
#3	5.1432	.00511	.04849	.00523	.02588	.10215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 5:56:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>5.0370</b>	<b>.04933</b>	<b>5.1458</b>	<b>.01531</b>	<b>.04078</b>	<b>5.2874</b>
Stddev	.0241	.00054	.0127	.00001	.00015	.0093
%RSD	.47923	1.0881	.24736	.07557	.35946	.17511

#1	5.0093	.04914	5.1548	.01532	.04093	5.2964
#2	5.0535	.04891	5.1515	.01531	.04064	5.2878
#3	5.0482	.04994	5.1313	.01530	.04076	5.2779

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03919</b>	<b>.01040</b>	<b>.01087</b>	<b>.01137</b>	<b>.50820</b>	<b>.10317</b>
Stddev	.00063	.00132	.00049	.00211	.00413	.00054
%RSD	1.6175	12.735	4.5022	18.588	.81325	.52407

#1	.03959	.00953	.01033	.01176	.51297	.10368
#2	.03953	.00975	.01101	.00909	.50599	.10324
#3	.03846	.01193	.01128	.01326	.50564	.10260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 5:56:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05284</b>	<b>.05226</b>	<b>.01980</b>	<b>.05170</b>	<b>.01997</b>
Stddev	.00250	.00012	.00111	.00172	.00012
%RSD	4.7315	.23773	5.5822	3.3219	.58571

#1	<b>.05490</b>	<b>.05212</b>	<b>.02107</b>	<b>.05088</b>	<b>.02010</b>
#2	<b>.05006</b>	<b>.05235</b>	<b>.01920</b>	<b>.05367</b>	<b>.01991</b>
#3	<b>.05354</b>	<b>.05232</b>	<b>.01912</b>	<b>.05055</b>	<b>.01989</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2864.8</b>	<b>4593.2</b>	<b>64884.</b>	<b>11355.</b>
Stddev	2.2	4.2	20.	26.
%RSD	.07509	.09225	.03020	.22612

#1	<b>2862.4</b>	<b>4589.2</b>	<b>64875.</b>	<b>11384.</b>
#2	<b>2866.3</b>	<b>4597.6</b>	<b>64870.</b>	<b>11347.</b>
#3	<b>2865.8</b>	<b>4592.6</b>	<b>64906.</b>	<b>11335.</b>

Sample Name: ICSA 1338299      Acquired: 10/28/2014 6:01:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00030</b>	<b>503.30</b>	<b>-.00435</b>	<b>.00115</b>	<b>.00022</b>	<b>-.00002</b>
Stddev	.00008	.35	.00323	.00042	.00015	.00002
%RSD	28.449	.06950	74.359	36.355	68.535	105.05

#1	<b>-.00028</b>	<b>503.50</b>	<b>-.00734</b>	<b>.00090</b>	<b>.00034</b>	<b>-.00004</b>
#2	<b>-.00039</b>	<b>502.89</b>	<b>-.00092</b>	<b>.00164</b>	<b>.00005</b>	<b>-.00002</b>
#3	<b>-.00022</b>	<b>503.50</b>	<b>-.00477</b>	<b>.00092</b>	<b>.00026</b>	<b>.00000</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>467.65</b>	<b>.00026</b>	<b>-.00056</b>	<b>.00247</b>	<b>.01145</b>	<b>189.86</b>
Stddev	5.41	.00003	.00035	.00106	.00065	.77
%RSD	1.1571	10.365	61.569	42.991	5.6919	.40296

#1	<b>467.95</b>	<b>.00029</b>	<b>-.00029</b>	<b>.00211</b>	<b>.01152</b>	<b>190.49</b>
#2	<b>462.09</b>	<b>.00025</b>	<b>-.00095</b>	<b>.00366</b>	<b>.01206</b>	<b>189.01</b>
#3	<b>472.90</b>	<b>.00024</b>	<b>-.00045</b>	<b>.00164</b>	<b>.01076</b>	<b>190.07</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 1338299      Acquired: 10/28/2014 6:01:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04042	.00480	517.26	.00062	-.00237	.02760
Stddev	.02349	.00071	2.01	.00007	.00064	.00336
%RSD	58.128	14.717	.38855	10.980	26.835	12.175

#1	.01512	.00468	519.08	.00065	-.00261	.02881
#2	.06154	.00416	515.10	.00066	-.00165	.03018
#3	.04460	.00556	517.61	.00054	-.00286	.02380

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00609	.00066	-.00634	.00089	.00527	.00194
Stddev	.00057	.00184	.00156	.00566	.00658	.00101
%RSD	9.3943	280.77	24.555	638.61	124.81	52.274

#1	.00546	-.00050	-.00496	-.00337	.01262	.00141
#2	.00625	-.00031	-.00603	.00731	-.00008	.00311
#3	.00657	.00278	-.00803	-.00128	.00328	.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: ICSA 1338299      Acquired: 10/28/2014 6:01:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01043	-.00064	-.00617	.00916	.00377
Stddev	.00145	.00012	.00264	.00208	.00014
%RSD	13.861	18.530	42.779	22.756	3.7836

#1	.01204	-.00076	-.00502	.00805	.00374
#2	.00923	-.00052	-.00919	.00786	.00364
#3	.01004	-.00065	-.00430	.01156	.00392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2141.8	4070.5	56009.	10786.
Stddev	2.7	2.9	120.	67.
%RSD	.12533	.07113	.21403	.62531

#1	2144.7	4072.3	55900.	10734.
#2	2139.4	4072.1	56137.	10862.
#3	2141.5	4067.2	55989.	10761.

Sample Name: ICSAB 1373674      Acquired: 10/28/2014 6:07:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.1072</b>	<b>503.83</b>	<b>.98606</b>	<b>.97580</b>	<b>.50436</b>	<b>.48548</b>
Stddev	.0004	.88	.00498	.00209	.00034	.00060
%RSD	.03783	.17544	.50467	.21436	.06733	.12441

#1	1.1076	504.83	.99150	.97505	.50444	.48564
#2	1.1072	503.16	.98175	.97419	.50399	.48482
#3	1.1067	503.50	.98491	.97817	.50466	.48599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>467.98</b>	<b>1.0213</b>	<b>.49605</b>	<b>.47768</b>	<b>.48822</b>	<b>189.84</b>
Stddev	4.52	.0004	.00091	.00302	.00335	.30
%RSD	.96502	.03965	.18371	.63317	.68579	.15761

#1	473.19	1.0217	.49653	.47423	.49139	190.17
#2	465.11	1.0209	.49663	.47894	.48856	189.76
#3	465.64	1.0212	.49500	.47987	.48472	189.59

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 1373674      Acquired: 10/28/2014 6:07:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.483</b>	<b>1.0585</b>	<b>514.18</b>	<b>.42442</b>	<b>.92436</b>	<b>10.885</b>
Stddev	.043	.0011	1.21	.00295	.00120	.022
%RSD	.41471	.10488	.23499	.69622	.12959	.20494

#1	10.523	1.0579	515.40	.42739	.92495	10.906
#2	10.437	1.0579	514.16	.42440	.92299	10.862
#3	10.490	1.0598	512.98	.42148	.92516	10.886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.97997</b>	<b>.96231</b>	<b>.99971</b>	<b>.98077</b>	<b>1.0126</b>	<b>.86469</b>
Stddev	.00250	.00791	.00520	.00559	.0113	.00200
%RSD	.25497	.82203	.52049	.57041	1.1153	.23123

#1	.98266	.97144	.99529	.97503	1.0238	.86685
#2	.97955	.95768	.99839	.98620	1.0012	.86432
#3	.97771	.95780	1.0054	.98108	1.0130	.86290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 1373674      Acquired: 10/28/2014 6:07:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.93558</b>	<b>.88261</b>	<b>.90539</b>	<b>.55462</b>	<b>.89401</b>
Stddev	.00450	.00392	.00626	.00251	.00333
%RSD	.48099	.44410	.69197	.45247	.37270

#1	<b>.93721</b>	<b>.88650</b>	<b>.91187</b>	<b>.55331</b>	<b>.89678</b>
#2	<b>.93049</b>	<b>.88269</b>	<b>.90494</b>	<b>.55303</b>	<b>.89494</b>
#3	<b>.93903</b>	<b>.87866</b>	<b>.89936</b>	<b>.55751</b>	<b>.89031</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2098.7</b>	<b>4026.2</b>	<b>55350.</b>	<b>10797.</b>
Stddev	3.7	3.6	124.	66.
%RSD	.17695	.08882	.22315	.60857

#1	2094.9	4022.3	55470.	10732.
#2	2098.8	4027.1	55223.	10796.
#3	2102.3	4029.3	55358.	10863.

Sample Name: CCV 1369837      Acquired: 10/28/2014 6:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0426	25.371	.52412	2.0779	2.0191	2.0246
Stddev	.0019	.091	.00209	.0027	.0037	.0024
%RSD	.18489	.35851	.39793	.13017	.18497	.11829

#1	1.0436	25.396	.52566	2.0763	2.0158	2.0273
#2	1.0438	25.271	.52174	2.0763	2.0182	2.0228
#3	1.0404	25.447	.52495	2.0810	2.0231	2.0237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.059	.51427	2.0962	2.0038	1.9170	25.871
Stddev	.216	.00027	.0033	.0073	.0113	.054
%RSD	.42304	.05186	.15682	.36658	.58740	.20783

#1	51.224	.51456	2.0983	2.0123	1.9300	25.932
#2	50.815	.51423	2.0924	2.0002	1.9112	25.848
#3	51.139	.51403	2.0979	1.9989	1.9099	25.832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 6:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.41	2.0219	50.771	1.8851	1.9901	129.65
Stddev	.38	.0029	.160	.0173	.0019	.32
%RSD	.29691	.14268	.31517	.91935	.09334	.25044

#1	126.53	2.0187	50.953	1.9028	1.9885	129.70
#2	125.99	2.0226	50.651	1.8682	1.9896	129.31
#3	126.70	2.0243	50.711	1.8842	1.9921	129.95

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0849	.51425	.50828	.51900	2.0573	1.9346
Stddev	.0024	.00390	.00083	.00246	.0055	.0036
%RSD	.11441	.75788	.16235	.47304	.26626	.18327

#1	2.0859	.51069	.50876	.51937	2.0630	1.9353
#2	2.0822	.51363	.50732	.51638	2.0521	1.9377
#3	2.0866	.51841	.50875	.52124	2.0568	1.9308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 6:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9769	1.9377	.98088	2.1558	1.9938
Stddev	.0099	.0121	.00351	.0153	.0020
%RSD	.50086	.62699	.35819	.70910	.09851

#1	1.9881	1.9510	.97988	2.1403	1.9959
#2	1.9692	1.9272	.97797	2.1708	1.9920
#3	1.9735	1.9348	.98478	2.1564	1.9934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2394.2	4346.5	60439.	11107.
Stddev	3.9	3.3	114.	90.
%RSD	.16398	.07694	.18905	.80808

#1	2391.5	4344.3	60357.	11021.
#2	2398.7	4350.3	60570.	11200.
#3	2392.4	4344.9	60391.	11100.

Sample Name: CCB1      Acquired: 10/28/2014 6:16:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00416	.00064	.00100	.00001	.00008
Stddev	.00017	.00957	.00124	.00012	.00014	.00006
%RSD	132.38	230.04	193.87	12.229	1297.2	71.935

#1	.00025	-.01515	-.00075	.00107	.00016	.00014
#2	.00020	.00033	.00104	.00107	-.00001	.00008
#3	-.00007	.00234	.00163	.00086	-.00012	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01061	.00002	.00007	-.00007	.00049	.00219
Stddev	.00077	.00003	.00003	.00038	.00029	.00184
%RSD	7.2943	177.56	37.667	523.58	59.954	83.852

#1	-.01045	.00004	.00005	-.00043	.00049	.00365
#2	-.00994	.00002	.00010	.00033	.00077	.00013
#3	-.01146	-.00001	.00006	-.00012	.00019	.00279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: CCB1      Acquired: 10/28/2014 6:16:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00599	-.00076	.02153	.00004	.00144	.01031
Stddev	.02449	.00110	.00322	.00002	.00023	.00471
%RSD	408.72	144.49	14.975	41.975	15.791	45.680

#1	.03295	-.00174	.02130	.00005	.00165	.00528
#2	-.01489	.00043	.01843	.00006	.00148	.01461
#3	-.00009	-.00098	.02486	.00002	.00120	.01102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00037	.00059	.00150	.00171	.00008
Stddev	.00029	.00193	.00072	.00118	.00293	.00056
%RSD	1297.0	516.75	121.24	78.248	170.69	699.71

#1	.00024	.00258	.00107	.00286	-.00061	-.00010
#2	-.00030	-.00101	-.00023	.00085	.00500	.00071
#3	.00013	-.00046	.00094	.00079	.00076	-.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB1      Acquired: 10/28/2014 6:16:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00009	.00058	.00223	-.00028
Stddev	.00172	.00010	.00066	.00053	.00012
%RSD	240.12	120.77	114.20	23.751	44.440

#1	.00073	-.00001	.00097	.00283	-.00035
#2	-.00101	.00008	.00094	.00182	-.00036
#3	.00242	.00019	-.00018	.00205	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2940.2	4614.5	65512.	11214.
Stddev	.8	4.9	203.	79.
%RSD	.02632	.10632	.31052	.70778

#1	2940.4	4608.8	65429.	11156.
#2	2939.3	4617.2	65744.	11181.
#3	2940.8	4617.4	65363.	11304.

Sample Name: 180-37781-D-4-A@2      Acquired: 10/28/2014 6:21:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00126</b>	<b>5.1348</b>	<b>-.00714</b>	<b>.08077</b>	<b>.00469</b>	<b>.00467</b>
Stddev	.00016	.0182	.00176	.00037	.00007	.00005
%RSD	12.637	.35363	24.601	.45968	1.5524	.97951

#1	<b>-.00112</b>	<b>5.1551</b>	<b>-.00894</b>	<b>.08036</b>	<b>.00463</b>	<b>.00469</b>
#2	<b>-.00144</b>	<b>5.1291</b>	<b>-.00543</b>	<b>.08086</b>	<b>.00467</b>	<b>.00461</b>
#3	<b>-.00123</b>	<b>5.1202</b>	<b>-.00704</b>	<b>.08109</b>	<b>.00477</b>	<b>.00469</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>84.219</b>	<b>.00319</b>	<b>.14693</b>	<b>.00764</b>	<b>.00609</b>	<b>63.249</b>
Stddev	.076	.00011	.00086	.00049	.00016	.177
%RSD	.08984	3.4641	.58213	6.4015	2.5760	.27912

#1	<b>84.263</b>	<b>.00325</b>	<b>.14763</b>	<b>.00796</b>	<b>.00601</b>	<b>63.445</b>
#2	<b>84.263</b>	<b>.00326</b>	<b>.14718</b>	<b>.00789</b>	<b>.00599</b>	<b>63.199</b>
#3	<b>84.132</b>	<b>.00306</b>	<b>.14597</b>	<b>.00708</b>	<b>.00628</b>	<b>63.103</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37781-D-4-A@2      Acquired: 10/28/2014 6:21:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>6.4157</b>	<b>.01657</b>	<b>20.854</b>	<b>22.071</b>	<b>-.00208</b>	<b>21.367</b>
Stddev	.0327	.00037	.032	.116	.00015	.021
%RSD	.50904	2.2315	.15435	.52422	7.0038	.09693

#1	6.4060	.01679	20.866	22.082	-.00204	21.358
#2	6.3890	.01614	20.878	22.180	-.00224	21.352
#3	6.4521	.01677	20.817	21.949	-.00196	21.391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.09126</b>	<b>.00501</b>	<b>-.00081</b>	<b>.00178</b>	<b>6.6409</b>	<b>.00068</b>
Stddev	.00091	.00363	.00097	.00068	.0283	.00046
%RSD	.99497	72.325	119.31	38.265	.42611	68.427

#1	.09139	.00716	-.00136	.00133	6.6190	.00040
#2	.09209	.00705	.00031	.00145	6.6729	.00042
#3	.09029	.00083	-.00137	.00257	6.6308	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37781-D-4-A@2      Acquired: 10/28/2014 6:21:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.25008</b>	<b>.00523</b>	<b>.00496</b>	<b>.00713</b>	<b>.35789</b>
Stddev	.00360	.00004	.00065	.00164	.00111
%RSD	1.4402	.68565	13.050	22.952	.31077

#1	.25053	.00520	.00425	.00859	.35758
#2	.25344	.00527	.00513	.00536	.35912
#3	.24628	.00523	.00551	.00744	.35697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2570.5</b>	<b>4780.4</b>	<b>67992.</b>	<b>12481.</b>
Stddev	8.3	7.8	138.	58.
%RSD	.32468	.16212	.20326	.46544

#1	2561.6	4771.7	67919.	12475.
#2	2571.7	4786.6	68151.	12426.
#3	2578.1	4782.9	67905.	12541.

Sample Name: MB 180-122787/1-A      Acquired: 10/28/2014 6:27:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00233	.00097	.00014	.00017	.00001
Stddev	.00029	.01361	.00052	.00032	.00008	.00007
%RSD	744.12	582.92	53.670	231.33	47.959	794.97

#1	.00016	-.01396	.00044	-.00006	.00025	-.00003
#2	.00024	.01263	.00098	-.00003	.00018	.00009
#3	-.00029	-.00568	.00148	.00051	.00008	-.00004

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass	None
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	.00018	-.00006	.00033	.00110	.00521
Stddev	.00186	.00010	.00006	.00034	.00036	.00243
%RSD	177.08	56.535	104.67	102.09	32.999	46.509

#1	.00311	.00018	-.00002	.00048	.00070	.00679
#2	-.00049	.00008	-.00013	.00057	.00140	.00242
#3	.00052	.00029	-.00002	-.00006	.00121	.00643

Check ?	None	Chk Pass	None	Chk Pass	None	None
High Limit						
Low Limit						

Sample Name: MB 180-122787/1-A      Acquired: 10/28/2014 6:27:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.02328</b>	<b>-.00119</b>	<b>.00036</b>	<b>.00038</b>	<b>-.00036</b>	<b>.01190</b>
Stddev	.02802	.00066	.01629	.00004	.00011	.00376
%RSD	120.40	55.365	4540.9	11.413	31.000	31.562

#1	<b>-.01706</b>	<b>-.00189</b>	<b>.00378</b>	<b>.00036</b>	<b>-.00043</b>	<b>.01129</b>
#2	<b>.00112</b>	<b>-.00059</b>	<b>-.01737</b>	<b>.00043</b>	<b>-.00023</b>	<b>.00849</b>
#3	<b>-.05389</b>	<b>-.00107</b>	<b>.01467</b>	<b>.00035</b>	<b>-.00043</b>	<b>.01593</b>

Check ?	None	None	None	None	None	None
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00055</b>	<b>.00007</b>	<b>-.00019</b>	<b>.00283</b>	<b>.00546</b>	<b>.00008</b>
Stddev	.00031	.00064	.00178	.00189	.00197	.00052
%RSD	55.418	870.65	928.15	66.861	36.137	622.35

#1	<b>.00080</b>	<b>-.00025</b>	<b>-.00100</b>	<b>.00232</b>	<b>.00655</b>	<b>.00063</b>
#2	<b>.00021</b>	<b>.00081</b>	<b>.00185</b>	<b>.00125</b>	<b>.00664</b>	<b>-.00041</b>
#3	<b>.00065</b>	<b>-.00034</b>	<b>-.00143</b>	<b>.00493</b>	<b>.00318</b>	<b>.00003</b>

Check ?	None	<b>Chk Pass</b>	None	<b>Chk Pass</b>	None	None
High Limit						
Low Limit						

Sample Name: MB 180-122787/1-A      Acquired: 10/28/2014 6:27:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00179	.00015	-.00023	.00017	.00207
Stddev	.00265	.00004	.00076	.00166	.00016
%RSD	148.51	28.690	330.38	988.76	7.5309

#1	-.00126	.00018	-.00011	-.00066	.00206
#2	.00308	.00017	-.00104	-.00092	.00223
#3	.00354	.00010	.00046	.00208	.00192

Check ?	None	None	None	None	None
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.3	4557.2	65585.	11298.
Stddev	4.3	2.3	143.	74.
%RSD	.14872	.05027	.21761	.65389

#1	2909.3	4555.9	65544.	11214.
#2	2917.4	4559.8	65467.	11353.
#3	2916.2	4555.8	65744.	11328.



Sample Name: LB 180-122610/9-B      Acquired: 10/28/2014 6:32:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00009</b>	<b>-.00465</b>	<b>.00039</b>	<b>.05786</b>	<b>.00083</b>	<b>.00004</b>
Stddev	.00021	.01489	.00123	.00026	.00010	.00002
%RSD	238.51	320.48	315.17	.44613	11.884	43.401

#1	.00001	-.01938	-.00100	.05811	.00083	.00003
#2	-.00033	-.00497	.00135	.05759	.00093	.00006
#3	.00006	.01040	.00083	.05788	.00073	.00003

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass	None
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.27669</b>	<b>.00023</b>	<b>.00008</b>	<b>.00048</b>	<b>.00124</b>	<b>.00107</b>
Stddev	.00332	.00003	.00009	.00018	.00014	.00031
%RSD	1.2005	11.967	109.37	37.809	11.570	29.234

#1	.27423	.00023	-.00002	.00039	.00136	.00102
#2	.28047	.00021	.00016	.00068	.00108	.00078
#3	.27537	.00026	.00010	.00035	.00129	.00140

Check ?	None	Chk Pass	None	Chk Pass	None	None
High Limit						
Low Limit						

Sample Name: LB 180-122610/9-B      Acquired: 10/28/2014 6:32:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01596	-.00144	.08829	.00010	-.00052	149.34
Stddev	.00892	.00075	.00868	.00002	.00015	1.85
%RSD	55.931	52.411	9.8267	20.150	28.120	1.2418

#1	.00895	-.00151	.09160	.00010	-.00069	149.15
#2	.02600	-.00065	.09482	.00012	-.00042	151.28
#3	.01292	-.00216	.07845	.00008	-.00046	147.59

Check ?	None	None	None	None	None	None
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00084	-.00046	.00184	.02966	.00032
Stddev	.00033	.00038	.00050	.00211	.00540	.00015
%RSD	39.450	45.557	108.75	114.73	18.211	46.866

#1	.00059	.00048	-.00103	.00411	.02346	.00049
#2	.00122	.00080	-.00023	-.00005	.03335	.00028
#3	.00073	.00124	-.00012	.00145	.03216	.00020

Check ?	None	Chk Pass	None	Chk Pass	None	None
High Limit						
Low Limit						

Sample Name: LB 180-122610/9-B      Acquired: 10/28/2014 6:32:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00367	.00010	-.00327	.00015	.00266
Stddev	.00177	.00000	.00099	.00231	.00013
%RSD	48.233	2.6933	30.215	1502.0	5.0688

#1	.00568	.00010	-.00407	.00209	.00277
#2	.00298	.00010	-.00357	.00077	.00251
#3	.00235	.00010	-.00217	-.00240	.00269

Check ?	None	None	None	None	None
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2573.8	4298.9	60460.	11150.
Stddev	9.1	15.1	399.	143.
%RSD	.35433	.35070	.65980	1.2813

#1	2574.5	4291.4	60862.	11152.
#2	2582.5	4316.2	60064.	11005.
#3	2564.3	4288.9	60455.	11291.

Sample Name: LCS 180-122787/2-A      Acquired: 10/28/2014 6:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04948</b>	<b>1.9731</b>	<b>.49587</b>	<b>.99521</b>	<b>1.9906</b>	<b>.04988</b>
Stddev	.00017	.0133	.00410	.00612	.0023	.00026
%RSD	.33640	.67323	.82591	.61533	.11577	.52923

#1	.04929	1.9671	.49114	.98832	1.9881	.05008
#2	.04960	1.9883	.49823	1.0000	1.9927	.04997
#3	.04956	1.9638	.49823	.99725	1.9909	.04958

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.748</b>	<b>.04973</b>	<b>.49095</b>	<b>.19769</b>	<b>.24230</b>	<b>1.0102</b>
Stddev	.202	.00036	.00278	.00111	.00186	.0023
%RSD	.40526	.71937	.56630	.56100	.76589	.22703

#1	49.882	.04932	.48779	.19694	.24257	1.0114
#2	49.845	.04989	.49304	.19716	.24401	1.0075
#3	49.516	.04997	.49200	.19896	.24032	1.0116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122787/2-A      Acquired: 10/28/2014 6:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.782</b>	<b>1.0093</b>	<b>49.342</b>	<b>.46530</b>	<b>1.0253</b>	<b>51.938</b>
Stddev	.076	.0030	.337	.00322	.0056	.040
%RSD	.15274	.30016	.68197	.69241	.54346	.07727

#1	49.700	1.0060	49.620	.46724	1.0188	51.892
#2	49.795	1.0100	49.439	.46708	1.0287	51.957
#3	49.850	1.0119	48.968	.46158	1.0283	51.966

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.48737</b>	<b>.47759</b>	<b>.51156</b>	<b>.49295</b>	<b>9.9609</b>	<b>1.9344</b>
Stddev	.00140	.00218	.00483	.00289	.0309	.0133
%RSD	.28702	.45597	.94506	.58634	.31038	.68970

#1	.48578	.47510	.50600	.48972	9.9532	1.9190
#2	.48839	.47849	.51478	.49384	9.9949	1.9423
#3	.48796	.47917	.51391	.49530	9.9346	1.9418

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122787/2-A      Acquired: 10/28/2014 6:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.96686	.98210	.46621	.52330	.48210
Stddev	.01015	.00888	.00342	.00724	.00218
%RSD	1.0494	.90374	.73306	1.3834	.45296

#1	.97709	.98450	.46251	.52148	.47961
#2	.96669	.98953	.46687	.51714	.48368
#3	.95680	.97227	.46925	.53127	.48301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2503.0	4280.1	60429.	11103.
Stddev	7.7	18.9	221.	108.
%RSD	.30900	.44153	.36490	.97550

#1	2511.9	4300.1	60336.	11028.
#2	2498.0	4262.5	60680.	11055.
#3	2499.1	4277.8	60270.	11227.

Sample Name: LCSD 180-122787/3-A      Acquired: 10/28/2014 6:42:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05043	1.9828	.50023	1.0022	2.0035	.05035
Stddev	.00037	.0130	.00265	.0003	.0059	.00020
%RSD	.73979	.65687	.52943	.02628	.29673	.39184

#1	.05012	1.9774	.49724	1.0020	2.0066	.05031
#2	.05085	1.9733	.50115	1.0025	2.0073	.05056
#3	.05032	1.9976	.50229	1.0022	1.9967	.05017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.442	.04968	.49543	.20085	.24399	1.0415
Stddev	.177	.00010	.00106	.00068	.00078	.0021
%RSD	.35020	.19930	.21317	.33739	.32020	.20479

#1	50.299	.04971	.49447	.20075	.24315	1.0396
#2	50.639	.04976	.49656	.20157	.24469	1.0438
#3	50.387	.04957	.49525	.20023	.24414	1.0411

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCSD 180-122787/3-A      Acquired: 10/28/2014 6:42:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.480</b>	<b>1.0185</b>	<b>50.103</b>	<b>.47289</b>	<b>1.0341</b>	<b>52.531</b>
Stddev	.115	.0019	.129	.00196	.0028	.107
%RSD	.22711	.18161	.25651	.41390	.26818	.20378

#1	50.471	1.0200	50.013	.47141	1.0317	52.559
#2	50.599	1.0191	50.250	.47511	1.0335	52.621
#3	50.370	1.0164	50.046	.47216	1.0371	52.412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.49020</b>	<b>.47927</b>	<b>.51211</b>	<b>.49006</b>	<b>10.123</b>	<b>1.9451</b>
Stddev	.00084	.00221	.00132	.00185	.039	.0032
%RSD	.17097	.46012	.25850	.37801	.38986	.16372

#1	.48939	.47676	.51063	.48904	10.136	1.9414
#2	.49106	.48013	.51319	.48895	10.155	1.9473
#3	.49014	.48091	.51251	.49220	10.079	1.9465

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCSD 180-122787/3-A      Acquired: 10/28/2014 6:42:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.98061</b>	<b>.99333</b>	<b>.46557</b>	<b>.53062</b>	<b>.48686</b>
Stddev	.01015	.00422	.00182	.00075	.00025
%RSD	1.0355	.42502	.39152	.14195	.05231

#1	<b>.98547</b>	<b>.99143</b>	<b>.46377</b>	<b>.53149</b>	<b>.48657</b>
#2	<b>.98741</b>	<b>.99817</b>	<b>.46741</b>	<b>.53020</b>	<b>.48705</b>
#3	<b>.96894</b>	<b>.99039</b>	<b>.46552</b>	<b>.53017</b>	<b>.48696</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2501.9</b>	<b>4282.6</b>	<b>60520.</b>	<b>11076.</b>
Stddev	4.0	4.4	136.	43.
%RSD	.15937	.10328	.22518	.39233

#1	2502.1	4280.2	60568.	11103.
#2	2497.9	4279.9	60366.	11026.
#3	2505.9	4287.8	60625.	11099.

Sample Name: 180-37856-A-4-E      Acquired: 10/28/2014 6:46:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00042</b>	<b>1.4253</b>	<b>.00439</b>	<b>.37149</b>	<b>.00151</b>	<b>.00002</b>
Stddev	.00015	.0144	.00070	.00140	.00002	.00002
%RSD	36.537	1.0080	15.979	.37656	1.4716	88.566

#1	<b>-.00026</b>	<b>1.4417</b>	<b>.00504</b>	<b>.37172</b>	<b>.00154</b>	<b>.00004</b>
#2	<b>-.00057</b>	<b>1.4148</b>	<b>.00365</b>	<b>.36999</b>	<b>.00150</b>	<b>.00003</b>
#3	<b>-.00042</b>	<b>1.4194</b>	<b>.00446</b>	<b>.37277</b>	<b>.00150</b>	<b>.00000</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0248</b>	<b>.00053</b>	<b>.00097</b>	<b>.00396</b>	<b>.00199</b>	<b>.06527</b>
Stddev	.0047	.00014	.00016	.00015	.00025	.00143
%RSD	.46293	27.303	16.312	3.8607	12.616	2.1964

#1	<b>1.0295</b>	<b>.00040</b>	<b>.00102</b>	<b>.00403</b>	<b>.00212</b>	<b>.06595</b>
#2	<b>1.0201</b>	<b>.00068</b>	<b>.00110</b>	<b>.00379</b>	<b>.00215</b>	<b>.06362</b>
#3	<b>1.0248</b>	<b>.00050</b>	<b>.00080</b>	<b>.00406</b>	<b>.00170</b>	<b>.06623</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-E      Acquired: 10/28/2014 6:46:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.4016</b>	<b>-0.00045</b>	<b>.39558</b>	<b>.00699</b>	<b>.00097</b>	<b>146.95</b>
Stddev	.0281	.00038	.01696	.00004	.00017	.23
%RSD	.82501	85.078	4.2865	.56000	17.542	.15902

#1	<b>3.4160</b>	<b>-0.00081</b>	<b>.40284</b>	<b>.00703</b>	<b>.00112</b>	<b>147.17</b>
#2	<b>3.3693</b>	<b>-0.00005</b>	<b>.40770</b>	<b>.00696</b>	<b>.00101</b>	<b>146.71</b>
#3	<b>3.4196</b>	<b>-0.00047</b>	<b>.37620</b>	<b>.00697</b>	<b>.00079</b>	<b>146.97</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00179</b>	<b>.00055</b>	<b>.00199</b>	<b>.00176</b>	<b>.29978</b>	<b>.00095</b>
Stddev	.00013	.00158	.00073	.00130	.00544	.00022
%RSD	7.4789	290.17	36.649	73.705	1.8161	23.067

#1	<b>.00183</b>	<b>.00179</b>	<b>.00279</b>	<b>.00071</b>	<b>.29362</b>	<b>.00116</b>
#2	<b>.00191</b>	<b>.00108</b>	<b>.00135</b>	<b>.00321</b>	<b>.30394</b>	<b>.00073</b>
#3	<b>.00165</b>	<b>-0.00123</b>	<b>.00184</b>	<b>.00136</b>	<b>.30179</b>	<b>.00096</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-E      Acquired: 10/28/2014 6:46:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00715	.00228	-.00235	-.00046	.02849
Stddev	.00265	.00009	.00079	.00199	.00017
%RSD	37.086	3.8697	33.721	431.10	.60276

#1	.00987	.00236	-.00143	-.00071	.02832
#2	.00457	.00218	-.00276	-.00231	.02848
#3	.00700	.00229	-.00284	.00164	.02866

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2568.3	4297.5	60798.	11307.
Stddev	9.4	10.2	152.	48.
%RSD	.36755	.23787	.25045	.42803

#1	2568.9	4295.6	60653.	11270.
#2	2577.3	4308.6	60784.	11362.
#3	2558.5	4288.4	60957.	11290.

Sample Name: 180-37856-A-4-E SD@5      Acquired: 10/28/2014 6:52:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00019</b>	<b>.28408</b>	<b>.00113</b>	<b>.07358</b>	<b>.00032</b>	<b>.00000</b>
Stddev	.00016	.01298	.00115	.00038	.00011	.00006
%RSD	82.717	4.5685	101.91	.52280	34.301	1602.1

#1	<b>-.00035</b>	<b>.27698</b>	<b>.00039</b>	<b>.07326</b>	<b>.00021</b>	<b>.00000</b>
#2	<b>-.00003</b>	<b>.29905</b>	<b>.00055</b>	<b>.07400</b>	<b>.00043</b>	<b>.00007</b>
#3	<b>-.00019</b>	<b>.27619</b>	<b>.00246</b>	<b>.07347</b>	<b>.00033</b>	<b>-.00006</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.19789</b>	<b>.00022</b>	<b>.00003</b>	<b>.00081</b>	<b>.00096</b>	<b>.01243</b>
Stddev	.00188	.00002	.00013	.00013	.00044	.00358
%RSD	.94906	8.5325	398.52	15.814	46.152	28.847

#1	<b>.19724</b>	<b>.00025</b>	<b>.00008</b>	<b>.00090</b>	<b>.00135</b>	<b>.00980</b>
#2	<b>.19643</b>	<b>.00021</b>	<b>.00013</b>	<b>.00066</b>	<b>.00107</b>	<b>.01096</b>
#3	<b>.20001</b>	<b>.00021</b>	<b>-.00012</b>	<b>.00085</b>	<b>.00048</b>	<b>.01651</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-E SD@5      Acquired: 10/28/2014 6:52:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61312	-.00081	.10268	.00150	-.00026	29.416
Stddev	.01448	.00059	.01055	.00003	.00016	.037
%RSD	2.3613	73.252	10.280	1.8645	60.961	.12443

#1	.61366	-.00133	.09183	.00149	-.00009	29.412
#2	.62732	-.00092	.11291	.00148	-.00029	29.454
#3	.59838	-.00017	.10329	.00153	-.00040	29.381

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.00035	.00054	.00077	.05637	.00024
Stddev	.00024	.00076	.00112	.00113	.00096	.00008
%RSD	37.664	216.63	206.88	148.14	1.7070	35.116

#1	.00040	-.00122	-.00067	.00001	.05620	.00025
#2	.00087	-.00002	.00155	.00207	.05550	.00015
#3	.00062	.00019	.00075	.00021	.05740	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-E SD@5      Acquired: 10/28/2014 6:52:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00508	.00045	-.00091	-.00265	.00549
Stddev	.00180	.00014	.00042	.00302	.00012
%RSD	35.439	30.010	46.082	113.97	2.2635

#1	.00316	.00030	-.00098	-.00610	.00561
#2	.00673	.00047	-.00128	-.00045	.00536
#3	.00536	.00057	-.00046	-.00141	.00550

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2822.3	4547.0	64759.	11302.
Stddev	1.9	1.6	309.	73.
%RSD	.06641	.03410	.47696	.64550

#1	2820.2	4547.2	64417.	11374.
#2	2823.8	4545.3	64842.	11306.
#3	2823.0	4548.4	65018.	11228.

Sample Name: 180-37856-A-5-B      Acquired: 10/28/2014 6:57:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00013</b>	<b>-.00816</b>	<b>.00203</b>	<b>.12892</b>	<b>.02516</b>	<b>-.00001</b>
Stddev	.00025	.00957	.00118	.00073	.00016	.00007
%RSD	192.48	117.32	57.891	.56392	.63224	990.69

#1	<b>-.00033</b>	<b>-.01559</b>	<b>.00146</b>	<b>.12947</b>	<b>.02534</b>	<b>.00000</b>
#2	<b>.00015</b>	<b>.00264</b>	<b>.00126</b>	<b>.12809</b>	<b>.02508</b>	<b>-.00009</b>
#3	<b>-.00022</b>	<b>-.01153</b>	<b>.00339</b>	<b>.12919</b>	<b>.02505</b>	<b>.00006</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>75.530</b>	<b>.00174</b>	<b>.02207</b>	<b>.00118</b>	<b>.01038</b>	<b>.03328</b>
Stddev	.246	.00003	.00033	.00032	.00016	.00207
%RSD	.32522	1.7087	1.4750	26.646	1.5775	6.2327

#1	<b>75.679</b>	<b>.00177</b>	<b>.02242</b>	<b>.00109</b>	<b>.01019</b>	<b>.03367</b>
#2	<b>75.663</b>	<b>.00172</b>	<b>.02177</b>	<b>.00154</b>	<b>.01047</b>	<b>.03512</b>
#3	<b>75.246</b>	<b>.00172</b>	<b>.02202</b>	<b>.00093</b>	<b>.01049</b>	<b>.03103</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37856-A-5-B      Acquired: 10/28/2014 6:57:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9083	.00722	6.7140	.15154	.00007	145.01
Stddev	.0248	.00030	.0396	.00103	.00016	.14
%RSD	.50559	4.2121	.58925	.67683	229.02	.09978

#1	4.9003	.00742	6.7362	.15227	.00016	144.89
#2	4.9361	.00687	6.7375	.15198	.00017	145.17
#3	4.8884	.00737	6.6683	.15036	-.00012	144.99

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00310	-.00010	-.00051	.00226	1.9044	.00012
Stddev	.00046	.00090	.00035	.00234	.0098	.00090
%RSD	14.698	933.23	69.629	103.22	.51645	728.74

#1	.00270	-.00092	-.00013	.00428	1.9132	.00081
#2	.00300	-.00023	-.00083	.00280	1.9064	-.00090
#3	.00360	.00086	-.00057	-.00030	1.8938	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-5-B      Acquired: 10/28/2014 6:57:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33580	.00163	-.00374	.00089	.05609
Stddev	.00524	.00007	.00029	.00223	.00028
%RSD	1.5590	4.4244	7.7465	252.18	.50305

#1	.34006	.00155	-.00393	.00053	.05641
#2	.33738	.00167	-.00389	.00328	.05589
#3	.32995	.00168	-.00341	-.00115	.05598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2485.3	4211.2	59425.	11191.
Stddev	7.2	11.6	45.	101.
%RSD	.29129	.27623	.07528	.90056

#1	2477.2	4199.1	59411.	11140.
#2	2487.3	4212.2	59389.	11126.
#3	2491.3	4222.3	59475.	11307.

Sample Name: 180-37856-A-6-B      Acquired: 10/28/2014 7:02:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00695	.00143	.02426	.01858	-.00001
Stddev	.00010	.00892	.00074	.00031	.00025	.00001
%RSD	70.142	128.41	51.758	1.2891	1.3693	112.96

#1	.00017	-.00325	.00125	.02411	.01830	.00000
#2	.00021	.01331	.00225	.02404	.01880	-.00001
#3	.00003	.01079	.00080	.02462	.01864	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.364	.00205	.00432	.00094	.00272	.01224
Stddev	.050	.00014	.00006	.00014	.00010	.00138
%RSD	.17725	6.7013	1.4471	14.528	3.8518	11.286

#1	28.396	.00207	.00439	.00079	.00277	.01065
#2	28.389	.00218	.00427	.00105	.00279	.01309
#3	28.306	.00191	.00429	.00098	.00260	.01300

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-6-B      Acquired: 10/28/2014 7:02:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15429	.00187	.27221	.01674	-.00050	150.38
Stddev	.02957	.00025	.01833	.00005	.00004	.21
%RSD	19.166	13.358	6.7356	.28791	7.3444	.13817

#1	.15024	.00172	.27937	.01679	-.00046	150.62
#2	.12695	.00174	.28587	.01669	-.00051	150.25
#3	.18568	.00216	.25137	.01674	-.00053	150.27

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.00237	-.00121	-.00109	.06903	.00050
Stddev	.00057	.00104	.00081	.00272	.00342	.00073
%RSD	33.323	43.957	66.781	249.75	4.9515	147.64

#1	.00204	.00155	-.00058	-.00380	.07274	.00015
#2	.00204	.00354	-.00093	.00164	.06601	.00134
#3	.00105	.00201	-.00212	-.00111	.06833	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-6-B      Acquired: 10/28/2014 7:02:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02216	.00033	-.00142	-.00059	F 59.252
Stddev	.00133	.00012	.00129	.00265	.126
%RSD	6.0185	34.468	90.937	446.13	.21286

#1	.02233	.00040	.00007	-.00365	59.395
#2	.02340	.00020	-.00205	.00094	59.204
#3	.02075	.00040	-.00228	.00094	59.157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2525.8	4265.2	59943.	11049.
Stddev	7.5	26.9	33.	62.
%RSD	.29689	.62969	.05534	.56485

#1	2517.1	4234.7	59936.	10983.
#2	2529.3	4275.1	59979.	11059.
#3	2530.8	4285.6	59914.	11106.

Sample Name: 180-37856-A-7-B      Acquired: 10/28/2014 7:07:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00294	.00196	.01829	.00276	.00001
Stddev	.00010	.01589	.00127	.00014	.00004	.00004
%RSD	20.751	540.47	64.925	.77780	1.3265	774.77

#1	.00054	.01513	.00054	.01829	.00273	.00005
#2	.00036	.00872	.00299	.01815	.00280	-.00003
#3	.00049	-.01503	.00236	.01844	.00275	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.910	.00105	.00109	.00039	.00200	.00325
Stddev	.020	.00009	.00019	.00022	.00045	.00192
%RSD	.10947	8.7277	17.771	55.457	22.289	58.938

#1	17.889	.00096	.00087	.00016	.00149	.00385
#2	17.912	.00114	.00122	.00043	.00218	.00480
#3	17.928	.00105	.00118	.00059	.00233	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-7-B      Acquired: 10/28/2014 7:07:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09957	.00075	.16352	.04310	-.00070	147.30
Stddev	.01223	.00044	.01085	.00007	.00008	.15
%RSD	12.281	58.434	6.6369	.15536	11.918	.10314

#1	.09146	.00123	.15271	.04314	-.00079	147.13
#2	.09363	.00067	.17441	.04302	-.00063	147.39
#3	.11364	.00036	.16343	.04314	-.00067	147.39

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00149	.00282	-.00093	.00114	.04492	.00047
Stddev	.00033	.00037	.00039	.00081	.00360	.00025
%RSD	22.320	13.241	41.746	71.181	8.0034	53.867

#1	.00161	.00246	-.00123	.00021	.04212	.00053
#2	.00175	.00321	-.00107	.00151	.04367	.00070
#3	.00112	.00279	-.00049	.00171	.04898	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-7-B      Acquired: 10/28/2014 7:07:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01683	.00014	-.00248	.00084	F 67.452
Stddev	.00038	.00011	.00127	.00230	.459
%RSD	2.2657	82.139	51.035	275.09	.68030

#1	.01727	.00025	-.00163	-.00182	67.310
#2	.01660	.00002	-.00188	.00219	67.965
#3	.01663	.00014	-.00394	.00214	67.080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2561.7	4310.5	60149.	11082.
Stddev	15.5	31.0	181.	31.
%RSD	.60475	.71938	.30141	.28268

#1	2546.2	4285.2	59941.	11048.
#2	2561.6	4301.2	60272.	11110.
#3	2577.2	4345.1	60235.	11089.



Sample Name: CCV 1369837      Acquired: 10/28/2014 7:12:50      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0503</b>	<b>25.314</b>	<b>.52485</b>	<b>2.0848</b>	<b>2.0234</b>	<b>2.0104</b>
Stddev	.0012	.058	.00188	.0022	.0021	.0003
%RSD	.11773	.22803	.35789	.10752	.10255	.01532

#1	1.0506	25.347	.52689	2.0872	2.0258	2.0106
#2	1.0489	25.248	.52319	2.0843	2.0221	2.0106
#3	1.0514	25.348	.52447	2.0828	2.0222	2.0101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>51.168</b>	<b>.51691</b>	<b>2.0989</b>	<b>2.0231</b>	<b>1.9194</b>	<b>25.557</b>
Stddev	.125	.00046	.0032	.0087	.0168	.052
%RSD	.24354	.08897	.15129	.42825	.87290	.20521

#1	51.239	.51716	2.0992	2.0195	1.9256	25.497
#2	51.024	.51719	2.0955	2.0330	1.9004	25.582
#3	51.241	.51638	2.1018	2.0168	1.9321	25.593

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 7:12:50      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	127.31	2.0209	50.517	1.8741	1.9930	130.11
Stddev	.35	.0032	.011	.0114	.0003	.34
%RSD	.27557	.15795	.02147	.60921	.01353	.26068

#1	127.60	2.0243	50.524	1.8783	1.9929	130.45
#2	126.92	2.0180	50.505	1.8611	1.9928	129.77
#3	127.41	2.0205	50.522	1.8827	1.9933	130.11

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0850	.51460	.50968	.52127	2.0546	1.9404
Stddev	.0023	.00252	.00136	.00299	.0199	.0040
%RSD	.10899	.48912	.26698	.57381	.96600	.20464

#1	2.0845	.51435	.50981	.52000	2.0713	1.9446
#2	2.0830	.51221	.50825	.52469	2.0326	1.9367
#3	2.0875	.51723	.51097	.51913	2.0597	1.9400

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 7:12:50      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9676	1.9495	.98433	2.1617	1.9951
Stddev	.0071	.0142	.00229	.0193	.0014
%RSD	.36135	.72611	.23219	.89199	.07271

#1	1.9630	1.9520	.98252	2.1578	1.9939
#2	1.9640	1.9343	.98357	2.1826	1.9946
#3	1.9758	1.9623	.98690	2.1446	1.9967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2399.4	4355.4	60417.	11202.
Stddev	4.3	2.1	150.	63.
%RSD	.17786	.04886	.24837	.56638

#1	2400.4	4353.2	60455.	11193.
#2	2403.1	4357.4	60252.	11270.
#3	2394.7	4355.6	60545.	11144.

Sample Name: CCB2      Acquired: 10/28/2014 7:17:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00006</b>	<b>-.00549</b>	<b>.00210</b>	<b>.00035</b>	<b>.00004</b>	<b>.00002</b>
Stddev	.00013	.00526	.00111	.00038	.00005	.00004
%RSD	223.32	95.775	53.064	108.95	140.54	168.91

#1	<b>-.00018</b>	<b>-.00860</b>	<b>.00309</b>	<b>.00035</b>	<b>.00005</b>	<b>.00006</b>
#2	<b>-.00008</b>	<b>-.00845</b>	<b>.00089</b>	<b>.00074</b>	<b>.00008</b>	<b>-.00002</b>
#3	<b>.00008</b>	<b>.00058</b>	<b>.00231</b>	<b>-.00003</b>	<b>-.00002</b>	<b>.00003</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.01022</b>	<b>-.00006</b>	<b>.00004</b>	<b>.00015</b>	<b>.00014</b>	<b>.00205</b>
Stddev	.00287	.00004	.00017	.00004	.00038	.00143
%RSD	28.049	58.957	425.91	28.702	263.42	69.759

#1	<b>-.01217</b>	<b>-.00002</b>	<b>-.00013</b>	<b>.00017</b>	<b>.00051</b>	<b>.00368</b>
#2	<b>-.00693</b>	<b>-.00007</b>	<b>.00021</b>	<b>.00010</b>	<b>-.00024</b>	<b>.00147</b>
#3	<b>-.01157</b>	<b>-.00010</b>	<b>.00005</b>	<b>.00019</b>	<b>.00016</b>	<b>.00101</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB2      Acquired: 10/28/2014 7:17:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00860	-.00012	-.00016	.00006	.00156	.01690
Stddev	.00550	.00034	.01178	.00003	.00020	.00659
%RSD	63.953	280.12	7302.2	47.119	12.510	38.980

#1	.00712	.00001	.01097	.00005	.00176	.02298
#2	.00399	.00014	.00104	.00010	.00156	.01783
#3	.01468	-.00051	-.01250	.00004	.00137	.00990

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00138	.00040	.00066	.00326	-.00040
Stddev	.00006	.00004	.00151	.00141	.00134	.00030
%RSD	56.848	3.0752	378.54	213.76	41.139	73.965

#1	.00008	.00137	.00077	-.00074	.00441	-.00075
#2	.00016	.00134	.00169	.00063	.00179	-.00026
#3	.00005	.00143	-.00126	.00209	.00358	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB2      Acquired: 10/28/2014 7:17:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00653	.00006	.00008	-.00125	-.00003
Stddev	.00223	.00010	.00102	.00073	.00006
%RSD	34.119	163.00	1239.2	58.266	210.79

#1	.00416	.00011	-.00026	-.00043	-.00009
#2	.00857	-.00005	.00123	-.00149	.00003
#3	.00686	.00012	-.00072	-.00183	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.6	4652.4	66065.	11266.
Stddev	2.5	8.2	122.	44.
%RSD	.08291	.17607	.18502	.39311

#1	2956.1	4643.2	65945.	11301.
#2	2958.8	4654.9	66189.	11216.
#3	2960.9	4659.0	66062.	11281.

Sample Name: 180-37856-A-8-B      Acquired: 10/28/2014 7:22:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.01415	.00043	.01804	.00300	.00001
Stddev	.00006	.02103	.00090	.00031	.00008	.00002
%RSD	69.932	148.61	209.05	1.7266	2.5070	326.52

#1	.00010	-.00335	-.00061	.01836	.00294	.00003
#2	.00002	-.00071	.00094	.01804	.00297	-.00001
#3	.00013	-.03838	.00096	.01774	.00308	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.648	.00379	.00137	.00018	.00218	.00397
Stddev	.015	.00004	.00026	.00014	.00097	.00053
%RSD	.11619	1.0079	18.782	75.058	44.765	13.396

#1	12.664	.00378	.00133	.00034	.00111	.00458
#2	12.637	.00376	.00114	.00013	.00239	.00373
#3	12.641	.00383	.00165	.00008	.00302	.00360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-8-B      Acquired: 10/28/2014 7:22:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09900	-.00071	.14923	.03548	-.00015	142.46
Stddev	.00603	.00052	.01191	.00009	.00031	.37
%RSD	6.0882	72.972	7.9801	.24412	209.84	.26221

#1	.09297	-.00066	.13605	.03553	.00020	142.52
#2	.09900	-.00022	.15241	.03538	-.00040	142.80
#3	.10503	-.00126	.15923	.03553	-.00024	142.06

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00210	.00550	-.00058	.00090	.04168	.00121
Stddev	.00033	.00072	.00129	.00310	.00695	.00074
%RSD	15.845	13.050	221.50	345.30	16.674	60.711

#1	.00188	.00632	-.00120	.00093	.04604	.00170
#2	.00249	.00520	.00090	-.00222	.03366	.00157
#3	.00194	.00498	-.00145	.00397	.04533	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37856-A-8-B      Acquired: 10/28/2014 7:22:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01176	.00015	-.00190	-.00042	F 70.258
Stddev	.00286	.00014	.00084	.00264	.412
%RSD	24.270	93.044	44.185	633.07	.58683

#1	.01219	.00014	-.00265	.00081	70.319
#2	.00872	.00002	-.00208	.00138	69.819
#3	.01439	.00030	-.00099	-.00344	70.637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.5	4297.6	60031.	11156.
Stddev	8.2	11.0	203.	39.
%RSD	.32115	.25691	.33866	.35191

#1	2552.2	4287.8	59946.	11111.
#2	2558.1	4295.4	60263.	11181.
#3	2568.4	4309.6	59885.	11177.

Sample Name: 180-37856-A-9-C      Acquired: 10/28/2014 7:28:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00749	.00267	.02330	.00213	.00003
Stddev	.00018	.01520	.00033	.00032	.00009	.00004
%RSD	109.24	202.92	12.225	1.3824	4.0605	129.03

#1	.00025	.01004	.00300	.02367	.00204	-.00002
#2	.00028	-.01694	.00268	.02311	.00214	.00006
#3	-.00004	-.01557	.00234	.02312	.00222	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.6291	.00520	.00100	.00002	.00214	.00266
Stddev	.0113	.00014	.00022	.00025	.00027	.00088
%RSD	.16988	2.7141	21.656	1315.7	12.685	33.113

#1	6.6178	.00519	.00076	-.00021	.00244	.00196
#2	6.6293	.00506	.00106	-.00003	.00191	.00365
#3	6.6403	.00534	.00118	.00029	.00208	.00238

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-9-C      Acquired: 10/28/2014 7:28:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09729	.00058	.10978	.01013	-.00029	148.22
Stddev	.02547	.00081	.01832	.00007	.00041	.36
%RSD	26.183	140.44	16.690	.67955	143.47	.24590

#1	.11140	.00009	.12789	.01005	.00017	148.05
#2	.06788	.00013	.09125	.01018	-.00039	148.64
#3	.11259	.00151	.11020	.01015	-.00063	147.98

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00237	.01449	.00069	.00245	.04989	.00087
Stddev	.00027	.00063	.00087	.00147	.00557	.00041
%RSD	11.252	4.3274	127.27	60.041	11.167	47.299

#1	.00212	.01389	-.00032	.00413	.05135	.00074
#2	.00234	.01444	.00124	.00141	.04373	.00132
#3	.00265	.01514	.00115	.00180	.05458	.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-9-C      Acquired: 10/28/2014 7:28:06      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00790	.00009	-.00223	-.00161	F 76.267
Stddev	.00270	.00007	.00183	.00237	.291
%RSD	34.209	77.031	82.050	147.16	.38116

#1	.01039	.00008	-.00058	.00005	76.543
#2	.00828	.00002	-.00420	-.00433	76.294
#3	.00502	.00016	-.00191	-.00056	75.964

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2563.4	4323.9	60475.	11114.
Stddev	12.8	17.9	128.	19.
%RSD	.49768	.41385	.21215	.17158

#1	2555.1	4309.6	60592.	11133.
#2	2557.0	4318.0	60496.	11113.
#3	2578.1	4343.9	60338.	11095.

Sample Name: 180-37944-A-1-C      Acquired: 10/28/2014 7:33:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00798	.00101	.08625	.00284	.00003
Stddev	.00028	.02104	.00149	.00067	.00013	.00005
%RSD	106.57	263.64	146.93	.77183	4.5599	162.74

#1	.00051	.01172	.00094	.08695	.00289	-.00002
#2	.00030	.02691	-.00044	.08616	.00269	.00009
#3	-.00004	-.01468	.00254	.08563	.00293	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2137	.00018	.01494	.00042	.00409	.05317
Stddev	.0073	.00008	.00015	.00026	.00025	.00312
%RSD	.60067	43.829	1.0168	62.105	6.0971	5.8596

#1	1.2053	.00027	.01487	.00050	.00380	.04974
#2	1.2174	.00014	.01512	.00013	.00420	.05581
#3	1.2184	.00013	.01484	.00063	.00426	.05398

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37944-A-1-C      Acquired: 10/28/2014 7:33:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05101	.00075	.15376	.01566	-.00031	149.99
Stddev	.02786	.00035	.02290	.00010	.00012	.19
%RSD	54.625	47.133	14.894	.60731	37.501	.12804

#1	.06131	.00035	.16796	.01555	-.00018	150.18
#2	.07225	.00088	.12734	.01573	-.00034	149.98
#3	.01946	.00102	.16598	.01569	-.00041	149.80

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	-.00105	.00000	.00117	.03564	.00012
Stddev	.00015	.00226	.00091	.00121	.00564	.00011
%RSD	10.469	215.02	106150.	103.44	15.817	94.733

#1	.00156	.00105	-.00093	.00147	.03537	.00024
#2	.00149	-.00344	.00088	-.00016	.03013	.00011
#3	.00127	-.00076	.00006	.00220	.04140	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37944-A-1-C      Acquired: 10/28/2014 7:33:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00476	.00015	-.00304	.00172	.02472
Stddev	.00471	.00011	.00017	.00098	.00021
%RSD	98.873	73.556	5.5183	57.071	.83731

#1	.00149	.00014	-.00313	.00284	.02474
#2	.00264	.00004	-.00284	.00137	.02492
#3	.01016	.00026	-.00314	.00097	.02451

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.2	4330.9	60883.	11297.
Stddev	3.4	4.9	153.	116.
%RSD	.13248	.11252	.25133	1.0263

#1	2583.5	4325.4	61057.	11419.
#2	2585.1	4334.6	60820.	11188.
#3	2590.1	4332.7	60771.	11284.

Sample Name: 180-37945-A-1-C      Acquired: 10/28/2014 7:38:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.01057	.00302	.05992	.12866	.00005
Stddev	.00030	.01889	.00210	.00040	.00034	.00006
%RSD	143.99	178.81	69.560	.66971	.26216	114.43

#1	.00026	-.00882	.00072	.06032	.12827	-.00000
#2	-.00011	.02892	.00349	.05992	.12886	.00012
#3	.00047	.01160	.00484	.05952	.12885	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.111	.00025	.00107	.00044	.00242	.00461
Stddev	.155	.00014	.00014	.00032	.00021	.00137
%RSD	.23116	57.706	13.248	72.804	8.6701	29.627

#1	67.277	.00008	.00091	.00025	.00218	.00613
#2	66.969	.00031	.00114	.00081	.00249	.00422
#3	67.086	.00034	.00117	.00026	.00259	.00349

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37945-A-1-C      Acquired: 10/28/2014 7:38:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26386</b>	<b>.00155</b>	<b>5.6022</b>	<b>.68234</b>	<b>-.00041</b>	<b>148.77</b>
Stddev	.00463	.00095	.0058	.00362	.00003	.10
%RSD	1.7565	60.866	.10297	.53093	8.2098	.06871

#1	<b>.26464</b>	<b>.00078</b>	<b>5.6077</b>	<b>.68645</b>	<b>-.00045</b>	<b>148.68</b>
#2	<b>.25888</b>	<b>.00261</b>	<b>5.5962</b>	<b>.68094</b>	<b>-.00038</b>	<b>148.88</b>
#3	<b>.26805</b>	<b>.00127</b>	<b>5.6027</b>	<b>.67962</b>	<b>-.00040</b>	<b>148.74</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00299</b>	<b>-.00247</b>	<b>-.00014</b>	<b>.00046</b>	<b>.40013</b>	<b>-.00047</b>
Stddev	.00041	.00090	.00078	.00163	.00962	.00045
%RSD	13.644	36.372	580.02	357.27	2.4037	97.107

#1	<b>.00285</b>	<b>-.00143</b>	<b>.00053</b>	<b>-.00098</b>	<b>.40906</b>	<b>-.00074</b>
#2	<b>.00268</b>	<b>-.00304</b>	<b>-.00100</b>	<b>.00012</b>	<b>.40137</b>	<b>.00006</b>
#3	<b>.00345</b>	<b>-.00293</b>	<b>.00006</b>	<b>.00222</b>	<b>.38995</b>	<b>-.00073</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37945-A-1-C      Acquired: 10/28/2014 7:38:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07505	.00027	-.00184	-.00106	.00225
Stddev	.00136	.00003	.00013	.00170	.00014
%RSD	1.8097	10.390	6.9662	160.34	6.3591

#1	.07414	.00028	-.00188	-.00192	.00241
#2	.07439	.00024	-.00194	-.00216	.00223
#3	.07661	.00029	-.00169	.00090	.00213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2491.5	4243.8	59542.	11123.
Stddev	5.8	13.9	46.	66.
%RSD	.23170	.32639	.07684	.59094

#1	2489.8	4229.8	59529.	11049.
#2	2486.8	4244.1	59504.	11145.
#3	2498.0	4257.4	59592.	11174.

Sample Name: MB 180-122795/1-A      Acquired: 10/28/2014 7:43:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00016</b>	<b>-.02069</b>	<b>-.00023</b>	<b>-.00071</b>	<b>.00004</b>	<b>.00003</b>
Stddev	.00033	.01111	.00240	.00039	.00004	.00001
%RSD	210.37	53.726	1041.1	55.542	90.344	35.050

#1	<b>-.00040</b>	<b>-.00785</b>	<b>.00126</b>	<b>-.00070</b>	<b>.00009</b>	<b>.00004</b>
#2	<b>-.00029</b>	<b>-.02716</b>	<b>.00105</b>	<b>-.00111</b>	<b>.00002</b>	<b>.00002</b>
#3	<b>.00022</b>	<b>-.02705</b>	<b>-.00300</b>	<b>-.00032</b>	<b>.00002</b>	<b>.00002</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00393</b>	<b>.00014</b>	<b>-.00015</b>	<b>.00050</b>	<b>.00031</b>	<b>.00148</b>
Stddev	.00203	.00006	.00019	.00034	.00012	.00082
%RSD	51.612	41.103	130.10	67.279	39.467	55.299

#1	<b>-.00590</b>	<b>.00016</b>	<b>-.00010</b>	<b>.00084</b>	<b>.00021</b>	<b>.00094</b>
#2	<b>-.00185</b>	<b>.00018</b>	<b>.00001</b>	<b>.00017</b>	<b>.00044</b>	<b>.00241</b>
#3	<b>-.00403</b>	<b>.00007</b>	<b>-.00036</b>	<b>.00050</b>	<b>.00027</b>	<b>.00107</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122795/1-A      Acquired: 10/28/2014 7:43:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.04715</b>	<b>-.00031</b>	<b>.01275</b>	<b>-.00000</b>	<b>-.00069</b>	<b>.02998</b>
Stddev	.03626	.00066	.01211	.00000	.00014	.00396
%RSD	76.908	211.41	95.004	103.86	20.573	13.222

#1	<b>-.00897</b>	<b>.00045</b>	<b>.01912</b>	<b>.00000</b>	<b>-.00056</b>	<b>.02767</b>
#2	<b>-.05135</b>	<b>-.00068</b>	<b>-.00122</b>	<b>-.00000</b>	<b>-.00085</b>	<b>.02772</b>
#3	<b>-.08113</b>	<b>-.00072</b>	<b>.02034</b>	<b>-.00001</b>	<b>-.00068</b>	<b>.03456</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00020</b>	<b>.00064</b>	<b>.00012</b>	<b>.00178</b>	<b>.00254</b>	<b>-.00009</b>
Stddev	.00030	.00035	.00214	.00322	.00298	.00035
%RSD	150.70	55.431	1757.7	181.14	117.33	385.38

#1	<b>.00036</b>	<b>.00101</b>	<b>-.00128</b>	<b>.00253</b>	<b>.00522</b>	<b>-.00004</b>
#2	<b>-.00015</b>	<b>.00060</b>	<b>.00259</b>	<b>-.00175</b>	<b>-.00067</b>	<b>.00024</b>
#3	<b>.00040</b>	<b>.00031</b>	<b>-.00094</b>	<b>.00456</b>	<b>.00307</b>	<b>-.00047</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122795/1-A      Acquired: 10/28/2014 7:43:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00279	.00002	-.00110	.00052	.00116
Stddev	.00075	.00009	.00073	.00299	.00007
%RSD	26.989	466.89	66.286	580.97	5.9756

#1	.00234	-.00006	-.00121	-.00091	.00122
#2	.00365	.00012	-.00032	.00395	.00117
#3	.00237	.00000	-.00176	-.00150	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2924.1	4571.3	65979.	11215.
Stddev	8.7	5.8	31.	51.
%RSD	.29659	.12786	.04673	.45905

#1	2928.2	4573.8	65945.	11207.
#2	2929.9	4575.6	66006.	11271.
#3	2914.1	4564.7	65985.	11169.

Sample Name: LCS 180-122795/2-A      Acquired: 10/28/2014 7:48:43      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05052	1.9842	.49983	1.0018	2.0067	.04990
Stddev	.00010	.0076	.00215	.0022	.0060	.00024
%RSD	.19793	.38396	.42974	.21783	.29928	.47654

#1	.05043	1.9884	.50230	1.0042	2.0134	.05013
#2	.05051	1.9754	.49838	1.0015	2.0051	.04992
#3	.05063	1.9888	.49882	.99985	2.0018	.04966

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.601	.04997	.49389	.20073	.24146	1.0150
Stddev	.239	.00009	.00096	.00041	.00116	.0027
%RSD	.47218	.17330	.19499	.20537	.48029	.26195

#1	50.619	.04989	.49463	.20120	.24259	1.0180
#2	50.831	.05006	.49424	.20061	.24153	1.0133
#3	50.354	.04995	.49280	.20040	.24027	1.0135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122795/2-A      Acquired: 10/28/2014 7:48:43      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.955</b>	<b>1.0177</b>	<b>50.035</b>	<b>.46666</b>	<b>1.0373</b>	<b>53.003</b>
Stddev	.183	.0045	.244	.00233	.0016	.170
%RSD	.35847	.43899	.48777	.49897	.15716	.32156

#1	50.990	1.0227	50.032	.46803	1.0390	53.112
#2	51.118	1.0160	50.280	.46798	1.0372	53.090
#3	50.758	1.0143	49.792	.46397	1.0357	52.806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.49105</b>	<b>.47878</b>	<b>.51501</b>	<b>.49393</b>	<b>10.130</b>	<b>1.9530</b>
Stddev	.00107	.00239	.00343	.00269	.033	.0028
%RSD	.21808	.49841	.66526	.54386	.32245	.14121

#1	.49213	.48116	.51894	.49633	10.106	1.9504
#2	.49103	.47879	.51340	.49103	10.167	1.9559
#3	.48998	.47639	.51267	.49443	10.117	1.9527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122795/2-A      Acquired: 10/28/2014 7:48:43      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.96302</b>	<b>.99233</b>	<b>.46636</b>	<b>.52965</b>	<b>.48567</b>
Stddev	.00597	.00565	.00177	.00388	.00124
%RSD	.61972	.56890	.38031	.73278	.25529

#1	<b>.96499</b>	<b>.99554</b>	<b>.46817</b>	<b>.53119</b>	<b>.48426</b>
#2	<b>.96776</b>	<b>.99564</b>	<b>.46629</b>	<b>.52524</b>	<b>.48657</b>
#3	<b>.95632</b>	<b>.98581</b>	<b>.46463</b>	<b>.53253</b>	<b>.48619</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2506.7</b>	<b>4286.6</b>	<b>60515.</b>	<b>11159.</b>
Stddev	10.1	12.3	168.	61.
%RSD	.40374	.28722	.27705	.54309

#1	2496.1	4273.1	60643.	11146.
#2	2507.7	4289.5	60325.	11106.
#3	2516.3	4297.2	60577.	11225.



Sample Name: LCSD 180-122795/3-A      Acquired: 10/28/2014 7:53:30      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05006	1.9875	.50316	1.0003	1.9995	.04981
Stddev	.00018	.0180	.00355	.0064	.0058	.00004
%RSD	.35368	.90591	.70514	.63679	.28943	.07699

#1	.04999	1.9759	.49988	.99394	1.9962	.04981
#2	.04994	1.9784	.50266	1.0003	1.9962	.04978
#3	.05027	2.0082	.50692	1.0067	2.0062	.04985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.310	.04989	.49600	.20083	.24223	1.0185
Stddev	.114	.00020	.00170	.00205	.00090	.0017
%RSD	.22648	.39183	.34301	1.0186	.37351	.16389

#1	50.192	.04988	.49623	.19908	.24126	1.0175
#2	50.319	.04970	.49420	.20308	.24235	1.0205
#3	50.419	.05009	.49758	.20032	.24306	1.0177

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCSD 180-122795/3-A      Acquired: 10/28/2014 7:53:30      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.633</b>	<b>1.0204</b>	<b>49.642</b>	<b>.46778</b>	<b>1.0452</b>	<b>52.669</b>
Stddev	.264	.0047	.045	.00081	.0075	.237
%RSD	.52046	.45983	.09135	.17224	.71540	.44957

#1	50.409	1.0169	49.694	.46714	1.0375	52.468
#2	50.567	1.0186	49.620	.46868	1.0458	52.608
#3	50.924	1.0257	49.612	.46752	1.0524	52.930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.49246</b>	<b>.47845</b>	<b>.51629</b>	<b>.49729</b>	<b>10.129</b>	<b>1.9507</b>
Stddev	.00242	.00322	.00312	.00143	.038	.0079
%RSD	.49208	.67326	.60478	.28669	.37074	.40684

#1	.49302	.47473	.51298	.49723	10.096	1.9450
#2	.48981	.48017	.51669	.49589	10.121	1.9473
#3	.49456	.48044	.51919	.49874	10.170	1.9598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCSD 180-122795/3-A      Acquired: 10/28/2014 7:53:30      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.95801	.99595	.46551	.53045	.48807
Stddev	.00852	.00168	.00173	.00162	.00071
%RSD	.88984	.16912	.37057	.30450	.14637

#1	.96109	.99415	.46398	.53044	.48784
#2	.96456	.99749	.46517	.53206	.48749
#3	.94837	.99621	.46738	.52883	.48887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2483.7	4238.1	60138.	11062.
Stddev	6.5	16.8	201.	14.
%RSD	.25971	.39718	.33368	.12578

#1	2483.0	4249.3	60192.	11053.
#2	2490.4	4246.2	59916.	11054.
#3	2477.6	4218.7	60307.	11078.

Sample Name: 180-38046-A-2-B      Acquired: 10/28/2014 7:58:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00009</b>	<b>.12103</b>	<b>.01142</b>	<b>F 27.663</b>	<b>.03842</b>	<b>.00004</b>
Stddev	.00017	.02289	.00206	.028	.00020	.00004
%RSD	178.06	18.911	18.005	.09964	.51013	81.961
#1	.00007	.13164	.01224	27.695	.03855	.00007
#2	-.00009	.09476	.00908	27.643	.03819	.00000
#3	-.00026	.13668	.01295	27.651	.03851	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				25.000		
Low Limit				-.20000		

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>16.315</b>	<b>.00186</b>	<b>.00536</b>	<b>.00715</b>	<b>.55718</b>	<b>4.6588</b>
Stddev	.002	.00002	.00027	.00040	.00202	.0086
%RSD	.01242	.82359	5.0749	5.6179	.36314	.18342
#1	16.314	.00185	.00567	.00699	.55718	4.6498
#2	16.313	.00185	.00526	.00761	.55921	4.6668
#3	16.317	.00188	.00516	.00686	.55516	4.6598
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38046-A-2-B      Acquired: 10/28/2014 7:58:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>13.697</b>	<b>.01539</b>	<b>11.418</b>	<b>.31881</b>	<b>.05848</b>	<b>211.54</b>
Stddev	.043	.00031	.024	.00165	.00013	1.41
%RSD	.31703	2.0207	.21252	.51898	.22569	.66726

#1	<b>13.735</b>	<b>.01569</b>	<b>11.434</b>	<b>.31913</b>	<b>.05863</b>	<b>210.86</b>
#2	<b>13.707</b>	<b>.01507</b>	<b>11.429</b>	<b>.32028</b>	<b>.05841</b>	<b>210.60</b>
#3	<b>13.650</b>	<b>.01542</b>	<b>11.390</b>	<b>.31702</b>	<b>.05839</b>	<b>213.16</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.02896</b>	<b>1.1461</b>	<b>.00679</b>	<b>.00857</b>	<b>.57669</b>	<b>.00695</b>
Stddev	.00047	.0022	.00062	.00255	.00612	.00062
%RSD	1.6299	.18743	9.1775	29.765	1.0613	8.8821

#1	<b>.02858</b>	<b>1.1481</b>	<b>.00690</b>	<b>.01151</b>	<b>.57814</b>	<b>.00652</b>
#2	<b>.02949</b>	<b>1.1438</b>	<b>.00611</b>	<b>.00686</b>	<b>.56998</b>	<b>.00765</b>
#3	<b>.02882</b>	<b>1.1464</b>	<b>.00734</b>	<b>.00735</b>	<b>.58196</b>	<b>.00667</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38046-A-2-B      Acquired: 10/28/2014 7:58:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.21213</b>	<b>.01553</b>	<b>-.00465</b>	<b>.00621</b>	<b>1.6623</b>
Stddev	.00142	.00015	.00084	.00346	.0023
%RSD	.66965	.98795	17.961	55.778	.13746

#1	.21167	.01553	-.00395	.00958	1.6629
#2	.21372	.01538	-.00444	.00638	1.6598
#3	.21099	.01569	-.00557	.00266	1.6642

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2454.2</b>	<b>4190.0</b>	<b>58377.</b>	<b>10807.</b>
Stddev	5.0	11.3	222.	40.
%RSD	.20240	.27048	.38081	.36666

#1	2448.8	4177.7	58181.	10770.
#2	2455.2	4192.4	58619.	10803.
#3	2458.5	4200.0	58330.	10848.

Sample Name: 180-37946-A-1-B      Acquired: 10/28/2014 8:03:26      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00444	.00046	.07628	.00046	.00006
Stddev	.00046	.00701	.00085	.00230	.00018	.00003
%RSD	367.70	157.91	183.22	3.0121	39.535	49.409

#1	.00063	-.00250	.00007	.07852	.00063	.00010
#2	.00002	.01152	.00144	.07640	.00048	.00004
#3	-.00028	.00431	-.00012	.07393	.00027	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4403	.00014	-.00020	.00025	.00324	.00685
Stddev	.0108	.00004	.00021	.00035	.00018	.00138
%RSD	.74767	30.912	105.94	142.45	5.4267	20.182

#1	1.4496	.00016	-.00028	.00040	.00308	.00533
#2	1.4285	.00009	-.00036	-.00016	.00322	.00804
#3	1.4427	.00016	.00004	.00049	.00343	.00717

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37946-A-1-B      Acquired: 10/28/2014 8:03:26      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16616	.00068	4.5876	.00066	.00036	7.9176
Stddev	.01999	.00015	.0334	.00002	.00010	.0198
%RSD	12.031	22.604	.72779	3.6448	28.601	.24994

#1	.16838	.00051	4.6035	.00063	.00027	7.9350
#2	.18494	.00075	4.5492	.00067	.00047	7.8961
#3	.14515	.00080	4.6100	.00067	.00035	7.9217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00160	-.00015	.00111	.45539	.00024
Stddev	.00009	.00045	.00107	.00132	.00592	.00023
%RSD	12.887	28.286	730.72	118.27	1.3008	93.773

#1	.00059	.00151	-.00041	.00116	.45009	.00028
#2	.00070	.00120	.00103	.00241	.45430	.00045
#3	.00076	.00209	-.00106	-.00023	.46179	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37946-A-1-B      Acquired: 10/28/2014 8:03:26      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00551	.00020	-.00197	.00148	.00609
Stddev	.00308	.00006	.00156	.00154	.00009
%RSD	55.852	28.820	79.163	103.96	1.4291

#1	.00820	.00026	-.00298	.00320	.00603
#2	.00215	.00014	-.00277	.00023	.00619
#3	.00617	.00020	-.00017	.00102	.00606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2852.2	4525.1	64610.	11441.
Stddev	3.9	11.9	64.	105.
%RSD	.13797	.26339	.09972	.91580

#1	2851.6	4521.1	64542.	11381.
#2	2848.6	4515.7	64618.	11562.
#3	2856.4	4538.5	64670.	11380.

Sample Name: 180-37946-A-1-B SD@5      Acquired: 10/28/2014 8:08:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.02015	.00079	.01934	.00002	-.00001
Stddev	.00030	.00630	.00203	.00032	.00005	.00004
%RSD	304.97	31.267	256.57	1.6453	246.47	305.47

#1	.00045	.01556	-.00120	.01964	.00006	-.00003
#2	-.00006	.01756	.00286	.01938	-.00003	-.00004
#3	-.00009	.02734	.00071	.01901	.00003	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27403	-.00005	-.00026	.00010	.00101	.00670
Stddev	.00229	.00005	.00009	.00015	.00059	.00192
%RSD	.83738	107.59	36.544	147.96	58.322	28.612

#1	.27566	.00001	-.00021	-.00006	.00137	.00861
#2	.27141	-.00007	-.00020	.00012	.00033	.00671
#3	.27503	-.00008	-.00037	.00023	.00131	.00478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37946-A-1-B SD@5      Acquired: 10/28/2014 8:08:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03375</b>	<b>-.00091</b>	<b>.92428</b>	<b>.00013</b>	<b>-.00030</b>	<b>1.5752</b>
Stddev	.00169	.00064	.01750	.00005	.00006	.0073
%RSD	4.9965	70.922	1.8929	38.700	19.189	.46077

#1	<b>-.03255</b>	<b>-.00064</b>	<b>.94348</b>	<b>.00016</b>	<b>-.00036</b>	<b>1.5777</b>
#2	<b>-.03301</b>	<b>-.00165</b>	<b>.92012</b>	<b>.00007</b>	<b>-.00025</b>	<b>1.5670</b>
#3	<b>-.03568</b>	<b>-.00044</b>	<b>.90924</b>	<b>.00016</b>	<b>-.00029</b>	<b>1.5809</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00041</b>	<b>.00076</b>	<b>-.00120</b>	<b>-.00001</b>	<b>.09358</b>	<b>.00010</b>
Stddev	.00012	.00111	.00137	.00207	.00300	.00053
%RSD	28.061	145.34	114.26	31350.	3.2109	535.26

#1	<b>.00047</b>	<b>.00092</b>	<b>-.00004</b>	<b>-.00073</b>	<b>.09705</b>	<b>.00039</b>
#2	<b>.00049</b>	<b>-.00042</b>	<b>-.00271</b>	<b>-.00161</b>	<b>.09179</b>	<b>.00042</b>
#3	<b>.00028</b>	<b>.00178</b>	<b>-.00084</b>	<b>.00233</b>	<b>.09190</b>	<b>-.00051</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37946-A-1-B SD@5      Acquired: 10/28/2014 8:08:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00387	-.00006	-.00113	-.00220	.00105
Stddev	.00360	.00012	.00054	.00184	.00003
%RSD	93.209	181.47	47.529	83.298	2.5998

#1	.00108	.00006	-.00063	-.00209	.00103
#2	.00258	-.00008	-.00170	-.00410	.00108
#3	.00793	-.00018	-.00106	-.00043	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2945.9	4648.5	66152.	11334.
Stddev	2.6	1.6	24.	36.
%RSD	.08702	.03408	.03636	.31876

#1	2945.6	4647.0	66129.	11328.
#2	2948.6	4648.4	66177.	11373.
#3	2943.5	4650.1	66150.	11302.

Sample Name: CCV 1369837      Acquired: 10/28/2014 8:13:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0464	25.363	.52113	2.0772	2.0253	2.0078
Stddev	.0021	.051	.00323	.0017	.0016	.0028
%RSD	.19981	.20013	.61917	.08150	.08095	.13800

#1	1.0482	25.308	.52473	2.0789	2.0243	2.0046
#2	1.0470	25.372	.51850	2.0772	2.0272	2.0092
#3	1.0441	25.409	.52017	2.0755	2.0244	2.0096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.148	.51473	2.0812	2.0089	1.9190	25.539
Stddev	.015	.00006	.0031	.0059	.0057	.015
%RSD	.02889	.01222	.15000	.29260	.29723	.05689

#1	51.156	.51480	2.0839	2.0142	1.9250	25.525
#2	51.157	.51468	2.0818	2.0098	1.9185	25.539
#3	51.131	.51470	2.0778	2.0026	1.9136	25.554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 8:13:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	127.60	2.0238	50.526	1.8768	1.9848	130.34
Stddev	.14	.0017	.003	.0027	.0038	.07
%RSD	.11240	.08350	.00598	.14173	.19196	.05361

#1	127.76	2.0226	50.526	1.8798	1.9829	130.30
#2	127.54	2.0257	50.529	1.8752	1.9823	130.30
#3	127.49	2.0231	50.523	1.8752	1.9892	130.42

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0710	.51167	.50847	.51627	2.0588	1.9317
Stddev	.0017	.00236	.00186	.00138	.0059	.0006
%RSD	.08219	.46189	.36568	.26709	.28584	.03300

#1	2.0697	.51195	.50883	.51476	2.0655	1.9320
#2	2.0730	.51389	.50646	.51658	2.0547	1.9321
#3	2.0704	.50918	.51013	.51746	2.0562	1.9309

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 8:13:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9696	1.9481	.97913	2.1558	1.9801
Stddev	.0053	.0071	.00327	.0069	.0016
%RSD	.26965	.36262	.33424	.31910	.08257
#1	1.9741	1.9541	.98065	2.1488	1.9787
#2	1.9708	1.9500	.97537	2.1561	1.9819
#3	1.9637	1.9403	.98137	2.1626	1.9798

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2405.9	4354.4	60454.	11135.
Stddev	4.4	3.1	144.	22.
%RSD	.18438	.07044	.23785	.19347
#1	2403.5	4351.1	60314.	11111.
#2	2403.0	4354.9	60449.	11143.
#3	2411.0	4357.2	60601.	11151.

Sample Name: CCB3      Acquired: 10/28/2014 8:18:34      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00014</b>	<b>-.00866</b>	<b>.00054</b>	<b>.00530</b>	<b>.00003</b>	<b>.00014</b>
Stddev	.00020	.02266	.00196	.00048	.00005	.00003
%RSD	137.99	261.71	366.76	9.1370	186.71	22.125

#1	<b>-.00033</b>	<b>-.03125</b>	<b>.00084</b>	<b>.00586</b>	<b>-.00001</b>	<b>.00015</b>
#2	<b>.00006</b>	<b>-.00880</b>	<b>.00233</b>	<b>.00507</b>	<b>.00008</b>	<b>.00011</b>
#3	<b>-.00016</b>	<b>.01407</b>	<b>-.00156</b>	<b>.00498</b>	<b>.00001</b>	<b>.00017</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00993</b>	<b>.00005</b>	<b>.00000</b>	<b>.00012</b>	<b>.00027</b>	<b>.00064</b>
Stddev	.00185	.00013	.00017	.00035	.00010	.00093
%RSD	18.666	245.08	64498.	287.43	38.776	144.25

#1	<b>-.01204</b>	<b>-.00003</b>	<b>-.00000</b>	<b>-.00026</b>	<b>.00027</b>	<b>.00151</b>
#2	<b>-.00923</b>	<b>-.00002</b>	<b>.00017</b>	<b>.00043</b>	<b>.00016</b>	<b>.00076</b>
#3	<b>-.00853</b>	<b>.00021</b>	<b>-.00016</b>	<b>.00019</b>	<b>.00036</b>	<b>-.00034</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: CCB3      Acquired: 10/28/2014 8:18:34      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00335</b>	<b>-.00075</b>	<b>.00876</b>	<b>.00004</b>	<b>.00179</b>	<b>.01796</b>
Stddev	.00287	.00085	.01981	.00001	.00027	.00310
%RSD	85.675	113.87	226.23	27.539	15.043	17.237

#1	<b>-.00239</b>	<b>.00023</b>	<b>-.01203</b>	<b>.00003</b>	<b>.00193</b>	<b>.01564</b>
#2	<b>-.00658</b>	<b>-.00132</b>	<b>.02742</b>	<b>.00004</b>	<b>.00196</b>	<b>.01677</b>
#3	<b>-.00108</b>	<b>-.00116</b>	<b>.01088</b>	<b>.00005</b>	<b>.00148</b>	<b>.02148</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00046</b>	<b>-.00001</b>	<b>.00069</b>	<b>-.00134</b>	<b>-.00091</b>	<b>.00010</b>
Stddev	.00011	.00099	.00135	.00242	.00447	.00030
%RSD	24.543	7055.3	194.77	180.42	492.53	307.96

#1	<b>.00054</b>	<b>-.00008</b>	<b>.00033</b>	<b>.00142</b>	<b>.00417</b>	<b>.00015</b>
#2	<b>.00052</b>	<b>.00100</b>	<b>.00219</b>	<b>-.00313</b>	<b>-.00265</b>	<b>-.00023</b>
#3	<b>.00033</b>	<b>-.00096</b>	<b>-.00044</b>	<b>-.00232</b>	<b>-.00423</b>	<b>.00037</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB3      Acquired: 10/28/2014 8:18:34      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00247	.00014	.00075	.00015	-.00011
Stddev	.00194	.00011	.00206	.00082	.00008
%RSD	78.485	82.727	275.36	559.29	74.061

#1	.00316	.00023	.00010	.00053	-.00017
#2	.00396	.00017	.00305	-.00080	-.00002
#3	.00028	.00001	-.00091	.00071	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.8	4630.8	65840.	11418.
Stddev	3.9	1.9	273.	34.
%RSD	.13129	.04144	.41502	.29995

#1	2951.4	4629.7	65577.	11415.
#2	2945.3	4629.8	66123.	11386.
#3	2952.5	4633.0	65821.	11454.

Sample Name: 180-38048-A-1-B@5      Acquired: 10/28/2014 8:23:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00918	.00324	.78438	.00815	.00004
Stddev	.00031	.00125	.00030	.00051	.00007	.00005
%RSD	180.14	13.645	9.3417	.06540	.91114	146.54

#1	-.00000	-.01012	.00289	.78381	.00823	-.00002
#2	-.00001	-.00966	.00344	.78479	.00816	.00004
#3	.00052	-.00776	.00338	.78455	.00808	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8941	.00160	.00033	.00256	.29573	.05839
Stddev	.0043	.00011	.00009	.00028	.00123	.00246
%RSD	.22772	6.7814	27.157	10.851	.41573	4.2117

#1	1.8981	.00163	.00023	.00286	.29434	.05556
#2	1.8946	.00168	.00040	.00253	.29621	.05955
#3	1.8895	.00147	.00036	.00231	.29666	.06005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38048-A-1-B@5      Acquired: 10/28/2014 8:23:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.18853</b>	<b>.00021</b>	<b>.34671</b>	<b>.10787</b>	<b>.00057</b>	<b>10.117</b>
Stddev	.02079	.00071	.00292	.00031	.00013	.021
%RSD	11.025	334.25	.84185	.29006	23.267	.21151

#1	.16650	-.00012	.34433	.10751	.00059	10.125
#2	.19131	.00103	.34996	.10810	.00043	10.134
#3	.20779	-.00027	.34583	.10800	.00069	10.093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00112</b>	<b>.44154</b>	<b>.00025</b>	<b>.00350</b>	<b>.54918</b>	<b>.00091</b>
Stddev	.00044	.00244	.00097	.00064	.00500	.00039
%RSD	39.614	.55245	389.03	18.347	.91048	43.028

#1	.00161	.44435	.00106	.00278	.55279	.00063
#2	.00074	.44003	-.00082	.00400	.54347	.00136
#3	.00101	.44023	.00051	.00373	.55127	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38048-A-1-B@5      Acquired: 10/28/2014 8:23:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01344	.00047	-.00169	.00082	1.0373
Stddev	.00530	.00004	.00128	.00144	.0034
%RSD	39.426	8.2697	75.866	175.04	.32910

#1	.01605	.00046	-.00178	-.00067	1.0410
#2	.01691	.00051	-.00293	.00221	1.0343
#3	.00734	.00044	-.00037	.00093	1.0366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2885.7	4563.0	65236.	11357.
Stddev	2.9	3.8	311.	40.
%RSD	.09886	.08405	.47715	.34849

#1	2882.8	4558.7	65033.	11398.
#2	2886.0	4564.4	65080.	11319.
#3	2888.4	4566.0	65594.	11355.

Sample Name: 180-38047-A-1-B      Acquired: 10/28/2014 8:28:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00032</b>	<b>.31213</b>	<b>.00928</b>	<b>F 39.765</b>	<b>.02446</b>	<b>.00003</b>
Stddev	.00029	.02779	.00165	.349	.00018	.00004
%RSD	90.967	8.9025	17.804	.87696	.74437	122.70

#1	<b>-.00044</b>	<b>.28028</b>	<b>.00818</b>	<b>40.036</b>	<b>.02429</b>	<b>.00007</b>
#2	<b>.00001</b>	<b>.32472</b>	<b>.01118</b>	<b>39.888</b>	<b>.02444</b>	<b>.00002</b>
#3	<b>-.00053</b>	<b>.33140</b>	<b>.00847</b>	<b>39.372</b>	<b>.02466</b>	<b>.00000</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Fail</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit				<b>25.000</b>		
Low Limit				<b>-.20000</b>		

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>11.986</b>	<b>.00121</b>	<b>.00161</b>	<b>.00786</b>	<b>2.3161</b>	<b>2.0087</b>
Stddev	.055	.00007	.00012	.00056	.0174	.0082
%RSD	.45961	5.5747	7.6864	7.1256	.75265	.40775

#1	<b>11.952</b>	<b>.00119</b>	<b>.00149</b>	<b>.00850</b>	<b>2.3007</b>	<b>2.0057</b>
#2	<b>12.049</b>	<b>.00129</b>	<b>.00173</b>	<b>.00764</b>	<b>2.3350</b>	<b>2.0179</b>
#3	<b>11.956</b>	<b>.00116</b>	<b>.00162</b>	<b>.00745</b>	<b>2.3125</b>	<b>2.0024</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-38047-A-1-B      Acquired: 10/28/2014 8:28:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4.8426</b>	<b>.00784</b>	<b>11.049</b>	<b>.54133</b>	<b>.03746</b>	<b>63.403</b>
Stddev	.0305	.00054	.052	.00395	.00044	.112
%RSD	.62888	6.8568	.46623	.73012	1.1797	.17672

#1	4.8098	.00822	11.043	.53771	.03786	63.277
#2	4.8478	.00809	11.103	.54555	.03754	63.492
#3	4.8700	.00723	11.001	.54074	.03699	63.438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00828</b>	<b>4.0763</b>	<b>.00163</b>	<b>.00464</b>	<b>.92878</b>	<b>.00976</b>
Stddev	.00031	.0372	.00146	.00080	.02040	.00063
%RSD	3.7534	.91251	89.572	17.305	2.1959	6.4329

#1	.00806	4.0996	.00216	.00537	.90542	.00972
#2	.00863	4.0960	-.00002	.00477	.94307	.01041
#3	.00813	4.0334	.00275	.00378	.93784	.00916

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38047-A-1-B      Acquired: 10/28/2014 8:28:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16983	.00409	-.00389	.00287	2.4246
Stddev	.00289	.00019	.00025	.00296	.0168
%RSD	1.7037	4.7372	6.4338	103.19	.69200

#1	.17089	.00388	-.00371	.00018	2.4401
#2	.17205	.00426	-.00417	.00239	2.4269
#3	.16656	.00413	-.00379	.00604	2.4068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.6	4325.4	60718.	11049.
Stddev	22.5	38.6	285.	107.
%RSD	.85951	.89292	.46874	.96652

#1	2599.3	4297.0	60511.	11096.
#2	2604.1	4309.8	60601.	10926.
#3	2640.4	4369.4	61043.	11124.



Sample Name: MB 180-122790/1-A      Acquired: 10/28/2014 8:33:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00313	.00102	.02815	.00002	.00004
Stddev	.00019	.01280	.00235	.00188	.00009	.00002
%RSD	72.254	408.53	229.29	6.6636	366.46	40.035

#1	.00005	-.01436	.00038	.03006	-.00007	.00004
#2	.00040	-.00585	-.00094	.02807	.00010	.00006
#3	.00036	.01081	.00362	.02631	.00005	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00160	.00005	-.00013	.00045	.00095	.00659
Stddev	.00079	.00006	.00006	.00043	.00028	.00180
%RSD	49.664	127.71	42.819	95.040	28.897	27.292

#1	.00228	.00001	-.00017	.00072	.00110	.00451
#2	.00073	.00002	-.00015	-.00004	.00112	.00768
#3	.00180	.00012	-.00007	.00068	.00063	.00758

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122790/1-A      Acquired: 10/28/2014 8:33:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03932</b>	<b>-.00156</b>	<b>.01754</b>	<b>.00017</b>	<b>-.00054</b>	<b>.01329</b>
Stddev	.01385	.00078	.01762	.00003	.00008	.00213
%RSD	35.235	49.941	100.44	18.857	15.291	16.029

#1	<b>-.02987</b>	<b>-.00075</b>	<b>.03554</b>	<b>.00015</b>	<b>-.00051</b>	<b>.01492</b>
#2	<b>-.03285</b>	<b>-.00164</b>	<b>.01675</b>	<b>.00021</b>	<b>-.00048</b>	<b>.01408</b>
#3	<b>-.05522</b>	<b>-.00231</b>	<b>.00033</b>	<b>.00015</b>	<b>-.00064</b>	<b>.01088</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00046</b>	<b>.00135</b>	<b>-.00015</b>	<b>.00088</b>	<b>.01041</b>	<b>.03389</b>
Stddev	.00010	.00080	.00017	.00189	.00063	.00037
%RSD	21.321	59.385	115.06	215.01	6.0510	1.0868

#1	<b>.00058</b>	<b>.00190</b>	<b>-.00014</b>	<b>.00290</b>	<b>.01002</b>	<b>.03431</b>
#2	<b>.00041</b>	<b>.00043</b>	<b>-.00031</b>	<b>.00060</b>	<b>.01008</b>	<b>.03364</b>
#3	<b>.00040</b>	<b>.00170</b>	<b>.00002</b>	<b>-.00086</b>	<b>.01114</b>	<b>.03371</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122790/1-A      Acquired: 10/28/2014 8:33:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00109	.00017	-.00067	-.00034	.00604
Stddev	.00104	.00009	.00092	.00198	.00017
%RSD	95.583	53.267	136.78	580.58	2.7489

#1	.00201	.00028	-.00163	.00174	.00623
#2	.00129	.00014	-.00058	-.00057	.00594
#3	-.00004	.00010	.00020	-.00219	.00595

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.9	4590.4	66198.	11399.
Stddev	2.7	10.6	100.	30.
%RSD	.09329	.23099	.15049	.25938

#1	2942.6	4578.6	66087.	11373.
#2	2944.2	4599.2	66230.	11393.
#3	2938.8	4593.5	66279.	11431.

Sample Name: LCS 180-122790/2-A      Acquired: 10/28/2014 8:39:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04917	1.9074	.48385	.97787	1.9398	.04822
Stddev	.00020	.0200	.00023	.00319	.0053	.00011
%RSD	.40523	1.0462	.04767	.32600	.27571	.22754

#1	.04894	1.9082	.48412	.98123	1.9454	.04810
#2	.04929	1.9269	.48370	.97751	1.9393	.04824
#3	.04927	1.8870	.48375	.97489	1.9347	.04832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.260	.04813	.48068	.19521	.23460	.98859
Stddev	.076	.00006	.00101	.00096	.00130	.00491
%RSD	.15758	.12346	.20958	.49134	.55296	.49696

#1	48.244	.04807	.48148	.19463	.23382	.98579
#2	48.193	.04814	.48100	.19468	.23388	.98572
#3	48.343	.04819	.47955	.19632	.23610	.99426

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122790/2-A      Acquired: 10/28/2014 8:39:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>48.288</b>	<b>.97878</b>	<b>47.627</b>	<b>.45744</b>	<b>.95273</b>	<b>50.086</b>
Stddev	.129	.00304	.019	.00149	.00270	.135
%RSD	.26746	.31096	.03914	.32562	.28322	.26965

#1	48.409	.98069	47.615	.45776	.95563	50.225
#2	48.152	.97527	47.616	.45581	.95030	49.955
#3	48.302	.98038	47.648	.45873	.95227	50.078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.47725</b>	<b>.46648</b>	<b>.47126</b>	<b>.47527</b>	<b>F 7.9574</b>	<b>1.8336</b>
Stddev	.00178	.00288	.00245	.00099	.0062	.0065
%RSD	.37304	.61770	.51910	.20825	.07731	.35239

#1	.47917	.46972	.47375	.47597	7.9638	1.8379
#2	.47692	.46555	.47118	.47570	7.9568	1.8367
#3	.47566	.46419	.46886	.47414	7.9516	1.8261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					12.000	
Low Limit					8.0000	

Sample Name: LCS 180-122790/2-A      Acquired: 10/28/2014 8:39:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.93579</b>	<b>.92141</b>	<b>.45425</b>	<b>.51026</b>	<b>.47978</b>
Stddev	.00367	.00233	.00203	.00263	.00133
%RSD	.39175	.25280	.44750	.51556	.27622

#1	<b>.93387</b>	<b>.92063</b>	<b>.45633</b>	<b>.51329</b>	<b>.48047</b>
#2	<b>.93347</b>	<b>.91958</b>	<b>.45226</b>	<b>.50887</b>	<b>.48062</b>
#3	<b>.94001</b>	<b>.92404</b>	<b>.45417</b>	<b>.50861</b>	<b>.47825</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2518.3</b>	<b>4311.3</b>	<b>60581.</b>	<b>11117.</b>
Stddev	5.6	8.7	80.	35.
%RSD	.22132	.20153	.13164	.31903

#1	2514.2	4302.3	60529.	11108.
#2	2515.9	4311.9	60673.	11156.
#3	2524.6	4319.6	60541.	11087.

Sample Name: LCSD 180-122790/3-A      Acquired: 10/28/2014 8:43:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04854	1.9092	.48672	.98893	1.9266	.04839
Stddev	.00094	.0067	.00324	.00281	.0036	.00009
%RSD	1.9426	.35204	.66518	.28416	.18839	.18850

#1	.04867	1.9089	.48365	.98594	1.9226	.04834
#2	.04754	1.9026	.48640	.99152	1.9297	.04849
#3	.04941	1.9160	.49010	.98934	1.9276	.04832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.722	.04816	.47811	.19373	.23389	.98536
Stddev	.017	.00029	.00256	.00406	.00155	.00613
%RSD	.03537	.59288	.53468	2.0935	.66180	.62166

#1	46.706	.04783	.47547	.19503	.23499	.97901
#2	46.739	.04837	.47828	.18918	.23212	.98584
#3	46.721	.04827	.48057	.19698	.23455	.99123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCSD 180-122790/3-A      Acquired: 10/28/2014 8:43:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>46.776</b>	<b>.97584</b>	<b>46.218</b>	<b>.45292</b>	<b>.96732</b>	<b>48.697</b>
Stddev	.033	.00119	.164	.00089	.00271	.063
%RSD	.07067	.12158	.35559	.19632	.28008	.12975

#1	46.747	.97448	46.029	.45389	.96483	48.661
#2	46.812	.97640	46.321	.45271	.97021	48.770
#3	46.769	.97664	46.305	.45215	.96693	48.661

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.47544</b>	<b>.46570</b>	<b>.47789</b>	<b>.48361</b>	<b>8.4351</b>	<b>1.8558</b>
Stddev	.00390	.00326	.00123	.00318	.0077	.0069
%RSD	.82091	.69926	.25817	.65666	.09125	.36910

#1	.47106	.46246	.47650	.48033	8.4440	1.8490
#2	.47673	.46897	.47832	.48383	8.4308	1.8558
#3	.47854	.46566	.47885	.48667	8.4306	1.8627

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCSD 180-122790/3-A      Acquired: 10/28/2014 8:43:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93668	.92543	.45513	.50629	.47582
Stddev	.00385	.00412	.00201	.01199	.00316
%RSD	.41133	.44519	.44197	2.3688	.66512

#1	.94112	.93015	.45329	.50506	.47244
#2	.93422	.92356	.45483	.49496	.47630
#3	.93471	.92258	.45728	.51885	.47872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2507.2	4279.2	60231.	11100.
Stddev	10.9	11.8	1107.	56.
%RSD	.43569	.27545	1.8380	.50062

#1	2518.9	4292.6	59770.	11075.
#2	2505.5	4274.4	61495.	11061.
#3	2497.2	4270.5	59430.	11164.

Sample Name: 180-38049-A-1-B      Acquired: 10/28/2014 8:48:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.01534	.00018	.00842	.00007	.00006
Stddev	.00025	.00797	.00215	.00056	.00006	.00001
%RSD	188.45	51.912	1168.5	6.6143	79.045	20.968

#1	.00020	.00904	.00263	.00827	.00005	.00008
#2	.00033	.02430	-.00063	.00903	.00013	.00006
#3	-.00014	.01269	-.00144	.00795	.00003	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00350	.00004	.00006	.00088	.00122	.04010
Stddev	.00085	.00008	.00023	.00020	.00019	.00187
%RSD	24.229	228.05	353.56	23.152	15.763	4.6568

#1	-.00257	-.00005	.00032	.00072	.00125	.03849
#2	-.00370	.00012	-.00002	.00082	.00139	.03966
#3	-.00423	.00004	-.00011	.00111	.00101	.04215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38049-A-1-B      Acquired: 10/28/2014 8:48:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00550</b>	<b>-.00078</b>	<b>.00674</b>	<b>.00057</b>	<b>.00022</b>	<b>.02035</b>
Stddev	.00668	.00037	.00968	.00003	.00012	.00197
%RSD	121.34	47.139	143.67	5.5434	53.233	9.6952

#1	<b>-.00065</b>	<b>-.00040</b>	<b>-.00268</b>	<b>.00058</b>	<b>.00026</b>	<b>.02189</b>
#2	<b>-.00274</b>	<b>-.00114</b>	<b>.01666</b>	<b>.00060</b>	<b>.00031</b>	<b>.02104</b>
#3	<b>-.01311</b>	<b>-.00080</b>	<b>.00623</b>	<b>.00054</b>	<b>.00009</b>	<b>.01813</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00048</b>	<b>.00058</b>	<b>.00124</b>	<b>.00067</b>	<b>.03485</b>	<b>.03195</b>
Stddev	.00018	.00037	.00028	.00227	.00424	.00038
%RSD	36.483	62.953	22.968	340.84	12.179	1.1932

#1	<b>.00029</b>	<b>.00078</b>	<b>.00112</b>	<b>.00208</b>	<b>.03310</b>	<b>.03200</b>
#2	<b>.00063</b>	<b>.00080</b>	<b>.00156</b>	<b>-.00195</b>	<b>.03969</b>	<b>.03154</b>
#3	<b>.00053</b>	<b>.00016</b>	<b>.00104</b>	<b>.00187</b>	<b>.03177</b>	<b>.03230</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38049-A-1-B      Acquired: 10/28/2014 8:48:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00208	.00099	-.00050	-.00030	.00771
Stddev	.00223	.00006	.00095	.00119	.00019
%RSD	107.38	6.2213	188.64	394.14	2.4657

#1	-.00041	.00098	-.00144	.00053	.00781
#2	.00273	.00093	-.00053	.00023	.00749
#3	.00392	.00105	.00046	-.00166	.00783

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2991.8	4622.3	66765.	11555.
Stddev	4.1	6.1	179.	139.
%RSD	.13546	.13137	.26837	1.2040

#1	2990.5	4627.8	66972.	11444.
#2	2988.5	4615.7	66658.	11711.
#3	2996.3	4623.2	66665.	11509.

Sample Name: 180-38049-A-2-B      Acquired: 10/28/2014 8:53:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00911	.00182	.00667	.00032	.00004
Stddev	.00009	.00391	.00107	.00038	.00014	.00004
%RSD	172.12	42.936	58.723	5.6389	42.692	88.928

#1	.00013	.01280	.00303	.00668	.00030	.00008
#2	-.00004	.00950	.00145	.00705	.00020	.00005
#3	.00006	.00501	.00099	.00630	.00047	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13030	.00007	-.00011	.00092	.00530	.51978
Stddev	.00243	.00012	.00012	.00030	.00032	.00288
%RSD	1.8674	167.56	109.02	32.146	5.9896	.55336

#1	.13219	.00020	-.00021	.00123	.00563	.51693
#2	.12756	-.00000	.00002	.00064	.00500	.52268
#3	.13116	.00001	-.00015	.00089	.00528	.51974

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38049-A-2-B      Acquired: 10/28/2014 8:53:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.02413</b>	<b>-.00097</b>	<b>.01884</b>	<b>.00330</b>	<b>-.00041</b>	<b>.02963</b>
Stddev	.02261	.00091	.01897	.00002	.00013	.00285
%RSD	93.718	93.852	100.70	.67513	30.959	9.6316

#1	<b>-.03820</b>	<b>.00008</b>	<b>.03380</b>	<b>.00332</b>	<b>-.00029</b>	<b>.03164</b>
#2	<b>.00195</b>	<b>-.00152</b>	<b>-.00250</b>	<b>.00328</b>	<b>-.00054</b>	<b>.02636</b>
#3	<b>-.03613</b>	<b>-.00148</b>	<b>.02521</b>	<b>.00330</b>	<b>-.00041</b>	<b>.03088</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00030</b>	<b>.00074</b>	<b>.00117</b>	<b>.00057</b>	<b>.04679</b>	<b>.03526</b>
Stddev	.00027	.00050	.00104	.00109	.00378	.00042
%RSD	89.458	68.072	88.847	190.38	8.0690	1.1808

#1	<b>.00058</b>	<b>.00059</b>	<b>.00026</b>	<b>.00179</b>	<b>.04408</b>	<b>.03572</b>
#2	<b>.00004</b>	<b>.00033</b>	<b>.00096</b>	<b>.00021</b>	<b>.05110</b>	<b>.03492</b>
#3	<b>.00029</b>	<b>.00130</b>	<b>.00231</b>	<b>-.00029</b>	<b>.04519</b>	<b>.03512</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38049-A-2-B      Acquired: 10/28/2014 8:53:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00242	.00148	-.00052	-.00126	.14278
Stddev	.00197	.00002	.00093	.00072	.00022
%RSD	81.111	1.5060	177.82	56.873	.15199

#1	.00063	.00149	-.00048	-.00178	.14285
#2	.00452	.00149	.00039	-.00156	.14254
#3	.00212	.00145	-.00146	-.00044	.14295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2964.2	4588.5	66064.	11599.
Stddev	5.1	6.8	255.	42.
%RSD	.17314	.14781	.38556	.36140

#1	2963.2	4580.7	65869.	11637.
#2	2959.6	4591.9	65971.	11554.
#3	2969.7	4593.0	66352.	11605.

Sample Name: 180-37947-A-1-B      Acquired: 10/28/2014 8:58:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.02129	.00039	.00579	.00051	-.00000
Stddev	.00008	.01105	.00181	.00011	.00008	.00004
%RSD	2533.4	51.869	458.21	1.9453	15.715	2878.0

#1	-.00006	.00856	.00128	.00591	.00046	.00003
#2	.00008	.02699	-.00169	.00579	.00060	.00001
#3	-.00003	.02833	.00159	.00568	.00047	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06827	.00016	.00006	.00073	.02589	.06365
Stddev	.00070	.00012	.00013	.00018	.00032	.00248
%RSD	1.0197	78.062	222.50	24.609	1.2523	3.8952

#1	.06862	.00007	.00018	.00081	.02552	.06439
#2	.06871	.00010	-.00008	.00052	.02602	.06567
#3	.06746	.00029	.00008	.00085	.02613	.06088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37947-A-1-B      Acquired: 10/28/2014 8:58:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.05324</b>	<b>-.00109</b>	<b>.01178</b>	<b>.00193</b>	<b>.00075</b>	<b>.04136</b>
Stddev	.02319	.00060	.00285	.00004	.00013	.00525
%RSD	43.551	55.000	24.162	2.2647	16.807	12.682

#1	<b>-.07396</b>	<b>-.00067</b>	<b>.00891</b>	<b>.00194</b>	<b>.00089</b>	<b>.04226</b>
#2	<b>-.05756</b>	<b>-.00082</b>	<b>.01460</b>	<b>.00188</b>	<b>.00068</b>	<b>.04610</b>
#3	<b>-.02820</b>	<b>-.00177</b>	<b>.01183</b>	<b>.00197</b>	<b>.00066</b>	<b>.03572</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00076</b>	<b>.00134</b>	<b>.00053</b>	<b>-.00011</b>	<b>.08352</b>	<b>.03479</b>
Stddev	.00011	.00059	.00041	.00279	.00116	.00064
%RSD	15.018	43.770	77.735	2424.0	1.3837	1.8257

#1	<b>.00065</b>	<b>.00160</b>	<b>.00005</b>	<b>.00298</b>	<b>.08273</b>	<b>.03538</b>
#2	<b>.00074</b>	<b>.00176</b>	<b>.00077</b>	<b>-.00092</b>	<b>.08484</b>	<b>.03488</b>
#3	<b>.00087</b>	<b>.00067</b>	<b>.00076</b>	<b>-.00241</b>	<b>.08298</b>	<b>.03412</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37947-A-1-B      Acquired: 10/28/2014 8:58:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00429	.00131	-.00045	-.00060	.05925
Stddev	.00342	.00003	.00068	.00150	.00006
%RSD	79.783	2.3551	152.70	249.66	.10958

#1	.00793	.00127	-.00120	-.00189	.05931
#2	.00377	.00133	-.00027	.00104	.05918
#3	.00115	.00132	.00013	-.00094	.05925

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2956.7	4603.1	66254.	11416.
Stddev	2.2	2.4	64.	47.
%RSD	.07577	.05315	.09612	.41135

#1	2954.1	4602.3	66264.	11369.
#2	2957.7	4601.1	66311.	11416.
#3	2958.2	4605.8	66185.	11463.

Sample Name: 180-37947-A-1-B SD@5      Acquired: 10/28/2014 9:03:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00025	.00165	.00396	.00015	-.00003
Stddev	.00029	.00829	.00119	.00044	.00003	.00003
%RSD	261.55	3293.1	72.423	11.135	22.653	87.886

#1	.00023	.00888	.00110	.00360	.00019	-.00006
#2	.00032	-.00729	.00302	.00445	.00014	-.00001
#3	-.00022	-.00235	.00083	.00383	.00012	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00399	.00002	-.00002	.00029	.00475	.01360
Stddev	.00136	.00005	.00014	.00022	.00049	.00099
%RSD	34.076	188.29	658.36	73.814	10.352	7.2483

#1	.00269	-.00003	-.00018	.00053	.00500	.01429
#2	.00541	.00004	.00004	.00026	.00418	.01247
#3	.00388	.00006	.00008	.00010	.00506	.01403

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37947-A-1-B SD@5      Acquired: 10/28/2014 9:03:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.07214</b>	<b>-.00176</b>	<b>-.00990</b>	<b>.00035</b>	<b>-.00051</b>	<b>.00923</b>
Stddev	.02253	.00093	.01251	.00006	.00014	.00693
%RSD	31.232	52.774	126.36	17.313	27.498	75.074

#1	<b>-.09481</b>	<b>-.00070</b>	<b>-.01991</b>	<b>.00029</b>	<b>-.00035</b>	<b>.01054</b>
#2	<b>-.04975</b>	<b>-.00215</b>	<b>.00412</b>	<b>.00041</b>	<b>-.00062</b>	<b>.00174</b>
#3	<b>-.07186</b>	<b>-.00244</b>	<b>-.01389</b>	<b>.00036</b>	<b>-.00055</b>	<b>.01542</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00012</b>	<b>.00102</b>	<b>.00067</b>	<b>.00136</b>	<b>.01646</b>	<b>.00693</b>
Stddev	.00024	.00162	.00043	.00198	.00688	.00019
%RSD	200.33	158.69	63.654	146.20	41.832	2.6961

#1	<b>.00019</b>	<b>.00264</b>	<b>.00085</b>	<b>.00337</b>	<b>.01002</b>	<b>.00672</b>
#2	<b>-.00015</b>	<b>-.00061</b>	<b>.00097</b>	<b>.00130</b>	<b>.02372</b>	<b>.00707</b>
#3	<b>.00032</b>	<b>.00104</b>	<b>.00018</b>	<b>-.00060</b>	<b>.01563</b>	<b>.00701</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37947-A-1-B SD@5      Acquired: 10/28/2014 9:03:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00421	.00025	-.00003	-.00037	.01148
Stddev	.00383	.00010	.00049	.00187	.00008
%RSD	91.039	39.984	1930.3	507.96	.73376

#1	.00529	.00037	-.00033	.00085	.01153
#2	.00738	.00021	-.00029	.00056	.01153
#3	-.00005	.00018	.00054	-.00252	.01138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2958.2	4636.4	65961.	11418.
Stddev	3.7	12.0	650.	31.
%RSD	.12629	.25872	.98604	.27209

#1	2960.8	4638.1	66534.	11431.
#2	2953.9	4623.6	66095.	11441.
#3	2959.8	4647.4	65254.	11383.

Sample Name: CRI 1369147      Acquired: 10/28/2014 9:09:09      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00531	.20364	.01116	.20927	.20365	.00406
Stddev	.00042	.00100	.00143	.00045	.00074	.00000
%RSD	7.8202	.48999	12.799	.21697	.36112	.05580

#1	.00483	.20424	.01270	.20947	.20397	.00406
#2	.00560	.20249	.00988	.20875	.20417	.00406
#3	.00549	.20419	.01089	.20960	.20281	.00406

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1135	.00501	.04837	.00534	.02554	.10370
Stddev	.0136	.00006	.00012	.00017	.00021	.00138
%RSD	.26629	1.2731	.25792	3.1991	.80627	1.3336

#1	5.1288	.00496	.04848	.00550	.02531	.10222
#2	5.1090	.00499	.04824	.00516	.02559	.10393
#3	5.1026	.00508	.04840	.00536	.02571	.10496

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 9:09:09      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4.9865</b>	<b>.04980</b>	<b>5.0863</b>	<b>.01518</b>	<b>.04017</b>	<b>5.3078</b>
Stddev	.0138	.00030	.0235	.00005	.00005	.0126
%RSD	.27583	.60865	.46139	.36090	.12709	.23694

#1	4.9993	.04955	5.0878	.01524	.04021	5.3223
#2	4.9883	.04970	5.0621	.01515	.04011	5.2999
#3	4.9719	.05014	5.1090	.01514	.04017	5.3012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03914</b>	<b>.00991</b>	<b>.00964</b>	<b>.00918</b>	<b>.51043</b>	<b>.10314</b>
Stddev	.00043	.00071	.00174	.00048	.00645	.00051
%RSD	1.0987	7.1189	18.085	5.2355	1.2628	.49331

#1	.03902	.00929	.00980	.00960	.50593	.10273
#2	.03962	.00978	.01130	.00929	.50754	.10370
#3	.03878	.01068	.00783	.00866	.51781	.10298

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 9:09:09      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05185</b>	<b>.05239</b>	<b>.02032</b>	<b>.05049</b>	<b>.01981</b>
Stddev	.00178	.00032	.00044	.00259	.00009
%RSD	3.4267	.61753	2.1848	5.1296	.46978

#1	<b>.05168</b>	<b>.05274</b>	<b>.01982</b>	<b>.04895</b>	<b>.01989</b>
#2	<b>.05371</b>	<b>.05210</b>	<b>.02047</b>	<b>.05348</b>	<b>.01983</b>
#3	<b>.05016</b>	<b>.05232</b>	<b>.02066</b>	<b>.04905</b>	<b>.01971</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2863.7</b>	<b>4585.1</b>	<b>64813.</b>	<b>11416.</b>
Stddev	3.4	5.5	196.	44.
%RSD	.11811	.11892	.30192	.38789

#1	<b>2867.5</b>	<b>4590.3</b>	<b>64903.</b>	<b>11377.</b>
#2	<b>2862.6</b>	<b>4585.6</b>	<b>64948.</b>	<b>11464.</b>
#3	<b>2861.0</b>	<b>4579.5</b>	<b>64589.</b>	<b>11405.</b>



Sample Name: CCV 1369837      Acquired: 10/28/2014 9:14:18      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0417	25.194	.51885	2.0747	2.0130	1.9975
Stddev	.0002	.029	.00246	.0002	.0055	.0009
%RSD	.01662	.11490	.47454	.01076	.27354	.04716

#1	1.0418	25.228	.51660	2.0749	2.0188	1.9985
#2	1.0415	25.177	.51847	2.0749	2.0078	1.9972
#3	1.0417	25.178	.52148	2.0745	2.0125	1.9967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.641	.51390	2.0792	2.0010	1.9060	25.457
Stddev	.089	.00050	.0018	.0026	.0042	.067
%RSD	.17669	.09731	.08591	.12789	.21772	.26442

#1	50.539	.51420	2.0796	1.9981	1.9013	25.445
#2	50.674	.51333	2.0772	2.0030	1.9090	25.530
#3	50.708	.51419	2.0807	2.0020	1.9079	25.397

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 9:14:18      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.75</b>	<b>2.0204</b>	<b>50.046</b>	<b>1.8645</b>	<b>1.9801</b>	<b>129.66</b>
Stddev	.26	.0026	.048	.0123	.0007	.17
%RSD	.20293	.12654	.09656	.65935	.03520	.12819

#1	126.89	2.0208	49.991	1.8505	1.9801	129.76
#2	126.46	2.0177	50.079	1.8694	1.9808	129.47
#3	126.91	2.0228	50.069	1.8736	1.9794	129.75

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0636</b>	<b>.50879</b>	<b>.50596</b>	<b>.51096</b>	<b>2.0469</b>	<b>1.9195</b>
Stddev	.0027	.00122	.00110	.00342	.0086	.0015
%RSD	.13070	.23937	.21709	.66899	.41969	.07767

#1	2.0648	.50994	.50487	.51346	2.0555	1.9211
#2	2.0605	.50751	.50592	.50706	2.0383	1.9192
#3	2.0655	.50891	.50707	.51236	2.0469	1.9182

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 9:14:18      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9527	1.9289	.97060	2.1489	1.9726
Stddev	.0036	.0032	.00208	.0194	.0029
%RSD	.18219	.16660	.21432	.90519	.14483

#1	1.9549	1.9252	.97282	2.1712	1.9735
#2	1.9546	1.9310	.97028	2.1396	1.9694
#3	1.9486	1.9305	.96870	2.1358	1.9749

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2397.5	4338.8	60296.	11149.
Stddev	1.3	2.0	80.	39.
%RSD	.05314	.04695	.13280	.34645

#1	2397.0	4339.8	60244.	11193.
#2	2396.6	4336.4	60255.	11122.
#3	2399.0	4340.1	60388.	11133.

Sample Name: CCB4      Acquired: 10/28/2014 9:19:05      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00032</b>	<b>.00414</b>	<b>.00073</b>	<b>.00342</b>	<b>.00009</b>	<b>.00013</b>
Stddev	.00022	.01016	.00108	.00006	.00003	.00003
%RSD	68.560	245.29	148.05	1.7358	38.540	21.199

#1	<b>-.00015</b>	<b>.00024</b>	<b>.00114</b>	<b>.00343</b>	<b>.00013</b>	<b>.00015</b>
#2	<b>-.00025</b>	<b>-.00349</b>	<b>-.00050</b>	<b>.00348</b>	<b>.00007</b>	<b>.00014</b>
#3	<b>-.00056</b>	<b>.01568</b>	<b>.00154</b>	<b>.00336</b>	<b>.00007</b>	<b>.00010</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00925</b>	<b>.00013</b>	<b>.00003</b>	<b>.00021</b>	<b>.00041</b>	<b>.00192</b>
Stddev	.00099	.00011	.00013	.00020	.00043	.00136
%RSD	10.731	85.019	433.29	94.189	106.83	70.539

#1	<b>-.00849</b>	<b>.00007</b>	<b>.00018</b>	<b>.00038</b>	<b>.00039</b>	<b>.00282</b>
#2	<b>-.01037</b>	<b>.00026</b>	<b>-.00002</b>	<b>-.00001</b>	<b>.00085</b>	<b>.00036</b>
#3	<b>-.00888</b>	<b>.00006</b>	<b>-.00007</b>	<b>.00027</b>	<b>-.00002</b>	<b>.00259</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB4      Acquired: 10/28/2014 9:19:05      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03558</b>	<b>-.00087</b>	<b>.01292</b>	<b>.00005</b>	<b>.00134</b>	<b>.01486</b>
Stddev	.04318	.00077	.02376	.00004	.00032	.00284
%RSD	121.38	89.007	183.95	77.524	23.729	19.115

#1	.00860	-.00119	.03392	.00001	.00155	.01466
#2	-.07769	-.00142	-.01288	.00005	.00149	.01212
#3	-.03764	.00001	.01771	.00009	.00097	.01779

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00034</b>	<b>-.00012</b>	<b>-.00002</b>	<b>.00171</b>	<b>.00659</b>	<b>.00017</b>
Stddev	.00019	.00016	.00181	.00239	.00450	.00013
%RSD	57.127	136.05	9016.9	139.50	68.287	75.114

#1	.00033	.00001	.00158	.00109	.00184	.00020
#2	.00015	-.00029	.00033	-.00031	.01079	.00003
#3	.00054	-.00006	-.00198	.00434	.00715	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB4      Acquired: 10/28/2014 9:19:05      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00252	.00018	.00054	-.00203	-.00005
Stddev	.00349	.00012	.00048	.00291	.00014
%RSD	138.21	62.951	89.729	143.48	269.56

#1	.00634	.00014	.00054	.00056	.00009
#2	-.00049	.00009	.00006	-.00518	-.00018
#3	.00172	.00031	.00102	-.00147	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2938.8	4611.4	65516.	11427.
Stddev	3.6	7.9	77.	85.
%RSD	.12102	.17055	.11730	.74247

#1	2935.1	4603.7	65449.	11512.
#2	2942.2	4611.1	65600.	11342.
#3	2939.1	4619.4	65500.	11428.

Sample Name: MB 180-122782/1-A      Acquired: 10/28/2014 9:24:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00481	.00041	.00293	.00002	.00005
Stddev	.00016	.01045	.00049	.00034	.00015	.00001
%RSD	129.77	217.22	118.89	11.589	897.06	13.972

#1	.00022	.00557	.00008	.00331	-.00001	.00005
#2	.00020	-.01533	.00018	.00267	.00017	.00005
#3	-.00006	-.00467	.00098	.00280	-.00011	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01721	.00017	-.00012	.00024	.00092	.00288
Stddev	.00134	.00005	.00006	.00011	.00036	.00068
%RSD	7.7759	30.751	46.051	47.604	38.740	23.522

#1	-.01870	.00016	-.00014	.00037	.00052	.00296
#2	-.01611	.00012	-.00016	.00018	.00121	.00351
#3	-.01682	.00023	-.00006	.00017	.00102	.00217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122782/1-A      Acquired: 10/28/2014 9:24:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03948</b>	<b>.00005</b>	<b>-.00108</b>	<b>.00009</b>	<b>.00011</b>	<b>.00792</b>
Stddev	.01551	.00034	.00587	.00005	.00015	.00708
%RSD	39.286	636.21	544.62	52.635	137.65	89.296

#1	<b>-.02160</b>	<b>.00029</b>	<b>.00542</b>	<b>.00004</b>	<b>.00020</b>	<b>.00029</b>
#2	<b>-.04762</b>	<b>.00021</b>	<b>-.00601</b>	<b>.00009</b>	<b>.00020</b>	<b>.00922</b>
#3	<b>-.04923</b>	<b>-.00034</b>	<b>-.00264</b>	<b>.00013</b>	<b>-.00007</b>	<b>.01426</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00057</b>	<b>-.00080</b>	<b>.00069</b>	<b>.00116</b>	<b>.00354</b>	<b>.00002</b>
Stddev	.00025	.00032	.00021	.00152	.00766	.00045
%RSD	44.387	39.517	30.144	131.01	216.21	2126.1

#1	<b>.00032</b>	<b>-.00101</b>	<b>.00072</b>	<b>.00291</b>	<b>-.00248</b>	<b>.00015</b>
#2	<b>.00083</b>	<b>-.00095</b>	<b>.00047</b>	<b>.00017</b>	<b>.00095</b>	<b>-.00048</b>
#3	<b>.00057</b>	<b>-.00044</b>	<b>.00088</b>	<b>.00039</b>	<b>.01216</b>	<b>.00039</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: MB 180-122782/1-A      Acquired: 10/28/2014 9:24:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00298	.00012	-.00040	.00234	.00163
Stddev	.00244	.00012	.00057	.00106	.00005
%RSD	81.743	101.00	140.92	45.534	2.8605

#1	.00474	.00002	-.00050	.00263	.00159
#2	.00020	.00008	-.00092	.00323	.00162
#3	.00400	.00026	.00021	.00116	.00168

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2899.4	4530.1	65071.	11230.
Stddev	4.9	11.1	361.	16.
%RSD	.16976	.24440	.55433	.14008

#1	2893.8	4517.4	64877.	11230.
#2	2903.3	4535.6	64849.	11214.
#3	2901.0	4537.3	65487.	11246.

Sample Name: LCS 180-122782/2-A      Acquired: 10/28/2014 9:29:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05130	1.9954	.51541	1.0808	2.0396	.05122
Stddev	.00025	.0132	.00032	.0022	.0015	.00013
%RSD	.48991	.66028	.06296	.20481	.07217	.24608

#1	.05110	1.9969	.51566	1.0832	2.0408	.05135
#2	.05158	2.0078	.51505	1.0804	2.0380	.05122
#3	.05123	1.9816	.51552	1.0789	2.0401	.05109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.533	.05115	.50493	.20130	.24725	1.0293
Stddev	.170	.00009	.00090	.00104	.00068	.0058
%RSD	.33623	.16686	.17808	.51794	.27665	.56256

#1	50.725	.05120	.50575	.20251	.24801	1.0303
#2	50.473	.05105	.50509	.20065	.24668	1.0346
#3	50.402	.05121	.50397	.20076	.24707	1.0231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122782/2-A      Acquired: 10/28/2014 9:29:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>51.082</b>	<b>1.0350</b>	<b>49.875</b>	<b>.47042</b>	<b>1.0418</b>	<b>53.075</b>
Stddev	.067	.0011	.189	.00097	.0001	.006
%RSD	.13051	.10590	.37973	.20664	.01458	.01176

#1	51.058	1.0344	50.080	.47151	1.0416	53.073
#2	51.157	1.0343	49.707	.46964	1.0419	53.082
#3	51.030	1.0363	49.839	.47011	1.0417	53.071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.50228</b>	<b>.49597</b>	<b>.52375</b>	<b>.51365</b>	<b>10.182</b>	<b>1.9804</b>
Stddev	.00125	.00017	.00036	.00363	.023	.0043
%RSD	.24931	.03490	.06912	.70701	.22501	.21625

#1	.50345	.49616	.52413	.51642	10.183	1.9847
#2	.50243	.49581	.52341	.50954	10.204	1.9761
#3	.50096	.49596	.52372	.51499	10.158	1.9804

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122782/2-A      Acquired: 10/28/2014 9:29:25      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.97439	.99078	.48946	.53874	.49592
Stddev	.00288	.00539	.00213	.00099	.00156
%RSD	.29538	.54421	.43506	.18408	.31479

#1	.97106	.99683	.49186	.53897	.49772
#2	.97606	.98903	.48779	.53766	.49497
#3	.97603	.98649	.48873	.53960	.49506

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2487.6	4275.4	60559.	11219.
Stddev	5.8	6.5	72.	51.
%RSD	.23249	.15239	.11902	.45021

#1	2481.6	4268.0	60481.	11161.
#2	2487.9	4277.9	60623.	11255.
#3	2493.2	4280.3	60574.	11241.

Sample Name: 180-37960-A-1-A      Acquired: 10/28/2014 9:34:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00037</b>	<b>.05258</b>	<b>.09977</b>	<b>16.902</b>	<b>.00162</b>	<b>.00009</b>
Stddev	.00019	.01919	.00219	.003	.00014	.00003
%RSD	53.205	36.491	2.1987	.01693	8.4161	27.469

#1	<b>-.00040</b>	<b>.03043</b>	<b>.09949</b>	<b>16.900</b>	<b>.00153</b>	<b>.00010</b>
#2	<b>-.00054</b>	<b>.06373</b>	<b>.09773</b>	<b>16.905</b>	<b>.00156</b>	<b>.00012</b>
#3	<b>-.00016</b>	<b>.06359</b>	<b>.10209</b>	<b>16.899</b>	<b>.00178</b>	<b>.00007</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.40195</b>	<b>.00116</b>	<b>.00108</b>	<b>.00361</b>	<b>.15698</b>	<b>.26655</b>
Stddev	.00201	.00007	.00010	.00046	.00110	.00308
%RSD	.50001	5.8164	9.7435	12.826	.70176	1.1547

#1	<b>.39992</b>	<b>.00118</b>	<b>.00120</b>	<b>.00342</b>	<b>.15576</b>	<b>.27006</b>
#2	<b>.40393</b>	<b>.00122</b>	<b>.00100</b>	<b>.00327</b>	<b>.15791</b>	<b>.26523</b>
#3	<b>.40201</b>	<b>.00109</b>	<b>.00103</b>	<b>.00413</b>	<b>.15726</b>	<b>.26434</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37960-A-1-A      Acquired: 10/28/2014 9:34:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	118.11	.01265	.09510	.00421	.01039	30.500
Stddev	.25	.00090	.00468	.00005	.00033	.051
%RSD	.21571	7.0778	4.9183	1.1253	3.1826	.16617

#1	118.00	.01267	.09762	.00416	.01069	30.512
#2	118.40	.01174	.09798	.00425	.01044	30.543
#3	117.93	.01353	.08970	.00422	.01003	30.444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00777	.03587	.00333	.12826	3.1446	.03281
Stddev	.00015	.00148	.00058	.00056	.0198	.00044
%RSD	1.9493	4.1195	17.290	.43525	.63029	1.3375

#1	.00773	.03547	.00275	.12875	3.1308	.03321
#2	.00765	.03751	.00335	.12838	3.1673	.03288
#3	.00794	.03464	.00390	.12765	3.1358	.03234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37960-A-1-A      Acquired: 10/28/2014 9:34:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00649	.00188	F -.07444	.00008	.16656
Stddev	.00256	.00026	.00088	.00195	.00047
%RSD	39.401	14.006	1.1785	2574.5	.28225

#1	.00486	.00216	-.07345	-.00039	.16614
#2	.00518	.00164	-.07477	.00221	.16707
#3	.00944	.00183	-.07511	-.00160	.16647

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			5.0000		
Low Limit			-.02000		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.5	4077.2	58794.	11505.
Stddev	4.4	2.1	279.	80.
%RSD	.15643	.05230	.47507	.69371

#1	2800.3	4075.5	58871.	11577.
#2	2791.7	4079.6	59026.	11419.
#3	2794.6	4076.6	58484.	11519.

Sample Name: 180-38038-B-1-A      Acquired: 10/28/2014 9:39:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00025</b>	<b>-.01131</b>	<b>.00150</b>	<b>.08957</b>	<b>.02425</b>	<b>.00003</b>
Stddev	.00015	.01345	.00168	.00211	.00002	.00011
%RSD	59.565	118.89	112.16	2.3504	.08296	402.38

#1	<b>-.00039</b>	<b>-.00612</b>	<b>.00002</b>	<b>.09199</b>	<b>.02427</b>	<b>.00015</b>
#2	<b>-.00028</b>	<b>-.00123</b>	<b>.00333</b>	<b>.08859</b>	<b>.02426</b>	<b>-.00002</b>
#3	<b>-.00009</b>	<b>-.02658</b>	<b>.00116</b>	<b>.08813</b>	<b>.02423</b>	<b>-.00005</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>484.79</b>	<b>-.00035</b>	<b>.04521</b>	<b>.00167</b>	<b>.01106</b>	<b>3.5494</b>
Stddev	3.35	.00005	.00035	.00012	.00039	.0094
%RSD	.69133	13.810	.77771	6.9002	3.4907	.26374

#1	<b>486.02</b>	<b>-.00040</b>	<b>.04530</b>	<b>.00162</b>	<b>.01077</b>	<b>3.5409</b>
#2	<b>481.00</b>	<b>-.00030</b>	<b>.04482</b>	<b>.00159</b>	<b>.01091</b>	<b>3.5478</b>
#3	<b>487.36</b>	<b>-.00034</b>	<b>.04551</b>	<b>.00180</b>	<b>.01150</b>	<b>3.5594</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-38038-B-1-A      Acquired: 10/28/2014 9:39:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4.7274</b>	<b>.04660</b>	<b>207.69</b>	<b>5.7878</b>	<b>-.00033</b>	<b>12.917</b>
Stddev	.0052	.00081	.19	.0064	.00018	.021
%RSD	.10907	1.7472	.09197	.11061	53.555	.16584

#1	4.7323	.04712	207.53	5.7873	-.00014	12.940
#2	4.7220	.04567	207.62	5.7945	-.00049	12.897
#3	4.7277	.04702	207.90	5.7817	-.00037	12.914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.06717</b>	<b>-.00470</b>	<b>-.00569</b>	<b>.00003</b>	<b>7.3329</b>	<b>-.00031</b>
Stddev	.00031	.00171	.00243	.00367	.0407	.00056
%RSD	.46803	36.326	42.770	10765.	.55480	179.72

#1	.06684	-.00296	-.00312	.00116	7.3680	.00012
#2	.06719	-.00476	-.00599	.00301	7.2883	-.00094
#3	.06747	-.00637	-.00796	-.00407	7.3423	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-A      Acquired: 10/28/2014 9:39:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.6770	-.00119	.00074	.00043	.02470
Stddev	.0126	.00002	.00138	.00292	.00027
%RSD	.75356	1.3882	186.08	674.96	1.1132

#1	1.6795	-.00117	.00225	.00263	.02502
#2	1.6633	-.00120	-.00045	.00154	.02455
#3	1.6882	-.00118	.00042	-.00287	.02453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2253.6	3904.7	56058.	10785.
Stddev	5.4	19.7	316.	50.
%RSD	.23761	.50351	.56407	.46251

#1	2251.5	3888.4	55693.	10747.
#2	2249.6	3899.1	56233.	10842.
#3	2259.7	3926.5	56247.	10767.

Sample Name: 180-38038-B-1-A SD@5      Acquired: 10/28/2014 9:44:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00001</b>	<b>-.00443</b>	<b>.00139</b>	<b>.01957</b>	<b>.00474</b>	<b>.00002</b>
Stddev	.00039	.01323	.00145	.00019	.00007	.00002
%RSD	2687.1	298.81	104.85	.95749	1.4996	89.852
#1	<b>-.00026</b>	<b>-.01970</b>	<b>.00303</b>	<b>.01943</b>	<b>.00475</b>	<b>.00003</b>
#2	<b>.00044</b>	<b>.00294</b>	<b>.00086</b>	<b>.01949</b>	<b>.00467</b>	<b>-.00000</b>
#3	<b>-.00023</b>	<b>.00348</b>	<b>.00027</b>	<b>.01978</b>	<b>.00481</b>	<b>.00003</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>102.05</b>	<b>-.00016</b>	<b>.00874</b>	<b>.00051</b>	<b>.00274</b>	<b>.71841</b>
Stddev	.36	.00010	.00032	.00006	.00050	.00788
%RSD	.35529	65.822	3.6465	11.736	18.154	1.0969
#1	<b>101.64</b>	<b>-.00027</b>	<b>.00850</b>	<b>.00055</b>	<b>.00316</b>	<b>.71115</b>
#2	<b>102.21</b>	<b>-.00007</b>	<b>.00862</b>	<b>.00044</b>	<b>.00219</b>	<b>.72679</b>
#3	<b>102.32</b>	<b>-.00013</b>	<b>.00910</b>	<b>.00054</b>	<b>.00286</b>	<b>.71729</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-A SD@5      Acquired: 10/28/2014 9:44:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.88741	.00801	40.980	1.2912	-.00065	2.5227
Stddev	.01892	.00065	.129	.0135	.00014	.0109
%RSD	2.1316	8.1354	.31460	1.0465	20.860	.43068

#1	.88492	.00809	40.834	1.2765	-.00062	2.5154
#2	.90745	.00733	41.028	1.2940	-.00054	2.5352
#3	.86987	.00862	41.079	1.3031	-.00080	2.5174

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01266	-.00055	-.00090	.00163	1.4593	-.00031
Stddev	.00050	.00013	.00147	.00360	.0147	.00059
%RSD	3.9518	24.207	163.52	221.74	1.0071	189.07

#1	.01211	-.00060	-.00073	.00535	1.4442	.00032
#2	.01277	-.00040	-.00245	-.00185	1.4603	-.00040
#3	.01310	-.00064	.00048	.00138	1.4735	-.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-A SD@5      Acquired: 10/28/2014 9:44:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.34683	-.00018	-.00012	-.00067	.00511
Stddev	.00545	.00002	.00027	.00324	.00006
%RSD	1.5726	13.525	229.47	482.86	1.0834

#1	.34164	-.00015	-.00040	-.00152	.00514
#2	.35251	-.00020	.00013	.00291	.00504
#3	.34632	-.00020	-.00007	-.00340	.00513

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2643.9	4351.0	61567.	11322.
Stddev	2.2	2.2	293.	89.
%RSD	.08301	.05067	.47517	.78266

#1	2643.9	4350.6	61231.	11417.
#2	2641.6	4349.0	61709.	11306.
#3	2646.0	4353.3	61762.	11241.

Sample Name: 180-38038-B-1-B MS      Acquired: 10/28/2014 9:49:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05618	2.0894	.56362	1.2414	2.1335	.05067
Stddev	.00059	.0178	.00418	.0019	.0017	.00011
%RSD	1.0541	.85097	.74166	.15746	.08045	.21742

#1	.05573	2.0961	.56030	1.2416	2.1320	.05061
#2	.05685	2.1030	.56831	1.2432	2.1331	.05080
#3	.05596	2.0693	.56225	1.2393	2.1354	.05060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	536.96	.05474	.56241	.20198	.26015	4.5798
Stddev	3.13	.00025	.00227	.00032	.00128	.0119
%RSD	.58372	.46238	.40376	.15859	.49342	.26040

#1	537.14	.05447	.56006	.20185	.25917	4.5936
#2	540.00	.05497	.56459	.20173	.26160	4.5741
#3	533.74	.05478	.56258	.20234	.25967	4.5719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-B MS      Acquired: 10/28/2014 9:49:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>59.033</b>	<b>1.1502</b>	<b>261.78</b>	<b>6.1336</b>	<b>1.0675</b>	<b>69.421</b>
Stddev	.057	.0004	.77	.0376	.0024	.079
%RSD	.09628	.03277	.29434	.61251	.22918	.11354
#1	59.096	1.1506	261.55	6.1292	1.0667	69.467
#2	59.018	1.1498	262.64	6.1732	1.0703	69.465
#3	58.986	1.1503	261.15	6.0984	1.0655	69.330

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.57867</b>	<b>.49387</b>	<b>.56701</b>	<b>.59593</b>	<b>17.918</b>	<b>1.9806</b>
Stddev	.00221	.00145	.00358	.00278	.053	.0061
%RSD	.38191	.29454	.63058	.46733	.29632	.30925
#1	.57636	.49219	.56947	.59308	17.934	1.9806
#2	.58077	.49461	.56867	.59865	17.962	1.9867
#3	.57888	.49480	.56291	.59605	17.859	1.9744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-B MS      Acquired: 10/28/2014 9:49:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.6341</b>	<b>.95825</b>	<b>.47512</b>	<b>.57309</b>	<b>.50937</b>
Stddev	.0167	.00465	.00320	.00557	.00199
%RSD	.63222	.48498	.67334	.97278	.39070

#1	2.6270	.95535	.47263	.57603	.50725
#2	2.6532	.96361	.47400	.56666	.51120
#3	2.6222	.95579	.47873	.57657	.50965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2151.7</b>	<b>3825.2</b>	<b>54877.</b>	<b>10701.</b>
Stddev	5.5	9.3	158.	64.
%RSD	.25793	.24393	.28858	.59930

#1	2154.6	3821.6	54737.	10713.
#2	2145.3	3818.3	54844.	10632.
#3	2155.3	3835.8	55049.	10758.



Sample Name: 180-38038-B-1-C MSD      Acquired: 10/28/2014 9:54:56      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05461	2.0253	.54066	1.2061	2.0728	.04905
Stddev	.00062	.0194	.00074	.0059	.0067	.00024
%RSD	1.1284	.95748	.13689	.48904	.32418	.49920

#1	.05530	2.0456	.53982	1.2090	2.0793	.04926
#2	.05442	2.0070	.54120	1.2100	2.0733	.04911
#3	.05411	2.0234	.54097	1.1993	2.0659	.04878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	523.26	.05301	.54646	.19686	.25041	4.4784
Stddev	4.29	.00017	.00073	.00200	.00097	.0166
%RSD	.81950	.32299	.13376	1.0154	.38808	.36972

#1	528.00	.05314	.54720	.19658	.25153	4.4909
#2	519.64	.05306	.54574	.19502	.24982	4.4845
#3	522.13	.05281	.54645	.19899	.24988	4.4596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-C MSD      Acquired: 10/28/2014 9:54:56      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>57.378</b>	<b>1.1171</b>	<b>255.19</b>	<b>6.0023</b>	<b>1.0315</b>	<b>67.485</b>
Stddev	.059	.0009	.78	.0331	.0024	.121
%RSD	.10343	.07934	.30474	.55228	.22830	.17951

#1	57.405	1.1181	256.09	6.0353	1.0325	67.625
#2	57.310	1.1164	254.70	5.9690	1.0331	67.419
#3	57.420	1.1169	254.80	6.0027	1.0288	67.412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.56215</b>	<b>.47913</b>	<b>.54627</b>	<b>.56853</b>	<b>17.436</b>	<b>1.9112</b>
Stddev	.00046	.00125	.00492	.00295	.008	.0052
%RSD	.08187	.26003	.90019	.51819	.04843	.27261

#1	.56201	.48045	.55006	.57175	17.443	1.9139
#2	.56266	.47896	.54804	.56784	17.426	1.9144
#3	.56178	.47798	.54071	.56598	17.438	1.9052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-1-C MSD      Acquired: 10/28/2014 9:54:56      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.5612</b>	<b>.92501</b>	<b>.45933</b>	<b>.56031</b>	<b>.49302</b>
Stddev	.0140	.00492	.00015	.00274	.00089
%RSD	.54767	.53155	.03227	.48935	.18127

#1	2.5691	.93061	.45916	.55756	.49403
#2	2.5695	.92142	.45942	.56033	.49270
#3	2.5450	.92299	.45941	.56304	.49233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2159.3</b>	<b>3842.9</b>	<b>55096.</b>	<b>10766.</b>
Stddev	2.1	8.9	57.	69.
%RSD	.09758	.23237	.10406	.64194

#1	2157.5	3838.3	55042.	10694.
#2	2158.9	3837.3	55156.	10832.
#3	2161.6	3853.2	55089.	10771.

Sample Name: 180-38038-B-2-A      Acquired: 10/28/2014 10:00:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00009</b>	<b>.02516</b>	<b>-.00518</b>	<b>.08487</b>	<b>.01861</b>	<b>.00067</b>
Stddev	.00027	.00181	.00145	.00114	.00010	.00003
%RSD	316.46	7.2097	27.895	1.3374	.52407	4.6290

#1	.00001	.02486	-.00352	.08618	.01870	.00067
#2	.00012	.02710	-.00613	.08431	.01863	.00065
#3	-.00039	.02351	-.00591	.08413	.01850	.00071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>390.90</b>	<b>.00010</b>	<b>.15248</b>	<b>.00538</b>	<b>.00887</b>	<b>63.107</b>
Stddev	.67	.00009	.00019	.00020	.00048	.139
%RSD	.17245	85.448	.12139	3.7336	5.4015	.21963

#1	390.12	.00013	.15228	.00559	.00932	63.187
#2	391.33	.00000	.15264	.00520	.00836	62.947
#3	391.25	.00017	.15251	.00534	.00893	63.186

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-2-A      Acquired: 10/28/2014 10:00:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4.2423</b>	<b>.05596</b>	<b>240.16</b>	<b>16.544</b>	<b>-.00152</b>	<b>14.426</b>
Stddev	.0144	.00103	.26	.073	.00008	.016
%RSD	.34022	1.8336	.10670	.43835	5.2158	.10970

#1	4.2344	.05485	239.90	16.474	-.00150	14.414
#2	4.2590	.05615	240.16	16.619	-.00161	14.444
#3	4.2335	.05688	240.41	16.540	-.00145	14.420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.16638</b>	<b>-.00165</b>	<b>-.00569</b>	<b>.00285</b>	<b>8.5407</b>	<b>.00031</b>
Stddev	.00028	.00024	.00147	.00280	.0441	.00008
%RSD	.17038	14.513	25.866	98.250	.51600	26.393

#1	.16656	-.00156	-.00727	.00130	8.4936	.00034
#2	.16605	-.00193	-.00544	.00117	8.5477	.00038
#3	.16652	-.00148	-.00436	.00609	8.5809	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38038-B-2-A      Acquired: 10/28/2014 10:00:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.7105	-.00013	.00335	.00494	.10521
Stddev	.0047	.00003	.00140	.00185	.00026
%RSD	.27546	19.414	41.681	37.413	.24670

#1	1.7158	-.00010	.00251	.00603	.10501
#2	1.7090	-.00014	.00258	.00281	.10511
#3	1.7068	-.00015	.00496	.00598	.10550

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2276.7	4008.4	57765.	11307.
Stddev	2.0	8.2	54.	20.
%RSD	.08614	.20346	.09359	.17805

#1	2274.7	4001.4	57818.	11317.
#2	2278.6	4017.3	57710.	11284.
#3	2276.8	4006.5	57768.	11321.

Sample Name: CCV 1369837      Acquired: 10/28/2014 10:05:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0406	25.226	.51733	2.0737	2.0155	2.0001
Stddev	.0010	.094	.00104	.0037	.0040	.0052
%RSD	.09595	.37359	.20048	.17980	.19858	.25745

#1	1.0394	25.312	.51838	2.0757	2.0150	2.0047
#2	1.0411	25.239	.51631	2.0759	2.0197	2.0011
#3	1.0412	25.125	.51728	2.0694	2.0117	1.9945

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.476	.51362	2.0731	1.9850	1.9055	25.494
Stddev	.140	.00106	.0026	.0100	.0090	.106
%RSD	.27810	.20575	.12315	.50276	.47210	.41484

#1	50.614	.51425	2.0752	1.9739	1.9117	25.604
#2	50.481	.51421	2.0738	1.9933	1.9096	25.486
#3	50.333	.51240	2.0702	1.9877	1.8952	25.393

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 10:05:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.07</b>	<b>2.0186</b>	<b>50.081</b>	<b>1.8521</b>	<b>1.9818</b>	<b>129.41</b>
Stddev	.16	.0033	.146	.0055	.0045	.13
%RSD	.12571	.16236	.29242	.29649	.22697	.10301

#1	126.24	2.0197	50.192	1.8558	1.9870	129.44
#2	126.07	2.0212	50.135	1.8548	1.9795	129.52
#3	125.92	2.0149	49.915	1.8458	1.9790	129.26

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0592</b>	<b>.50737</b>	<b>.50816</b>	<b>.51768</b>	<b>2.0468</b>	<b>1.9205</b>
Stddev	.0027	.00199	.00194	.00097	.0058	.0038
%RSD	.13231	.39148	.38189	.18699	.28348	.20009

#1	2.0616	.50853	.51036	.51813	2.0527	1.9248
#2	2.0598	.50851	.50739	.51656	2.0411	1.9193
#3	2.0562	.50508	.50671	.51833	2.0467	1.9173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 10:05:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9457	1.9173	.97076	2.1495	1.9657
Stddev	.0071	.0065	.00253	.0059	.0042
%RSD	.36581	.34017	.26015	.27410	.21369

#1	1.9469	1.9195	.97222	2.1465	1.9705
#2	1.9521	1.9225	.97221	2.1458	1.9629
#3	1.9381	1.9100	.96784	2.1563	1.9637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2419.0	4368.7	60975.	11281.
Stddev	3.5	10.4	143.	38.
%RSD	.14339	.23721	.23508	.34090

#1	2415.6	4359.7	61107.	11257.
#2	2418.9	4366.3	60822.	11260.
#3	2422.5	4380.0	60995.	11325.

Sample Name: CCB5      Acquired: 10/28/2014 10:10:07      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00266	.00082	.00321	.00010	.00011
Stddev	.00019	.00496	.00173	.00008	.00009	.00002
%RSD	250.97	186.25	211.17	2.3947	85.031	19.037

#1	-.00010	.00164	.00276	.00323	.00013	.00012
#2	.00005	-.00808	-.00059	.00328	.00001	.00008
#3	.00028	-.00155	.00030	.00313	.00017	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00942	.00004	.00009	.00017	.00047	.00221
Stddev	.00301	.00011	.00013	.00038	.00047	.00208
%RSD	31.930	260.87	146.95	222.22	99.162	93.930

#1	-.01282	.00013	.00013	.00031	.00088	.00098
#2	-.00710	-.00008	.00020	-.00026	.00057	.00105
#3	-.00834	.00006	-.00006	.00046	-.00004	.00461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB5      Acquired: 10/28/2014 10:10:07      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03237</b>	<b>-.00118</b>	<b>.02264</b>	<b>.00007</b>	<b>.00109</b>	<b>.00755</b>
Stddev	.02139	.00104	.00410	.00003	.00029	.00346
%RSD	66.079	87.833	18.126	36.315	26.387	45.813

#1	<b>-.01864</b>	<b>-.00005</b>	<b>.02643</b>	<b>.00009</b>	<b>.00137</b>	<b>.01145</b>
#2	<b>-.05702</b>	<b>-.00140</b>	<b>.01828</b>	<b>.00004</b>	<b>.00109</b>	<b>.00634</b>
#3	<b>-.02146</b>	<b>-.00209</b>	<b>.02322</b>	<b>.00008</b>	<b>.00080</b>	<b>.00485</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00026</b>	<b>-.00012</b>	<b>-.00029</b>	<b>-.00053</b>	<b>-.00135</b>	<b>.00018</b>
Stddev	.00015	.00035	.00147	.00143	.00299	.00054
%RSD	57.129	304.81	503.00	271.64	222.21	293.85

#1	<b>.00034</b>	<b>-.00004</b>	<b>-.00061</b>	<b>.00068</b>	<b>.00207</b>	<b>-.00042</b>
#2	<b>.00009</b>	<b>-.00050</b>	<b>.00131</b>	<b>-.00211</b>	<b>-.00258</b>	<b>.00062</b>
#3	<b>.00035</b>	<b>.00019</b>	<b>-.00159</b>	<b>-.00015</b>	<b>-.00353</b>	<b>.00035</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB5      Acquired: 10/28/2014 10:10:07      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00154</b>	<b>.00017</b>	<b>.00109</b>	<b>-.00164</b>	<b>-.00024</b>
Stddev	.00190	.00005	.00096	.00166	.00012
%RSD	123.01	32.159	88.579	101.22	49.818

#1	<b>-.00333</b>	<b>.00011</b>	<b>.00001</b>	<b>-.00328</b>	<b>-.00018</b>
#2	<b>-.00175</b>	<b>.00019</b>	<b>.00187</b>	<b>-.00169</b>	<b>-.00037</b>
#3	<b>.00045</b>	<b>.00021</b>	<b>.00138</b>	<b>.00005</b>	<b>-.00016</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2941.2</b>	<b>4616.2</b>	<b>65627.</b>	<b>11509.</b>
Stddev	4.2	9.8	110.	7.
%RSD	.14421	.21260	.16696	.05734

#1	2936.5	4606.9	65728.	11503.
#2	2942.1	4615.2	65642.	11516.
#3	2944.8	4626.5	65510.	11507.

Sample Name: MB 180-122792/1-A      Acquired: 10/28/2014 10:16:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00137	-.00097	.00233	.00013	.00006
Stddev	.00015	.01971	.00096	.00042	.00006	.00004
%RSD	964.41	1434.5	99.766	18.183	44.947	68.838

#1	.00015	.01253	-.00155	.00270	.00018	.00009
#2	-.00014	.00728	.00015	.00243	.00016	.00001
#3	.00004	-.02393	-.00149	.00187	.00006	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00700	.00018	-.00013	.00057	.00097	.00403
Stddev	.00178	.00012	.00014	.00037	.00040	.00104
%RSD	25.447	69.157	106.65	64.468	41.349	25.871

#1	.00494	.00025	-.00017	.00069	.00128	.00317
#2	.00808	.00004	-.00024	.00016	.00110	.00373
#3	.00796	.00025	.00003	.00086	.00052	.00519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122792/1-A      Acquired: 10/28/2014 10:16:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.01942</b>	<b>-.00168</b>	<b>.01469</b>	<b>.00011</b>	<b>-.00005</b>	<b>.02174</b>
Stddev	.01034	.00093	.03268	.00001	.00010	.00448
%RSD	53.212	55.147	222.41	11.207	221.72	20.593

#1	<b>-.02497</b>	<b>-.00124</b>	<b>-.02089</b>	<b>.00010</b>	<b>.00002</b>	<b>.02330</b>
#2	<b>-.02580</b>	<b>-.00106</b>	<b>.04335</b>	<b>.00011</b>	<b>.00001</b>	<b>.01669</b>
#3	<b>-.00750</b>	<b>-.00275</b>	<b>.02162</b>	<b>.00012</b>	<b>-.00017</b>	<b>.02523</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00028</b>	<b>.00123</b>	<b>-.00034</b>	<b>-.00041</b>	<b>.01138</b>	<b>.02907</b>
Stddev	.00012	.00085	.00043	.00042	.00099	.00035
%RSD	42.871	69.373	126.55	102.48	8.6967	1.2087

#1	<b>.00022</b>	<b>.00192</b>	<b>-.00043</b>	<b>-.00068</b>	<b>.01024</b>	<b>.02914</b>
#2	<b>.00042</b>	<b>.00027</b>	<b>.00013</b>	<b>-.00062</b>	<b>.01203</b>	<b>.02869</b>
#3	<b>.00020</b>	<b>.00149</b>	<b>-.00071</b>	<b>.00007</b>	<b>.01186</b>	<b>.02938</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122792/1-A      Acquired: 10/28/2014 10:16:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.00020	-.00091	-.00172	.00776
Stddev	.00138	.00008	.00068	.00109	.00005
%RSD	153.74	36.946	75.203	63.447	.70227

#1	.00061	.00029	-.00017	-.00152	.00771
#2	.00239	.00017	-.00105	-.00289	.00775
#3	-.00032	.00015	-.00151	-.00074	.00782

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.8	4562.3	65322.	11395.
Stddev	15.2	28.3	208.	112.
%RSD	.52152	.62048	.31796	.98224

#1	2935.3	4594.8	65087.	11281.
#2	2909.2	4548.3	65482.	11400.
#3	2908.8	4543.6	65396.	11504.

Sample Name: LCS 180-122792/2-A      Acquired: 10/28/2014 10:22:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04768	1.9016	.47613	.95365	1.9089	.04778
Stddev	.00060	.0104	.00251	.00633	.0241	.00064
%RSD	1.2533	.54857	.52757	.66410	1.2640	1.3375

#1	.04796	1.9026	.47754	.95261	1.9226	.04832
#2	.04808	1.8906	.47323	.94790	1.8810	.04708
#3	.04699	1.9114	.47762	.96044	1.9230	.04794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.214	.04769	.47406	.19151	.23173	1.0054
Stddev	.633	.00015	.00194	.00156	.00176	.0176
%RSD	1.3123	.32309	.40865	.81347	.76077	1.7556

#1	48.546	.04763	.47279	.18975	.23347	1.0199
#2	47.484	.04758	.47312	.19270	.22994	.98575
#3	48.610	.04787	.47629	.19208	.23179	1.0105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCS 180-122792/2-A      Acquired: 10/28/2014 10:22:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>48.184</b>	<b>.96685</b>	<b>47.895</b>	<b>.45204</b>	<b>.95666</b>	<b>50.128</b>
Stddev	.562	.01370	.651	.00352	.00443	.631
%RSD	1.1656	1.4170	1.3587	.77802	.46279	1.2580

#1	48.317	.97512	48.261	.45350	.95509	50.426
#2	47.568	.95103	47.143	.44802	.95323	49.404
#3	48.667	.97439	48.279	.45458	.96166	50.555

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.47005</b>	<b>.45732</b>	<b>.47331</b>	<b>.47174</b>	<b>8.4395</b>	<b>1.8340</b>
Stddev	.00131	.00095	.00618	.00397	.1072	.0084
%RSD	.27911	.20770	1.3051	.84055	1.2707	.45993

#1	.46958	.45838	.47309	.47135	8.5082	1.8297
#2	.46904	.45654	.46724	.46798	8.3160	1.8287
#3	.47153	.45704	.47959	.47588	8.4944	1.8438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122792/2-A      Acquired: 10/28/2014 10:22:01      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.92677</b>	<b>.91709</b>	<b>.44794</b>	<b>.50601</b>	<b>.47139</b>
Stddev	.01599	.00556	.00205	.00234	.00266
%RSD	1.7255	.60574	.45754	.46266	.56392

#1	<b>.94085</b>	<b>.92144</b>	<b>.44823</b>	<b>.50636</b>	<b>.47050</b>
#2	<b>.90938</b>	<b>.91083</b>	<b>.44576</b>	<b>.50816</b>	<b>.46929</b>
#3	<b>.93006</b>	<b>.91901</b>	<b>.44983</b>	<b>.50352</b>	<b>.47438</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2513.5</b>	<b>4292.1</b>	<b>60803.</b>	<b>11093.</b>
Stddev	7.3	17.7	187.	105.
%RSD	.28856	.41284	.30806	.94643

#1	2511.8	4284.8	61013.	11054.
#2	2521.4	4312.3	60653.	11211.
#3	2507.2	4279.1	60743.	11012.

Sample Name: 180-37995-A-1-A      Acquired: 10/28/2014 10:26:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01869	108.96	.01131	.02162	.10607	.00016
Stddev	.00048	2.22	.00160	.00012	.00218	.00002
%RSD	2.5629	2.0341	14.133	.57276	2.0575	13.438

#1	.01814	108.01	.01129	.02148	.10522	.00014
#2	.01906	107.37	.00973	.02172	.10444	.00016
#3	.01886	111.49	.01292	.02165	.10855	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.344	.08056	.00425	.03774	1.5208	13.848
Stddev	.363	.00008	.00023	.00029	.0257	.286
%RSD	1.8745	.09903	5.3630	.77609	1.6899	2.0646

#1	19.211	.08047	.00428	.03741	1.5087	13.718
#2	19.067	.08061	.00401	.03783	1.5034	13.651
#3	19.755	.08060	.00446	.03798	1.5503	14.176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-A      Acquired: 10/28/2014 10:26:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.9589	.00223	2.8717	.12501	.06694	1.1581
Stddev	.1470	.00008	.0733	.00178	.00009	.0317
%RSD	2.4677	3.5930	2.5520	1.4204	.13005	2.7390

#1	5.8670	.00222	2.8729	.12392	.06701	1.1426
#2	5.8811	.00215	2.7979	.12405	.06684	1.1371
#3	6.1284	.00231	2.9444	.12706	.06696	1.1946

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03993	.41514	.25190	.00735	2.9839	.14271
Stddev	.00066	.00129	.00337	.00095	.0699	.00121
%RSD	1.6503	.31146	1.3372	12.869	2.3421	.85076

#1	.04001	.41605	.24863	.00699	2.9253	.14389
#2	.03924	.41572	.25536	.00663	2.9651	.14277
#3	.04055	.41366	.25173	.00842	3.0612	.14147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-A      Acquired: 10/28/2014 10:26:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04602	.14905	-.00188	.02031	7.1557
Stddev	.00201	.00386	.00105	.00004	.0061
%RSD	4.3649	2.5883	55.758	.20780	.08539

#1	.04566	.14795	-.00239	.02027	7.1613
#2	.04818	.14587	-.00258	.02035	7.1492
#3	.04421	.15334	-.00067	.02031	7.1566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2668.3	4619.8	64431.	11539.
Stddev	4.6	5.1	183.	197.
%RSD	.17170	.11062	.28388	1.7075

#1	2663.8	4615.5	64642.	11606.
#2	2668.2	4618.4	64335.	11693.
#3	2673.0	4625.5	64317.	11317.

Sample Name: 180-37995-A-1-A SD@5      Acquired: 10/28/2014 10:31:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00390	21.869	.00261	.00482	.02101	.00001
Stddev	.00019	.023	.00061	.00026	.00027	.00005
%RSD	4.9406	.10501	23.493	5.4375	1.2833	395.63

#1	.00411	21.858	.00322	.00511	.02128	.00007
#2	.00386	21.854	.00199	.00460	.02074	-.00002
#3	.00373	21.895	.00263	.00474	.02101	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9056	.01642	.00077	.00761	.31262	2.8233
Stddev	.0104	.00012	.00020	.00018	.00051	.0148
%RSD	.26503	.74970	26.420	2.3557	.16159	.52386

#1	3.9153	.01650	.00098	.00764	.31254	2.8390
#2	3.9069	.01648	.00076	.00741	.31216	2.8096
#3	3.8947	.01628	.00058	.00777	.31316	2.8215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-A SD@5      Acquired: 10/28/2014 10:31:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.1228</b>	<b>-.00014</b>	<b>.59891</b>	<b>.02655</b>	<b>.01313</b>	<b>.23146</b>
Stddev	.0089	.00107	.01389	.00004	.00006	.00656
%RSD	.79050	743.68	2.3199	.14281	.46993	2.8360

#1	1.1159	-.00043	.60717	.02657	.01308	.22937
#2	1.1328	-.00105	.60669	.02657	.01320	.22619
#3	1.1198	.00104	.58287	.02650	.01311	.23881

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00809</b>	<b>.08417</b>	<b>.05239</b>	<b>-.00001</b>	<b>.61644</b>	<b>.03004</b>
Stddev	.00027	.00004	.00085	.00164	.01169	.00069
%RSD	3.3224	.05030	1.6253	27018.	1.8959	2.2863

#1	.00839	.08416	.05241	-.00051	.62967	.03041
#2	.00788	.08412	.05153	-.00134	.60752	.02925
#3	.00799	.08421	.05323	.00183	.61212	.03046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-A SD@5      Acquired: 10/28/2014 10:31:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01260	.03188	-.00065	.00170	1.4886
Stddev	.00292	.00064	.00093	.00032	.0024
%RSD	23.173	2.0037	142.45	18.641	.15873

#1	.01435	.03117	-.00114	.00163	1.4867
#2	.00923	.03208	-.00123	.00142	1.4912
#3	.01423	.03239	.00042	.00204	1.4878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2869.8	4697.4	66357.	11474.
Stddev	1.5	7.9	194.	11.
%RSD	.05312	.16760	.29254	.09282

#1	2868.4	4695.5	66580.	11482.
#2	2869.6	4706.1	66224.	11462.
#3	2871.4	4690.7	66266.	11479.



Sample Name: 180-37995-A-1-B MS      Acquired: 10/28/2014 10:36:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06896	132.05	.46286	.92529	1.9525	.04516
Stddev	.00035	.05	.00326	.00177	.0015	.00016
%RSD	.50920	.04075	.70527	.19179	.07517	.35055

#1	.06855	132.10	.46039	.92715	1.9509	.04534
#2	.06919	131.99	.46656	.92510	1.9531	.04505
#3	.06913	132.06	.46162	.92362	1.9536	.04508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	63.038	.14261	.46631	.21134	1.3366	17.555
Stddev	.129	.00044	.00119	.00109	.0064	.064
%RSD	.20446	.30854	.25480	.51736	.47864	.36459

#1	63.184	.14309	.46727	.21020	1.3439	17.614
#2	62.987	.14223	.46668	.21144	1.3320	17.487
#3	62.942	.14251	.46498	.21238	1.3339	17.566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-B MS      Acquired: 10/28/2014 10:36:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>52.599</b>	<b>.93104</b>	<b>48.151</b>	<b>.54959</b>	<b>.95873</b>	<b>49.040</b>
Stddev	.017	.00323	.109	.00270	.00132	.058
%RSD	.03300	.34641	.22639	.49158	.13793	.11919

#1	52.591	.92980	48.256	.55259	.96023	49.048
#2	52.619	.92861	48.038	.54735	.95823	48.978
#3	52.588	.93470	48.158	.54882	.95774	49.094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.49910</b>	<b>.94077</b>	<b>.73076</b>	<b>.44874</b>	<b>7.7620</b>	<b>1.7229</b>
Stddev	.00088	.00106	.00249	.00306	.0283	.0043
%RSD	.17672	.11296	.34078	.68120	.36486	.24711

#1	.50012	.93965	.72883	.44649	7.7653	1.7275
#2	.49855	.94089	.73357	.44751	7.7885	1.7222
#3	.49864	.94176	.72987	.45222	7.7322	1.7190

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-B MS      Acquired: 10/28/2014 10:36:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.92740</b>	<b>.98603</b>	<b>.42530</b>	<b>.50282</b>	<b>8.8072</b>
Stddev	.00848	.00176	.00382	.00177	.0201
%RSD	.91446	.17804	.89810	.35274	.22805

#1	.93519	.98727	.42301	.50200	8.8287
#2	.92863	.98402	.42971	.50160	8.8040
#3	.91837	.98680	.42319	.50486	8.7889

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2431.9</b>	<b>4375.8</b>	<b>61155.</b>	<b>11312.</b>
Stddev	5.6	11.7	175.	43.
%RSD	.22917	.26741	.28638	.37683

#1	2425.5	4362.3	61267.	11263.
#2	2435.5	4381.2	60953.	11332.
#3	2434.7	4383.8	61245.	11341.

Sample Name: 180-37995-A-1-C MSD      Acquired: 10/28/2014 10:41:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06910	127.79	.46883	.95082	1.9658	.04548
Stddev	.00023	.35	.00257	.00293	.0034	.00006
%RSD	.33761	.27345	.54727	.30812	.17022	.13557

#1	.06895	127.55	.47179	.95365	1.9625	.04541
#2	.06899	128.19	.46722	.94780	1.9657	.04549
#3	.06937	127.62	.46749	.95101	1.9691	.04553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.388	.14090	.47158	.21053	3.7733	17.118
Stddev	.294	.00017	.00064	.00181	.0371	.089
%RSD	.47158	.11774	.13583	.85832	.98213	.52005

#1	62.199	.14107	.47110	.21006	3.7567	17.114
#2	62.727	.14074	.47134	.20901	3.8158	17.209
#3	62.239	.14088	.47231	.21253	3.7475	17.031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-C MSD      Acquired: 10/28/2014 10:41:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>52.389</b>	<b>.93918</b>	<b>48.245</b>	<b>.54607</b>	<b>.97007</b>	<b>49.309</b>
Stddev	.072	.00182	.214	.00456	.00197	.063
%RSD	.13719	.19398	.44309	.83465	.20308	.12779

#1	52.308	.93756	48.173	.54387	.97197	49.238
#2	52.444	.93883	48.486	.55131	.96804	49.331
#3	52.415	.94115	48.077	.54303	.97021	49.358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.50336</b>	<b>.93811</b>	<b>.73614</b>	<b>.45312</b>	<b>8.7771</b>	<b>1.6453</b>
Stddev	.00121	.00274	.00364	.00167	.0644	.0021
%RSD	.23975	.29209	.49464	.36966	.73329	.12573

#1	.50252	.94011	.74032	.45427	8.7412	1.6430
#2	.50282	.93922	.73363	.45120	8.8515	1.6457
#3	.50474	.93498	.73448	.45390	8.7388	1.6471

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-C MSD      Acquired: 10/28/2014 10:41:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.93152</b>	<b>.99195</b>	<b>.43275</b>	<b>.50402</b>	<b>8.6269</b>
Stddev	.00610	.00983	.00187	.00630	.0185
%RSD	.65499	.99092	.43267	1.2492	.21453

#1	<b>.92908</b>	<b>.98434</b>	<b>.43394</b>	<b>.50724</b>	<b>8.6081</b>
#2	<b>.93846</b>	<b>1.0031</b>	<b>.43373</b>	<b>.49677</b>	<b>8.6451</b>
#3	<b>.92701</b>	<b>.98847</b>	<b>.43060</b>	<b>.50806</b>	<b>8.6276</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2421.7</b>	<b>4368.2</b>	<b>61119.</b>	<b>11337.</b>
Stddev	6.0	16.6	235.	97.
%RSD	.24946	.37921	.38420	.85849

#1	<b>2417.3</b>	<b>4351.6</b>	<b>61165.</b>	<b>11373.</b>
#2	<b>2428.6</b>	<b>4384.7</b>	<b>61328.</b>	<b>11227.</b>
#3	<b>2419.2</b>	<b>4368.3</b>	<b>60865.</b>	<b>11411.</b>

Sample Name: 180-37995-A-1-A PDS      Acquired: 10/28/2014 10:46:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06800	108.08	.49956	1.0094	2.1029	.04903
Stddev	.00034	.13	.00338	.0017	.0010	.00008
%RSD	.49442	.12377	.67633	.16406	.04679	.16523

#1	.06761	108.03	.50281	1.0109	2.1021	.04894
#2	.06819	107.97	.49607	1.0098	2.1040	.04909
#3	.06820	108.23	.49980	1.0076	2.1027	.04906

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.898	.12928	.50549	.22955	1.6701	14.324
Stddev	.088	.00018	.00038	.00036	.0115	.009
%RSD	.12922	.14068	.07554	.15691	.69009	.06251

#1	67.976	.12949	.50578	.22994	1.6817	14.319
#2	67.803	.12919	.50506	.22950	1.6587	14.334
#3	67.915	.12916	.50563	.22922	1.6699	14.319

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37995-A-1-A PDS      Acquired: 10/28/2014 10:46:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>55.333</b>	<b>1.0146</b>	<b>51.681</b>	<b>.57420</b>	<b>1.0438</b>	<b>52.740</b>
Stddev	.047	.0023	.068	.00180	.0007	.065
%RSD	.08483	.22469	.13103	.31342	.06881	.12236

#1	55.319	1.0122	51.698	.57480	1.0446	52.735
#2	55.385	1.0149	51.606	.57218	1.0437	52.678
#3	55.294	1.0167	51.739	.57563	1.0431	52.807

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.53638</b>	<b>.89152</b>	<b>.74694</b>	<b>.49806</b>	<b>12.943</b>	<b>1.9831</b>
Stddev	.00104	.00227	.00182	.00405	.013	.0032
%RSD	.19364	.25490	.24300	.81248	.10149	.16364

#1	.53628	.88933	.74874	.50189	12.929	1.9868
#2	.53539	.89138	.74511	.49847	12.955	1.9820
#3	.53746	.89386	.74697	.49383	12.947	1.9806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37995-A-1-A PDS      Acquired: 10/28/2014 10:46:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99819	1.0926	.46563	.53560	7.3770
Stddev	.00385	.0038	.00309	.00382	.0091
%RSD	.38558	.34749	.66388	.71402	.12271

#1	.99381	1.0949	.46861	.53254	7.3875
#2	1.0011	1.0883	.46244	.53989	7.3722
#3	.99969	1.0948	.46585	.53438	7.3714

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2441.3	4377.9	61414.	11246.
Stddev	1.3	6.6	58.	44.
%RSD	.05245	.14982	.09421	.39240

#1	2440.0	4374.7	61479.	11225.
#2	2441.5	4373.6	61397.	11296.
#3	2442.5	4385.5	61367.	11216.

Sample Name: 180-38004-A-1-A      Acquired: 10/28/2014 10:51:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	1.3803	.00221	.00993	.10474	.00011
Stddev	.00019	.0197	.00124	.00053	.00025	.00004
%RSD	32.174	1.4267	56.096	5.2961	.23767	39.248

#1	.00048	1.3811	.00149	.01053	.10486	.00008
#2	.00082	1.3603	.00150	.00958	.10445	.00009
#3	.00050	1.3997	.00364	.00967	.10490	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8282	.00048	.00246	.00663	.10857	6.3930
Stddev	.0259	.00008	.00024	.00014	.00086	.0373
%RSD	.53663	16.961	9.5608	2.0883	.78812	.58308

#1	4.8577	.00058	.00219	.00662	.10952	6.4170
#2	4.8091	.00045	.00258	.00649	.10834	6.4120
#3	4.8178	.00042	.00261	.00677	.10785	6.3501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38004-A-1-A      Acquired: 10/28/2014 10:51:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.2971</b>	<b>-0.00100</b>	<b>1.1518</b>	<b>.57241</b>	<b>.00193</b>	<b>.73954</b>
Stddev	.0209	.00041	.0025	.00281	.00012	.00323
%RSD	.90943	41.057	.22001	.49116	6.4502	.43737

#1	<b>2.3120</b>	<b>-0.00057</b>	<b>1.1540</b>	<b>.57552</b>	<b>.00180</b>	<b>.73623</b>
#2	<b>2.2732</b>	<b>-0.00138</b>	<b>1.1491</b>	<b>.57166</b>	<b>.00205</b>	<b>.74269</b>
#3	<b>2.3060</b>	<b>-0.00105</b>	<b>1.1524</b>	<b>.57005</b>	<b>.00195</b>	<b>.73968</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00566</b>	<b>.01362</b>	<b>.00149</b>	<b>.00230</b>	<b>1.0712</b>	<b>.02910</b>
Stddev	.00030	.00076	.00041	.00107	.0132	.00064
%RSD	5.2296	5.5981	27.808	46.482	1.2349	2.1950

#1	<b>.00587</b>	<b>.01360</b>	<b>.00196</b>	<b>.00350</b>	<b>1.0667</b>	<b>.02948</b>
#2	<b>.00532</b>	<b>.01439</b>	<b>.00116</b>	<b>.00143</b>	<b>1.0861</b>	<b>.02837</b>
#3	<b>.00578</b>	<b>.01286</b>	<b>.00135</b>	<b>.00198</b>	<b>1.0608</b>	<b>.02946</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-38004-A-1-A      Acquired: 10/28/2014 10:51:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02820	.05901	-.00003	.00135	.18971
Stddev	.00197	.00086	.00008	.00244	.00037
%RSD	6.9710	1.4636	287.74	181.05	.19543

#1	.03016	.05922	-.00012	.00123	.18929
#2	.02623	.05806	.00005	.00384	.18997
#3	.02822	.05975	-.00003	-.00103	.18989

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2890.6	4574.6	65285.	11529.
Stddev	1.2	7.6	77.	53.
%RSD	.04018	.16671	.11729	.46236

#1	2891.6	4573.0	65201.	11470.
#2	2890.9	4582.9	65350.	11543.
#3	2889.3	4567.9	65303.	11574.

Sample Name: 180-38050-A-1-B      Acquired: 10/28/2014 10:56:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00184</b>	<b>96.286</b>	<b>.06825</b>	<b>.02189</b>	<b>.80895</b>	<b>.00637</b>
Stddev	.00059	.048	.00142	.00047	.00218	.00009
%RSD	32.196	.04965	2.0862	2.1423	.26965	1.3965

#1	<b>-.00252</b>	<b>96.341</b>	<b>.06985</b>	<b>.02160</b>	<b>.80992</b>	<b>.00634</b>
#2	<b>-.00146</b>	<b>96.266</b>	<b>.06714</b>	<b>.02164</b>	<b>.81048</b>	<b>.00647</b>
#3	<b>-.00153</b>	<b>96.252</b>	<b>.06774</b>	<b>.02243</b>	<b>.80645</b>	<b>.00630</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>47.024</b>	<b>.00269</b>	<b>.12120</b>	<b>.15781</b>	<b>.21508</b>	<b>198.84</b>
Stddev	.118	.00013	.00021	.00017	.00142	1.36
%RSD	.25057	4.9012	.17666	.10673	.66172	.68398

#1	<b>46.902</b>	<b>.00281</b>	<b>.12106</b>	<b>.15774</b>	<b>.21357</b>	<b>198.07</b>
#2	<b>47.033</b>	<b>.00255</b>	<b>.12145</b>	<b>.15769</b>	<b>.21639</b>	<b>200.42</b>
#3	<b>47.137</b>	<b>.00272</b>	<b>.12110</b>	<b>.15800</b>	<b>.21527</b>	<b>198.05</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38050-A-1-B      Acquired: 10/28/2014 10:56:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>12.263</b>	<b>.13107</b>	<b>24.989</b>	<b>5.9125</b>	<b>.00395</b>	<b>1.3019</b>
Stddev	.016	.00075	.031	.0431	.00034	.0048
%RSD	.13153	.56900	.12558	.72919	8.5061	.36727

#1	12.245	.13183	24.953	5.8781	.00359	1.3061
#2	12.271	.13103	25.013	5.8986	.00426	1.3028
#3	12.274	.13034	25.000	5.9609	.00400	1.2967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26460</b>	<b>.14058</b>	<b>.00322</b>	<b>.00226</b>	<b>5.6166</b>	<b>.03679</b>
Stddev	.00049	.00159	.00213	.00183	.0276	.00021
%RSD	.18656	1.1324	65.977	80.954	.49177	.57259

#1	.26404	.14199	.00191	.00164	5.6083	.03704
#2	.26483	.13885	.00209	.00432	5.6474	.03669
#3	.26494	.14089	.00568	.00082	5.5941	.03665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38050-A-1-B      Acquired: 10/28/2014 10:56:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.22433</b>	<b>.88351</b>	<b>-.00361</b>	<b>.20036</b>	<b>.76245</b>
Stddev	.00114	.00481	.00132	.00258	.00079
%RSD	.50710	.54498	36.513	1.2862	.10355

#1	.22330	.87829	-.00209	.19974	.76319
#2	.22555	.88777	-.00431	.20320	.76253
#3	.22414	.88446	-.00442	.19816	.76162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2569.9</b>	<b>4767.7</b>	<b>67473.</b>	<b>12291.</b>
Stddev	4.4	12.1	150.	61.
%RSD	.17011	.25470	.22203	.49324

#1	2568.8	4759.6	67380.	12353.
#2	2574.7	4781.7	67394.	12289.
#3	2566.1	4761.9	67646.	12232.

Sample Name: 180-38050-A-2-B      Acquired: 10/28/2014 11:01:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00262</b>	<b>127.93</b>	<b>.06053</b>	<b>.02365</b>	<b>.98158</b>	<b>.00778</b>
Stddev	.00040	.30	.00093	.00074	.00264	.00010
%RSD	15.247	.23097	1.5320	3.1328	.26916	1.2717

#1	<b>-.00274</b>	<b>127.90</b>	<b>.05946</b>	<b>.02363</b>	<b>.98405</b>	<b>.00789</b>
#2	<b>-.00295</b>	<b>127.65</b>	<b>.06113</b>	<b>.02291</b>	<b>.97879</b>	<b>.00770</b>
#3	<b>-.00218</b>	<b>128.24</b>	<b>.06099</b>	<b>.02439</b>	<b>.98188</b>	<b>.00776</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>35.179</b>	<b>.00271</b>	<b>.13201</b>	<b>.19314</b>	<b>.23700</b>	<b>269.89</b>
Stddev	.154	.00017	.00031	.00096	.00092	2.27
%RSD	.43838	6.3085	.23558	.49848	.38886	.84209

#1	<b>35.135</b>	<b>.00257</b>	<b>.13166</b>	<b>.19293</b>	<b>.23599</b>	<b>267.29</b>
#2	<b>35.053</b>	<b>.00290</b>	<b>.13225</b>	<b>.19418</b>	<b>.23780</b>	<b>270.91</b>
#3	<b>35.351</b>	<b>.00265</b>	<b>.13212</b>	<b>.19229</b>	<b>.23720</b>	<b>271.47</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-38050-A-2-B      Acquired: 10/28/2014 11:01:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>12.545</b>	<b>.16207</b>	<b>29.027</b>	<b>5.4600</b>	<b>.00680</b>	<b>7.5598</b>
Stddev	.019	.00122	.142	.0156	.00032	.0177
%RSD	.14924	.75295	.48894	.28651	4.7455	.23417

#1	12.536	.16222	28.948	5.4499	.00650	7.5777
#2	12.532	.16321	28.942	5.4521	.00714	7.5423
#3	12.566	.16079	29.191	5.4780	.00676	7.5594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26707</b>	<b>.17508</b>	<b>.00426</b>	<b>.00528</b>	<b>6.0582</b>	<b>.03862</b>
Stddev	.00061	.00119	.00101	.00067	.0210	.00067
%RSD	.22697	.68226	23.732	12.741	.34731	1.7340

#1	.26775	.17516	.00443	.00484	6.0464	.03932
#2	.26659	.17624	.00517	.00493	6.0456	.03799
#3	.26686	.17385	.00317	.00605	6.0824	.03856

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38050-A-2-B      Acquired: 10/28/2014 11:01:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.18565</b>	<b>1.0848</b>	<b>-.00388</b>	<b>.25781</b>	<b>.83874</b>
Stddev	.00176	.0049	.00294	.00565	.00213
%RSD	.94981	.44835	75.705	2.1897	.25391

#1	.18615	1.0801	-.00173	.26431	.83937
#2	.18710	1.0844	-.00722	.25410	.83637
#3	.18369	1.0898	-.00268	.25503	.84048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2542.6</b>	<b>4753.9</b>	<b>66761.</b>	<b>12321.</b>
Stddev	3.8	12.2	189.	66.
%RSD	.14766	.25731	.28305	.53602

#1	2539.6	4741.2	66651.	12366.
#2	2546.8	4765.6	66653.	12352.
#3	2541.4	4754.9	66980.	12245.

Sample Name: CCV 1369837      Acquired: 10/28/2014 11:06:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0421	25.147	.52274	2.0925	2.0263	1.9893
Stddev	.0029	.049	.00324	.0017	.0047	.0065
%RSD	.27885	.19297	.62018	.08308	.23443	.32549

#1	1.0414	25.091	.52027	2.0924	2.0296	1.9957
#2	1.0452	25.171	.52153	2.0909	2.0284	1.9894
#3	1.0395	25.178	.52641	2.0944	2.0209	1.9828

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.539	.51573	2.0740	1.9880	1.9028	25.169
Stddev	.089	.00045	.0015	.0054	.0121	.140
%RSD	.17519	.08781	.07179	.27039	.63432	.55813

#1	50.507	.51564	2.0749	1.9919	1.8896	25.289
#2	50.639	.51532	2.0747	1.9903	1.9134	25.203
#3	50.471	.51621	2.0722	1.9819	1.9054	25.014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 11:06:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.71	2.0207	49.710	1.8327	2.0022	129.98
Stddev	.10	.0031	.120	.0105	.0008	.09
%RSD	.07846	.15213	.24156	.57458	.03803	.06686

#1	126.62	2.0239	49.800	1.8231	2.0028	129.92
#2	126.70	2.0177	49.756	1.8439	2.0013	129.94
#3	126.82	2.0206	49.573	1.8311	2.0025	130.08

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0681	.51254	.51027	.52265	2.0582	1.9413
Stddev	.0019	.00262	.00056	.00177	.0112	.0022
%RSD	.09042	.51084	.10989	.33881	.54243	.11318

#1	2.0695	.51277	.50962	.52267	2.0494	1.9437
#2	2.0689	.51504	.51057	.52086	2.0707	1.9408
#3	2.0660	.50982	.51062	.52440	2.0544	1.9394

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 11:06:37      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.9516</b>	<b>1.9276</b>	<b>.98010</b>	<b>2.1555</b>	<b>1.9703</b>
Stddev	.0088	.0075	.00210	.0143	.0017
%RSD	.45027	.38717	.21457	.66138	.08435

#1	1.9615	1.9192	.98239	2.1712	1.9722
#2	1.9488	1.9333	.97967	2.1521	1.9691
#3	1.9446	1.9304	.97825	2.1433	1.9697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2400.6</b>	<b>4327.8</b>	<b>60410.</b>	<b>11288.</b>
Stddev	2.6	5.7	153.	37.
%RSD	.10691	.13168	.25343	.32858

#1	2403.3	4332.0	60246.	11324.
#2	2400.1	4330.2	60435.	11250.
#3	2398.3	4321.3	60549.	11290.

Sample Name: CCB6      Acquired: 10/28/2014 11:11:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.00179	.00097	.00144	.00010	.00012
Stddev	.00021	.00650	.00127	.00041	.00010	.00007
%RSD	180.21	364.22	130.39	28.601	99.415	57.137

#1	-.00015	.00524	-.00021	.00187	.00014	.00007
#2	-.00031	-.00759	.00231	.00140	.00016	.00020
#3	.00011	-.00300	.00082	.00105	-.00001	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00934	.00002	.00010	.00016	.00103	.00194
Stddev	.00251	.00005	.00021	.00016	.00037	.00111
%RSD	26.851	184.95	209.42	102.83	36.161	57.163

#1	-.00921	-.00002	.00030	.00026	.00065	.00243
#2	-.01191	.00002	-.00011	.00024	.00106	.00273
#3	-.00690	.00007	.00011	-.00003	.00140	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB6      Acquired: 10/28/2014 11:11:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01757	-.00149	-.00009	.00009	.00129	.00546
Stddev	.00969	.00105	.01066	.00002	.00020	.00182
%RSD	55.170	70.664	11648.	19.733	15.566	33.264

#1	.01357	-.00030	.01184	.00010	.00152	.00338
#2	.01052	-.00229	-.00343	.00007	.00120	.00673
#3	.02862	-.00187	-.00868	.00009	.00115	.00627

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00054	.00136	.00190	.00926	-.00001
Stddev	.00032	.00062	.00129	.00098	.00291	.00029
%RSD	747.05	113.97	95.298	51.250	31.431	2400.3

#1	.00041	.00103	.00192	.00125	.01259	.00031
#2	-.00019	.00074	.00227	.00144	.00719	-.00025
#3	-.00009	-.00015	-.00012	.00303	.00801	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB6      Acquired: 10/28/2014 11:11:25      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00306	.00022	.00151	-.00029	-.00028
Stddev	.00167	.00005	.00069	.00019	.00011
%RSD	54.332	22.626	45.746	66.728	37.677

#1	.00438	.00026	.00230	-.00018	-.00032
#2	.00119	.00016	.00100	-.00018	-.00016
#3	.00362	.00023	.00124	-.00051	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.1	4610.5	65775.	11368.
Stddev	2.1	9.1	90.	60.
%RSD	.07091	.19687	.13705	.52440

#1	2951.2	4616.9	65707.	11348.
#2	2949.0	4614.5	65741.	11320.
#3	2947.0	4600.1	65877.	11435.



Sample Name: 180-38050-A-3-B      Acquired: 10/28/2014 11:16:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00264</b>	<b>116.33</b>	<b>.03620</b>	<b>.01834</b>	<b>.79148</b>	<b>.00891</b>
Stddev	.00022	.12	.00135	.00028	.00122	.00004
%RSD	8.2759	.10187	3.7325	1.5224	.15365	.49312

#1	<b>-.00285</b>	<b>116.33</b>	<b>.03758</b>	<b>.01803</b>	<b>.79008</b>	<b>.00886</b>
#2	<b>-.00266</b>	<b>116.22</b>	<b>.03614</b>	<b>.01840</b>	<b>.79210</b>	<b>.00894</b>
#3	<b>-.00242</b>	<b>116.45</b>	<b>.03488</b>	<b>.01858</b>	<b>.79226</b>	<b>.00894</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>20.829</b>	<b>.00240</b>	<b>.14254</b>	<b>.18251</b>	<b>.17130</b>	<b>262.24</b>
Stddev	.056	.00014	.00097	.00055	.00024	1.87
%RSD	.26867	5.7980	.67722	.30000	.14021	.71361

#1	<b>20.873</b>	<b>.00256</b>	<b>.14172</b>	<b>.18245</b>	<b>.17152</b>	<b>264.31</b>
#2	<b>20.766</b>	<b>.00238</b>	<b>.14228</b>	<b>.18308</b>	<b>.17104</b>	<b>261.75</b>
#3	<b>20.848</b>	<b>.00228</b>	<b>.14360</b>	<b>.18199</b>	<b>.17134</b>	<b>260.66</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38050-A-3-B      Acquired: 10/28/2014 11:16:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>14.324</b>	<b>.18023</b>	<b>28.941</b>	<b>5.9475</b>	<b>.00311</b>	<b>.92858</b>
Stddev	.022	.00052	.066	.0262	.00015	.00088
%RSD	.15527	.29033	.22744	.44007	4.8314	.09432

#1	14.311	.18016	28.993	5.9629	.00318	.92954
#2	14.312	.18078	28.867	5.9173	.00294	.92836
#3	14.350	.17974	28.962	5.9624	.00322	.92784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28478</b>	<b>.14252</b>	<b>.00231</b>	<b>.00312</b>	<b>4.5623</b>	<b>.02658</b>
Stddev	.00094	.00053	.00127	.00261	.0096	.00048
%RSD	.33010	.36847	55.048	83.765	.20957	1.8060

#1	.28575	.14301	.00084	.00273	4.5727	.02679
#2	.28387	.14197	.00305	.00072	4.5606	.02603
#3	.28472	.14258	.00304	.00590	4.5538	.02692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38050-A-3-B      Acquired: 10/28/2014 11:16:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.17227</b>	<b>.80117</b>	<b>-.00456</b>	<b>.20749</b>	<b>.64813</b>
Stddev	.00165	.00502	.00199	.00218	.00122
%RSD	.95663	.62679	43.583	1.0530	.18768

#1	.17273	.80620	-.00248	.20663	.64953
#2	.17044	.79615	-.00477	.20998	.64729
#3	.17364	.80115	-.00643	.20587	.64758

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2566.1</b>	<b>4877.1</b>	<b>68375.</b>	<b>12715.</b>
Stddev	8.6	16.3	130.	37.
%RSD	.33436	.33381	.18944	.29142

#1	2556.3	4859.7	68298.	12674.
#2	2569.3	4879.7	68302.	12746.
#3	2572.5	4891.9	68525.	12724.

Sample Name: 180-37961-A-1-F      Acquired: 10/28/2014 11:21:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00046</b>	<b>3.5717</b>	<b>.02645</b>	<b>.02470</b>	<b>.25655</b>	<b>.01157</b>
Stddev	.00030	.0142	.00167	.00010	.00037	.00006
%RSD	65.097	.39794	6.3095	.41517	.14466	.51192

#1	<b>-.00024</b>	<b>3.5599</b>	<b>.02528</b>	<b>.02460</b>	<b>.25625</b>	<b>.01164</b>
#2	<b>-.00081</b>	<b>3.5676</b>	<b>.02836</b>	<b>.02480</b>	<b>.25643</b>	<b>.01152</b>
#3	<b>-.00035</b>	<b>3.5875</b>	<b>.02571</b>	<b>.02470</b>	<b>.25696</b>	<b>.01155</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.8614</b>	<b>.00015</b>	<b>.02920</b>	<b>.01282</b>	<b>.10401</b>	<b>12.878</b>
Stddev	.0043	.00006	.00016	.00029	.00080	.045
%RSD	.23221	42.919	.55290	2.2562	.77114	.34734

#1	<b>1.8586</b>	<b>.00015</b>	<b>.02920</b>	<b>.01261</b>	<b>.10336</b>	<b>12.860</b>
#2	<b>1.8591</b>	<b>.00009</b>	<b>.02904</b>	<b>.01270</b>	<b>.10377</b>	<b>12.845</b>
#3	<b>1.8663</b>	<b>.00022</b>	<b>.02936</b>	<b>.01315</b>	<b>.10490</b>	<b>12.929</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37961-A-1-F      Acquired: 10/28/2014 11:21:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.20864</b>	<b>.00340</b>	<b>.21826</b>	<b>.01010</b>	<b>.00997</b>	<b>.50690</b>
Stddev	.01569	.00040	.02279	.00003	.00003	.00305
%RSD	7.5184	11.664	10.443	.34112	.26019	.60111

#1	<b>.22045</b>	<b>.00301</b>	<b>.21950</b>	<b>.01008</b>	<b>.00995</b>	<b>.50494</b>
#2	<b>.19084</b>	<b>.00380</b>	<b>.19487</b>	<b>.01010</b>	<b>.01000</b>	<b>.51041</b>
#3	<b>.21463</b>	<b>.00339</b>	<b>.24041</b>	<b>.01014</b>	<b>.00996</b>	<b>.50534</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03790</b>	<b>.01000</b>	<b>.00078</b>	<b>.00681</b>	<b>1.6915</b>	<b>.02590</b>
Stddev	.00059	.00032	.00231	.00151	.0097	.00032
%RSD	1.5570	3.2236	297.95	22.154	.57609	1.2219

#1	<b>.03838</b>	<b>.01003</b>	<b>.00160</b>	<b>.00678</b>	<b>1.7022</b>	<b>.02556</b>
#2	<b>.03807</b>	<b>.01030</b>	<b>.00256</b>	<b>.00834</b>	<b>1.6832</b>	<b>.02618</b>
#3	<b>.03724</b>	<b>.00966</b>	<b>-.00184</b>	<b>.00532</b>	<b>1.6890</b>	<b>.02596</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37961-A-1-F      Acquired: 10/28/2014 11:21:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.25509</b>	<b>.93798</b>	<b>-.00140</b>	<b>.06787</b>	<b>.01512</b>
Stddev	.00395	.00492	.00190	.00198	.00018
%RSD	1.5482	.52493	136.10	2.9106	1.1907

#1	<b>.25243</b>	<b>.93381</b>	<b>-.00345</b>	<b>.06986</b>	<b>.01530</b>
#2	<b>.25321</b>	<b>.93670</b>	<b>.00031</b>	<b>.06783</b>	<b>.01494</b>
#3	<b>.25962</b>	<b>.94341</b>	<b>-.00105</b>	<b>.06591</b>	<b>.01514</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2882.5</b>	<b>4849.6</b>	<b>69339.</b>	<b>12017.</b>
Stddev	2.4	12.3	266.	37.
%RSD	.08474	.25310	.38333	.30814

#1	<b>2879.7</b>	<b>4841.7</b>	<b>69180.</b>	<b>12060.</b>
#2	<b>2883.5</b>	<b>4863.8</b>	<b>69191.</b>	<b>11992.</b>
#3	<b>2884.3</b>	<b>4843.4</b>	<b>69645.</b>	<b>12001.</b>

Sample Name: 180-37961-A-2-C      Acquired: 10/28/2014 11:26:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00006</b>	<b>3.9967</b>	<b>.02888</b>	<b>.02809</b>	<b>.30226</b>	<b>.01321</b>
Stddev	.00028	.0080	.00058	.00065	.00073	.00006
%RSD	438.12	.19879	2.0110	2.3140	.24038	.42168

#1	<b>-.00034</b>	<b>4.0056</b>	<b>.02842</b>	<b>.02883</b>	<b>.30262</b>	<b>.01319</b>
#2	<b>.00023</b>	<b>3.9944</b>	<b>.02869</b>	<b>.02778</b>	<b>.30274</b>	<b>.01327</b>
#3	<b>-.00008</b>	<b>3.9902</b>	<b>.02953</b>	<b>.02765</b>	<b>.30143</b>	<b>.01317</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.1673</b>	<b>.00009</b>	<b>.03358</b>	<b>.01460</b>	<b>.11767</b>	<b>14.457</b>
Stddev	.0074	.00008	.00041	.00002	.00071	.054
%RSD	.34095	81.308	1.2072	.13247	.60520	.37257

#1	<b>2.1617</b>	<b>.00011</b>	<b>.03380</b>	<b>.01459</b>	<b>.11693</b>	<b>14.425</b>
#2	<b>2.1757</b>	<b>.00001</b>	<b>.03311</b>	<b>.01462</b>	<b>.11773</b>	<b>14.519</b>
#3	<b>2.1645</b>	<b>.00016</b>	<b>.03383</b>	<b>.01459</b>	<b>.11835</b>	<b>14.427</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37961-A-2-C      Acquired: 10/28/2014 11:26:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.25298</b>	<b>.00538</b>	<b>.24070</b>	<b>.01197</b>	<b>.01082</b>	<b>.58692</b>
Stddev	.03414	.00037	.02521	.00006	.00008	.01126
%RSD	13.496	6.8369	10.474	.53342	.73765	1.9189

#1	<b>.29026</b>	<b>.00579</b>	<b>.26911</b>	<b>.01191</b>	<b>.01088</b>	<b>.57952</b>
#2	<b>.24542</b>	<b>.00525</b>	<b>.23202</b>	<b>.01204</b>	<b>.01073</b>	<b>.59988</b>
#3	<b>.22324</b>	<b>.00509</b>	<b>.22098</b>	<b>.01195</b>	<b>.01085</b>	<b>.58135</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04245</b>	<b>.01032</b>	<b>.00260</b>	<b>.00873</b>	<b>1.9499</b>	<b>.02832</b>
Stddev	.00053	.00032	.00021	.00134	.0198	.00029
%RSD	1.2391	3.0911	8.2580	15.395	1.0130	1.0094

#1	<b>.04212</b>	<b>.01018</b>	<b>.00237</b>	<b>.00745</b>	<b>1.9600</b>	<b>.02820</b>
#2	<b>.04216</b>	<b>.01069</b>	<b>.00279</b>	<b>.00861</b>	<b>1.9626</b>	<b>.02865</b>
#3	<b>.04305</b>	<b>.01010</b>	<b>.00263</b>	<b>.01013</b>	<b>1.9272</b>	<b>.02812</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37961-A-2-C      Acquired: 10/28/2014 11:26:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.29487	1.0542	-.00149	.07801	.01297
Stddev	.00367	.0042	.00097	.00104	.00002
%RSD	1.2431	.39769	65.200	1.3338	.17667

#1	.29105	1.0500	-.00053	.07883	.01297
#2	.29519	1.0542	-.00247	.07684	.01294
#3	.29836	1.0584	-.00146	.07835	.01299

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2884.1	4902.6	69966.	12124.
Stddev	16.0	20.9	262.	37.
%RSD	.55579	.42652	.37451	.30386

#1	2878.9	4888.4	69698.	12146.
#2	2902.1	4926.6	70222.	12082.
#3	2871.3	4892.8	69978.	12146.

Sample Name: 180-38062-A-1-B      Acquired: 10/28/2014 11:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00007</b>	<b>9.4143</b>	<b>.00985</b>	<b>.03644</b>	<b>.01735</b>	<b>.00460</b>
Stddev	.00018	.0141	.00027	.00026	.00005	.00009
%RSD	247.67	.14953	2.7122	.70140	.29743	1.9443

#1	<b>-.00001</b>	<b>9.4155</b>	<b>.01006</b>	<b>.03670</b>	<b>.01729</b>	<b>.00468</b>
#2	<b>.00007</b>	<b>9.3997</b>	<b>.00993</b>	<b>.03618</b>	<b>.01736</b>	<b>.00451</b>
#3	<b>-.00028</b>	<b>9.4278</b>	<b>.00955</b>	<b>.03644</b>	<b>.01739</b>	<b>.00460</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.5109</b>	<b>.00003</b>	<b>.01142</b>	<b>.04166</b>	<b>.08893</b>	<b>2.0262</b>
Stddev	.0101	.00002	.00011	.00027	.00027	.0057
%RSD	.40291	80.601	.99731	.65430	.30650	.27983

#1	<b>2.5113</b>	<b>.00002</b>	<b>.01152</b>	<b>.04196</b>	<b>.08908</b>	<b>2.0211</b>
#2	<b>2.5006</b>	<b>.00001</b>	<b>.01144</b>	<b>.04158</b>	<b>.08862</b>	<b>2.0251</b>
#3	<b>2.5209</b>	<b>.00005</b>	<b>.01129</b>	<b>.04143</b>	<b>.08910</b>	<b>2.0323</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38062-A-1-B      Acquired: 10/28/2014 11:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>25.335</b>	<b>.00631</b>	<b>1.6816</b>	<b>.00786</b>	<b>.00138</b>	<b>6.2038</b>
Stddev	.014	.00097	.0326	.00005	.00016	.0040
%RSD	.05708	15.305	1.9409	.68877	11.245	.06468

#1	25.321	.00520	1.6854	.00782	.00127	6.2082
#2	25.332	.00692	1.6472	.00784	.00156	6.2028
#3	25.350	.00681	1.7122	.00792	.00132	6.2004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04990</b>	<b>.00026</b>	<b>.00171</b>	<b>.00617</b>	<b>1.4103</b>	<b>.02783</b>
Stddev	.00039	.00053	.00246	.00073	.0039	.00067
%RSD	.78282	208.30	143.69	11.875	.27310	2.3914

#1	.04994	-.00036	-.00014	.00694	1.4143	.02860
#2	.05027	.00061	.00450	.00548	1.4066	.02740
#3	.04950	.00052	.00078	.00609	1.4100	.02750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38062-A-1-B      Acquired: 10/28/2014 11:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04525	.51311	-.00132	.08105	.00797
Stddev	.00187	.00084	.00118	.00223	.00020
%RSD	4.1434	.16324	89.119	2.7523	2.5076

#1	.04741	.51326	-.00116	.08026	.00815
#2	.04432	.51220	-.00257	.08357	.00801
#3	.04402	.51385	-.00023	.07932	.00775

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.4	4553.9	64625.	11527.
Stddev	7.4	24.1	176.	22.
%RSD	.26571	.52837	.27166	.19012

#1	2761.0	4526.5	64542.	11530.
#2	2774.5	4571.7	64827.	11548.
#3	2772.8	4563.3	64507.	11504.

Sample Name: 180-38062-A-2-A      Acquired: 10/28/2014 11:37:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	10.063	.01272	.04464	.01867	.00519
Stddev	.00015	.032	.00122	.00184	.00035	.00011
%RSD	119.48	.31449	9.6129	4.1122	1.8501	2.0462

#1	.00030	10.098	.01141	.04552	.01905	.00526
#2	.00003	10.037	.01290	.04253	.01858	.00525
#3	.00005	10.054	.01384	.04587	.01838	.00507

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1196	.00012	.01294	.04607	.10343	2.3221
Stddev	.0046	.00011	.00060	.00096	.00078	.0045
%RSD	.14833	92.784	4.6673	2.0749	.75412	.19152

#1	3.1146	.00002	.01320	.04715	.10424	2.3244
#2	3.1236	.00010	.01225	.04571	.10338	2.3170
#3	3.1206	.00024	.01337	.04534	.10268	2.3249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38062-A-2-A      Acquired: 10/28/2014 11:37:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>26.283</b>	<b>.00716</b>	<b>2.0589</b>	<b>.00888</b>	<b>.00155</b>	<b>7.8870</b>
Stddev	.141	.00042	.0154	.00004	.00014	.0553
%RSD	.53604	5.8845	.74832	.49762	8.7586	.70054

#1	26.365	.00747	2.0636	.00885	.00144	7.9405
#2	26.120	.00668	2.0417	.00893	.00151	7.8301
#3	26.364	.00732	2.0714	.00886	.00170	7.8904

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05777</b>	<b>.00191</b>	<b>.00117</b>	<b>.00796</b>	<b>1.5361</b>	<b>.02636</b>
Stddev	.00212	.00049	.00042	.00286	.0077	.00034
%RSD	3.6783	25.504	35.733	35.910	.50302	1.2880

#1	.05893	.00140	.00069	.01111	1.5450	.02638
#2	.05532	.00237	.00147	.00555	1.5321	.02600
#3	.05906	.00194	.00135	.00720	1.5313	.02668

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38062-A-2-A      Acquired: 10/28/2014 11:37:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05065	.56295	-.00184	.08710	.00797
Stddev	.00476	.00166	.00114	.00281	.00011
%RSD	9.4059	.29450	61.888	3.2212	1.3850

#1	.04767	.56112	-.00197	.09034	.00808
#2	.04814	.56339	-.00291	.08548	.00786
#3	.05615	.56435	-.00064	.08548	.00797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2755.3	4540.8	65248.	11495.
Stddev	86.5	138.7	911.	41.
%RSD	3.1404	3.0544	1.3959	.35356

#1	2711.2	4481.0	64209.	11541.
#2	2855.0	4699.3	65908.	11480.
#3	2699.7	4442.0	65627.	11464.

Sample Name: 480-70001-B-1-A      Acquired: 10/28/2014 11:42:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00163</b>	<b>140.57</b>	<b>.03187</b>	<b>.03604</b>	<b>.50756</b>	<b>.00522</b>
Stddev	.00020	.32	.00213	.00041	.00156	.00001
%RSD	12.517	.22791	6.6896	1.1341	.30707	.16032

#1	<b>-.00155</b>	<b>140.26</b>	<b>.03357</b>	<b>.03560</b>	<b>.50777</b>	<b>.00521</b>
#2	<b>-.00148</b>	<b>140.90</b>	<b>.02948</b>	<b>.03611</b>	<b>.50900</b>	<b>.00522</b>
#3	<b>-.00186</b>	<b>140.54</b>	<b>.03257</b>	<b>.03641</b>	<b>.50590</b>	<b>.00523</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>14.668</b>	<b>.00129</b>	<b>.09133</b>	<b>.16653</b>	<b>.10388</b>	<b>195.94</b>
Stddev	.051	.00017	.00031	.00032	.00055	2.55
%RSD	.34840	13.408	.33497	.19292	.53164	1.3013

#1	<b>14.610</b>	<b>.00117</b>	<b>.09110</b>	<b>.16686</b>	<b>.10327</b>	<b>196.68</b>
#2	<b>14.692</b>	<b>.00149</b>	<b>.09122</b>	<b>.16622</b>	<b>.10403</b>	<b>198.04</b>
#3	<b>14.703</b>	<b>.00122</b>	<b>.09168</b>	<b>.16651</b>	<b>.10434</b>	<b>193.10</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 480-70001-B-1-A      Acquired: 10/28/2014 11:42:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.073</b>	<b>.19352</b>	<b>38.510</b>	<b>2.7288</b>	<b>.00293</b>	<b>.88097</b>
Stddev	.015	.00047	.138	.0073	.00016	.00588
%RSD	.14547	.24034	.35767	.26725	5.3145	.66735
#1	10.076	.19298	38.356	2.7205	.00310	.87693
#2	10.057	.19376	38.622	2.7317	.00290	.88772
#3	10.086	.19382	38.552	2.7342	.00280	.87827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.16677</b>	<b>.11104</b>	<b>.00307</b>	<b>.00194</b>	<b>5.4890</b>	<b>.03558</b>
Stddev	.00053	.00158	.00139	.00151	.0425	.00048
%RSD	.31648	1.4200	45.245	77.616	.77501	1.3471
#1	.16730	.10923	.00192	.00057	5.4505	.03593
#2	.16678	.11212	.00268	.00356	5.4819	.03579
#3	.16624	.11176	.00461	.00170	5.5346	.03504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-1-A      Acquired: 10/28/2014 11:42:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10979	1.7217	-.00385	.26615	.48294
Stddev	.00082	.0030	.00124	.00051	.00102
%RSD	.74704	.17633	32.204	.19216	.21031

#1	.11069	1.7182	-.00525	.26573	.48411
#2	.10909	1.7232	-.00337	.26599	.48235
#3	.10960	1.7237	-.00291	.26672	.48235

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2558.5	4655.5	65093.	12007.
Stddev	4.0	8.5	55.	25.
%RSD	.15500	.18310	.08459	.21067

#1	2553.9	4645.7	65063.	12029.
#2	2561.0	4659.9	65157.	12012.
#3	2560.6	4661.0	65059.	11979.

Sample Name: 480-70001-B-2-A      Acquired: 10/28/2014 11:47:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00145</b>	<b>112.72</b>	<b>.05932</b>	<b>.05753</b>	<b>.83685</b>	<b>.00536</b>
Stddev	.00020	.09	.00090	.00026	.00043	.00004
%RSD	13.576	.08045	1.5178	.45682	.05170	.83586

#1	<b>-.00148</b>	<b>112.81</b>	<b>.05877</b>	<b>.05768</b>	<b>.83666</b>	<b>.00541</b>
#2	<b>-.00124</b>	<b>112.63</b>	<b>.06036</b>	<b>.05723</b>	<b>.83735</b>	<b>.00533</b>
#3	<b>-.00163</b>	<b>112.73</b>	<b>.05883</b>	<b>.05769</b>	<b>.83655</b>	<b>.00533</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>228.53</b>	<b>.00389</b>	<b>.09937</b>	<b>.20327</b>	<b>.21469</b>	<b>193.30</b>
Stddev	1.59	.00011	.00024	.00174	.00137	.69
%RSD	.69417	2.8148	.23711	.85720	.63991	.35682

#1	<b>230.36</b>	<b>.00381</b>	<b>.09943</b>	<b>.20272</b>	<b>.21550</b>	<b>192.94</b>
#2	<b>227.67</b>	<b>.00401</b>	<b>.09911</b>	<b>.20187</b>	<b>.21546</b>	<b>192.86</b>
#3	<b>227.55</b>	<b>.00384</b>	<b>.09956</b>	<b>.20522</b>	<b>.21310</b>	<b>194.09</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 480-70001-B-2-A      Acquired: 10/28/2014 11:47:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>12.823</b>	<b>.18242</b>	<b>80.298</b>	<b>5.3766</b>	<b>.00698</b>	<b>1.0124</b>
Stddev	.025	.00137	.070	.0493	.00003	.0019
%RSD	.19360	.74990	.08749	.91745	.44447	.18256

#1	12.850	.18098	80.374	5.4295	.00697	1.0122
#2	12.802	.18369	80.236	5.3319	.00696	1.0107
#3	12.816	.18260	80.284	5.3684	.00702	1.0144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.23728</b>	<b>1.2171</b>	<b>.01121</b>	<b>.00195</b>	<b>5.7111</b>	<b>.06117</b>
Stddev	.00048	.0020	.00068	.00389	.0110	.00041
%RSD	.20230	.16352	6.0269	199.98	.19294	.66922

#1	.23759	1.2164	.01198	-.00182	5.7169	.06074
#2	.23673	1.2156	.01070	.00595	5.7180	.06123
#3	.23752	1.2194	.01096	.00171	5.6984	.06155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-2-A      Acquired: 10/28/2014 11:47:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.33610</b>	<b>1.9106</b>	<b>-.00340</b>	<b>.25682</b>	<b>.90990</b>
Stddev	.00153	.0048	.00175	.00459	.00099
%RSD	.45578	.25000	51.432	1.7857	.10894

#1	.33569	1.9161	-.00460	.25663	.90916
#2	.33482	1.9079	-.00139	.25233	.91102
#3	.33780	1.9078	-.00422	.26149	.90951

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2356.8</b>	<b>4739.8</b>	<b>66484.</b>	<b>12469.</b>
Stddev	2.3	6.4	535.	57.
%RSD	.09642	.13448	.80518	.45438

#1	2358.0	4737.8	66814.	12411.
#2	2358.2	4746.9	66771.	12472.
#3	2354.2	4734.7	65866.	12524.

Sample Name: 480-70001-B-3-A      Acquired: 10/28/2014 11:52:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00202</b>	<b>157.36</b>	<b>.03975</b>	<b>.04583</b>	<b>.53648</b>	<b>.00648</b>
Stddev	.00018	.24	.00040	.00044	.00141	.00010
%RSD	8.8323	.15474	1.0127	.96649	.26370	1.5115

#1	<b>-.00194</b>	<b>157.59</b>	<b>.03976</b>	<b>.04632</b>	<b>.53803</b>	<b>.00659</b>
#2	<b>-.00222</b>	<b>157.39</b>	<b>.04015</b>	<b>.04571</b>	<b>.53526</b>	<b>.00643</b>
#3	<b>-.00189</b>	<b>157.10</b>	<b>.03934</b>	<b>.04547</b>	<b>.53615</b>	<b>.00641</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>13.945</b>	<b>.00164</b>	<b>.12419</b>	<b>.18600</b>	<b>.16533</b>	<b>221.16</b>
Stddev	.027	.00022	.00083	.00034	.00105	2.66
%RSD	.19563	13.424	.67200	.18089	.63643	1.2010

#1	<b>13.945</b>	<b>.00152</b>	<b>.12496</b>	<b>.18563</b>	<b>.16468</b>	<b>222.48</b>
#2	<b>13.973</b>	<b>.00151</b>	<b>.12429</b>	<b>.18628</b>	<b>.16654</b>	<b>222.91</b>
#3	<b>13.918</b>	<b>.00189</b>	<b>.12330</b>	<b>.18610</b>	<b>.16476</b>	<b>218.11</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-3-A      Acquired: 10/28/2014 11:52:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>13.176</b>	<b>.20523</b>	<b>44.725</b>	<b>4.4641</b>	<b>.00297</b>	<b>1.7585</b>
Stddev	.032	.00034	.186	.0222	.00040	.0069
%RSD	.24061	.16523	.41615	.49782	13.359	.39002

#1	13.185	.20492	44.802	4.4691	.00277	1.7618
#2	13.141	.20519	44.860	4.4834	.00272	1.7507
#3	13.202	.20559	44.513	4.4398	.00343	1.7632

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.20450</b>	<b>.17242</b>	<b>.00620</b>	<b>.00437</b>	<b>6.0880</b>	<b>.03473</b>
Stddev	.00093	.00203	.00141	.00232	.0266	.00010
%RSD	.45416	1.1790	22.702	53.019	.43748	.29716

#1	.20362	.17419	.00581	.00226	6.0664	.03473
#2	.20547	.17020	.00777	.00685	6.1178	.03484
#3	.20440	.17287	.00503	.00401	6.0799	.03463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-3-A      Acquired: 10/28/2014 11:52:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15901	2.1372	-.00489	.29097	.50731
Stddev	.00363	.0115	.00122	.00079	.00120
%RSD	2.2845	.54014	24.962	.27120	.23666

#1	.15878	2.1354	-.00589	.29107	.50743
#2	.16275	2.1495	-.00525	.29014	.50845
#3	.15550	2.1266	-.00353	.29171	.50606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2543.1	4721.4	65956.	12184.
Stddev	6.3	13.6	91.	63.
%RSD	.24913	.28705	.13732	.51490

#1	2541.1	4705.8	65905.	12156.
#2	2537.9	4728.6	65902.	12140.
#3	2550.1	4730.0	66060.	12256.



Sample Name: 480-70001-B-4-A      Acquired: 10/28/2014 11:57:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00071</b>	<b>127.18</b>	<b>.05728</b>	<b>.04307</b>	<b>.70154</b>	<b>.00496</b>
Stddev	.00025	.10	.00267	.00068	.00117	.00003
%RSD	35.412	.07755	4.6575	1.5682	.16675	.59470

#1	<b>-.00100</b>	<b>127.07</b>	<b>.05440</b>	<b>.04283</b>	<b>.70023</b>	<b>.00494</b>
#2	<b>-.00056</b>	<b>127.20</b>	<b>.05776</b>	<b>.04383</b>	<b>.70195</b>	<b>.00499</b>
#3	<b>-.00057</b>	<b>127.27</b>	<b>.05967</b>	<b>.04255</b>	<b>.70246</b>	<b>.00493</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>46.718</b>	<b>.01234</b>	<b>.08004</b>	<b>.18562</b>	<b>.18023</b>	<b>171.01</b>
Stddev	.121	.00007	.00047	.00036	.00066	.30
%RSD	.25799	.59408	.58201	.19471	.36523	.17280

#1	<b>46.591</b>	<b>.01231</b>	<b>.08053</b>	<b>.18556</b>	<b>.17947</b>	<b>170.68</b>
#2	<b>46.735</b>	<b>.01229</b>	<b>.08000</b>	<b>.18529</b>	<b>.18067</b>	<b>171.26</b>
#3	<b>46.830</b>	<b>.01242</b>	<b>.07960</b>	<b>.18600</b>	<b>.18054</b>	<b>171.07</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 480-70001-B-4-A      Acquired: 10/28/2014 11:57:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>9.0055</b>	<b>.16865</b>	<b>36.522</b>	<b>3.2162</b>	<b>.00645</b>	<b>.62813</b>
Stddev	.0421	.00085	.059	.0107	.00024	.00398
%RSD	.46788	.50415	.16198	.33250	3.6810	.63298

#1	8.9581	.16932	36.453	3.2041	.00618	.62547
#2	9.0386	.16769	36.554	3.2198	.00654	.63270
#3	9.0198	.16894	36.558	3.2246	.00663	.62621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.17890</b>	<b>1.3955</b>	<b>.02033</b>	<b>.00508</b>	<b>6.2138</b>	<b>.04690</b>
Stddev	.00051	.0027	.00159	.00148	.0132	.00013
%RSD	.28659	.19647	7.8160	29.151	.21246	.28647

#1	.17837	1.3924	.01900	.00644	6.2177	.04701
#2	.17940	1.3965	.01989	.00350	6.2247	.04675
#3	.17894	1.3977	.02209	.00528	6.1991	.04695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-4-A      Acquired: 10/28/2014 11:57:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.18511</b>	<b>1.6745</b>	<b>-.00362</b>	<b>.24783</b>	<b>1.2874</b>
Stddev	.00352	.0056	.00035	.00144	.0007
%RSD	1.8989	.33513	9.8069	.57918	.05404

#1	.18874	1.6687	-.00394	.24717	1.2866
#2	.18486	1.6750	-.00324	.24685	1.2879
#3	.18172	1.6799	-.00366	.24948	1.2877

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2535.2</b>	<b>4661.0</b>	<b>65453.</b>	<b>12028.</b>
Stddev	2.4	3.7	67.	11.
%RSD	.09478	.07978	.10308	.09211

#1	2533.2	4660.8	65523.	12040.
#2	2534.5	4657.4	65449.	12024.
#3	2537.8	4664.9	65388.	12019.

Sample Name: 480-70001-B-5-A      Acquired: 10/28/2014 12:02:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00171</b>	<b>131.50</b>	<b>.04109</b>	<b>.03259</b>	<b>.70052</b>	<b>.00509</b>
Stddev	.00012	.41	.00156	.00025	.00301	.00005
%RSD	6.8671	.31109	3.7936	.76561	.42946	.95616

#1	<b>-.00178</b>	<b>131.67</b>	<b>.04197</b>	<b>.03288</b>	<b>.69931</b>	<b>.00513</b>
#2	<b>-.00178</b>	<b>131.80</b>	<b>.03929</b>	<b>.03243</b>	<b>.70394</b>	<b>.00511</b>
#3	<b>-.00158</b>	<b>131.04</b>	<b>.04202</b>	<b>.03247</b>	<b>.69830</b>	<b>.00504</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>54.548</b>	<b>.00306</b>	<b>.07643</b>	<b>.16210</b>	<b>.54908</b>	<b>174.44</b>
Stddev	.237	.00010	.00023	.00049	.00410	.35
%RSD	.43416	3.2990	.30035	.30506	.74740	.20200

#1	<b>54.807</b>	<b>.00318</b>	<b>.07667</b>	<b>.16228</b>	<b>.55376</b>	<b>174.84</b>
#2	<b>54.343</b>	<b>.00301</b>	<b>.07638</b>	<b>.16154</b>	<b>.54608</b>	<b>174.30</b>
#3	<b>54.493</b>	<b>.00299</b>	<b>.07622</b>	<b>.16247</b>	<b>.54739</b>	<b>174.18</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-5-A      Acquired: 10/28/2014 12:02:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>7.6347</b>	<b>.16792</b>	<b>44.474</b>	<b>2.9683</b>	<b>.00494</b>	<b>.72640</b>
Stddev	.0123	.00088	.179	.0240	.00015	.00787
%RSD	.16053	.52580	.40165	.80941	3.1262	1.0838

#1	7.6368	.16718	44.649	2.9919	.00511	.71961
#2	7.6458	.16890	44.292	2.9439	.00488	.73503
#3	7.6215	.16770	44.482	2.9690	.00483	.72455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.16203</b>	<b>4.5527</b>	<b>.09092</b>	<b>.00277</b>	<b>5.9472</b>	<b>.04765</b>
Stddev	.00076	.0149	.00189	.00137	.0125	.00065
%RSD	.47147	.32796	2.0784	49.355	.21020	1.3581

#1	.16221	4.5409	.08881	.00394	5.9601	.04806
#2	.16268	4.5695	.09151	.00310	5.9351	.04798
#3	.16119	4.5476	.09244	.00127	5.9463	.04690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-5-A      Acquired: 10/28/2014 12:02:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14678	1.5654	-.00490	.24427	2.2959
Stddev	.00472	.0110	.00092	.00297	.0030
%RSD	3.2184	.70248	18.716	1.2162	.13006

#1	.15110	1.5729	-.00590	.24089	2.2951
#2	.14750	1.5528	-.00410	.24646	2.2992
#3	.14173	1.5705	-.00471	.24545	2.2934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2532.7	4708.8	65924.	12132.
Stddev	7.0	7.7	273.	85.
%RSD	.27815	.16310	.41473	.69669

#1	2537.8	4708.7	65746.	12048.
#2	2524.6	4701.1	66239.	12217.
#3	2535.5	4716.5	65787.	12131.

Sample Name: CCV 1369837      Acquired: 10/28/2014 12:07:43      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0473</b>	<b>25.124</b>	<b>.52034</b>	<b>2.0882</b>	<b>2.0390</b>	<b>1.9792</b>
Stddev	.0015	.030	.00196	.0020	.0036	.0034
%RSD	.14661	.11907	.37672	.09450	.17557	.17323

#1	1.0487	25.109	.52067	2.0905	2.0392	1.9832
#2	1.0475	25.158	.52211	2.0870	2.0425	1.9773
#3	1.0457	25.104	.51823	2.0872	2.0354	1.9772

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.411</b>	<b>.51671</b>	<b>2.0811</b>	<b>2.0083</b>	<b>1.8784</b>	<b>25.001</b>
Stddev	.160	.00055	.0025	.0009	.0160	.071
%RSD	.31784	.10593	.11802	.04279	.85431	.28214

#1	50.521	.51622	2.0790	2.0080	1.8920	25.082
#2	50.227	.51730	2.0838	2.0093	1.8607	24.954
#3	50.484	.51660	2.0806	2.0076	1.8827	24.967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 12:07:43      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	127.54	2.0268	49.266	1.8126	1.9969	130.62
Stddev	.17	.0054	.229	.0162	.0016	.08
%RSD	.13508	.26789	.46563	.89241	.08116	.05749

#1	127.71	2.0261	49.440	1.8239	1.9981	130.59
#2	127.37	2.0326	49.006	1.7940	1.9951	130.70
#3	127.53	2.0218	49.353	1.8197	1.9976	130.56

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0732	.51245	.51198	.51926	2.0637	1.9388
Stddev	.0012	.00210	.00117	.00180	.0104	.0046
%RSD	.05846	.41000	.22812	.34701	.50646	.23781

#1	2.0732	.51009	.51094	.51852	2.0708	1.9344
#2	2.0745	.51312	.51175	.52132	2.0517	1.9436
#3	2.0720	.51413	.51324	.51795	2.0686	1.9385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 12:07:43      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9358	1.9145	.97974	2.1909	1.9764
Stddev	.0112	.0173	.00270	.0154	.0026
%RSD	.57611	.90385	.27508	.70467	.13234

#1	1.9486	1.9262	.97663	2.1773	1.9737
#2	1.9288	1.8947	.98115	2.2077	1.9789
#3	1.9298	1.9227	.98143	2.1877	1.9765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2393.6	4323.0	60016.	11402.
Stddev	1.0	5.5	126.	81.
%RSD	.04277	.12626	.21052	.71271

#1	2393.7	4322.0	60162.	11365.
#2	2394.6	4328.8	59934.	11495.
#3	2392.6	4318.1	59952.	11345.

Sample Name: CCB7      Acquired: 10/28/2014 12:12:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00580	.00012	.00068	.00002	.00015
Stddev	.00027	.00380	.00199	.00058	.00001	.00004
%RSD	184.88	65.492	1615.0	85.790	36.941	27.147

#1	-.00007	-.00671	-.00202	.00002	.00003	.00017
#2	.00046	-.00163	.00192	.00090	.00001	.00010
#3	.00005	-.00906	.00047	.00112	.00002	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00780	.00003	.00013	.00014	.00049	.00212
Stddev	.00089	.00007	.00009	.00014	.00060	.00207
%RSD	11.417	207.49	71.894	105.66	121.18	97.891

#1	-.00851	.00005	.00002	-.00003	.00010	.00363
#2	-.00810	.00009	.00019	.00023	.00019	-.00024
#3	-.00680	-.00004	.00017	.00020	.00118	.00297

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB7      Acquired: 10/28/2014 12:12:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.01420</b>	<b>-.00172</b>	<b>.00199</b>	<b>.00010</b>	<b>.00145</b>	<b>.00063</b>
Stddev	.01527	.00033	.00935	.00002	.00019	.00562
%RSD	107.55	19.053	470.17	17.541	13.064	885.32

#1	<b>-.02203</b>	<b>-.00206</b>	<b>.00384</b>	<b>.00011</b>	<b>.00163</b>	<b>.00711</b>
#2	<b>.00340</b>	<b>-.00168</b>	<b>-.00815</b>	<b>.00008</b>	<b>.00147</b>	<b>-.00229</b>
#3	<b>-.02397</b>	<b>-.00141</b>	<b>.01027</b>	<b>.00010</b>	<b>.00125</b>	<b>-.00292</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00026</b>	<b>-.00009</b>	<b>.00062</b>	<b>-.00011</b>	<b>.00272</b>	<b>-.00004</b>
Stddev	.00018	.00106	.00069	.00087	.00156	.00059
%RSD	68.182	1129.7	109.91	791.02	57.136	1372.6

#1	<b>.00035</b>	<b>.00048</b>	<b>.00082</b>	<b>-.00009</b>	<b>.00376</b>	<b>.00039</b>
#2	<b>.00006</b>	<b>-.00132</b>	<b>-.00014</b>	<b>.00075</b>	<b>.00093</b>	<b>.00020</b>
#3	<b>.00038</b>	<b>.00056</b>	<b>.00119</b>	<b>-.00099</b>	<b>.00347</b>	<b>-.00071</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB7      Acquired: 10/28/2014 12:12:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00109	.00017	.00121	.00196	-.00028
Stddev	.00265	.00014	.00057	.00082	.00006
%RSD	244.21	83.313	46.856	41.667	22.633

#1	.00293	.00001	.00064	.00108	-.00032
#2	.00228	.00020	.00178	.00270	-.00021
#3	-.00195	.00028	.00121	.00211	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2959.2	4621.0	66004.	11384.
Stddev	1.6	6.9	237.	45.
%RSD	.05312	.14925	.35872	.39292

#1	2958.0	4618.4	65745.	11332.
#2	2961.0	4628.8	66056.	11410.
#3	2958.7	4615.8	66210.	11410.

Sample Name: 480-70001-B-6-A      Acquired: 10/28/2014 12:17:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00115</b>	<b>105.16</b>	<b>.05563</b>	<b>.04141</b>	<b>.66042</b>	<b>.00471</b>
Stddev	.00017	.25	.00324	.00051	.00175	.00005
%RSD	14.633	.23390	5.8326	1.2438	.26434	1.0317

#1	<b>-.00132</b>	<b>105.41</b>	<b>.05926</b>	<b>.04113</b>	<b>.66232</b>	<b>.00467</b>
#2	<b>-.00115</b>	<b>105.13</b>	<b>.05460</b>	<b>.04109</b>	<b>.66006</b>	<b>.00469</b>
#3	<b>-.00098</b>	<b>104.92</b>	<b>.05301</b>	<b>.04200</b>	<b>.65889</b>	<b>.00476</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.525</b>	<b>.00216</b>	<b>.07919</b>	<b>.14758</b>	<b>.16503</b>	<b>165.14</b>
Stddev	.124	.00015	.00034	.00066	.00031	.23
%RSD	.25137	7.1551	.43252	.45009	.18569	.14000

#1	<b>49.472</b>	<b>.00199</b>	<b>.07957</b>	<b>.14743</b>	<b>.16498</b>	<b>165.33</b>
#2	<b>49.667</b>	<b>.00230</b>	<b>.07892</b>	<b>.14831</b>	<b>.16536</b>	<b>165.22</b>
#3	<b>49.435</b>	<b>.00218</b>	<b>.07906</b>	<b>.14701</b>	<b>.16475</b>	<b>164.88</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-6-A      Acquired: 10/28/2014 12:17:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>9.9988</b>	<b>.14761</b>	<b>40.576</b>	<b>3.8509</b>	<b>.00408</b>	<b>.58570</b>
Stddev	.0460	.00142	.162	.0058	.00004	.00218
%RSD	.45969	.95866	.39896	.15127	.91186	.37219

#1	10.010	.14914	40.499	3.8485	.00412	.58686
#2	10.038	.14635	40.762	3.8467	.00407	.58705
#3	9.9482	.14734	40.466	3.8576	.00405	.58318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.17424</b>	<b>5.7722</b>	<b>.07393</b>	<b>.00123</b>	<b>5.1304</b>	<b>.03545</b>
Stddev	.00035	.0245	.00088	.00094	.0279	.00034
%RSD	.19975	.42393	1.1882	76.606	.54461	.95402

#1	.17464	5.7970	.07482	.00022	5.1288	.03583
#2	.17405	5.7481	.07307	.00138	5.1591	.03533
#3	.17402	5.7714	.07389	.00209	5.1033	.03519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-6-A      Acquired: 10/28/2014 12:17:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.12716	1.6087	-.00481	.22456	.64683
Stddev	.00231	.0061	.00150	.00343	.00218
%RSD	1.8157	.37678	31.243	1.5291	.33757

#1	.12859	1.6105	-.00587	.22813	.64935
#2	.12840	1.6136	-.00547	.22428	.64561
#3	.12450	1.6019	-.00309	.22128	.64553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2535.3	4880.7	68451.	12706.
Stddev	7.5	4.4	164.	34.
%RSD	.29676	.09027	.23955	.26690

#1	2526.7	4876.0	68403.	12707.
#2	2538.5	4881.3	68317.	12673.
#3	2540.7	4884.7	68634.	12740.

Sample Name: 480-70001-B-7-A      Acquired: 10/28/2014 12:22:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00180</b>	<b>115.25</b>	<b>.03097</b>	<b>.02935</b>	<b>.57621</b>	<b>.00477</b>
Stddev	.00010	.19	.00396	.00048	.00058	.00005
%RSD	5.4852	.16176	12.780	1.6427	.10135	1.0761

#1	<b>-.00190</b>	<b>115.30</b>	<b>.02645</b>	<b>.02882</b>	<b>.57650</b>	<b>.00475</b>
#2	<b>-.00171</b>	<b>115.05</b>	<b>.03264</b>	<b>.02948</b>	<b>.57554</b>	<b>.00473</b>
#3	<b>-.00179</b>	<b>115.41</b>	<b>.03382</b>	<b>.02976</b>	<b>.57659</b>	<b>.00482</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>20.903</b>	<b>.00222</b>	<b>.07623</b>	<b>.13611</b>	<b>.08427</b>	<b>162.71</b>
Stddev	.041	.00013	.00016	.00076	.00107	.31
%RSD	.19777	5.9705	.20789	.55499	1.2646	.19169

#1	<b>20.899</b>	<b>.00230</b>	<b>.07631</b>	<b>.13666</b>	<b>.08546</b>	<b>162.88</b>
#2	<b>20.946</b>	<b>.00230</b>	<b>.07605</b>	<b>.13641</b>	<b>.08396</b>	<b>162.35</b>
#3	<b>20.864</b>	<b>.00207</b>	<b>.07634</b>	<b>.13525</b>	<b>.08340</b>	<b>162.90</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 480-70001-B-7-A      Acquired: 10/28/2014 12:22:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>7.0629</b>	<b>.16523</b>	<b>29.744</b>	<b>2.4029</b>	<b>.00311</b>	<b>.61936</b>
Stddev	.0294	.00170	.109	.0098	.00045	.00299
%RSD	.41577	1.0260	.36760	.40850	14.307	.48323

#1	7.0294	.16481	29.837	2.4110	.00350	.61944
#2	7.0843	.16378	29.623	2.4058	.00263	.61632
#3	7.0751	.16709	29.772	2.3920	.00321	.62231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.13108</b>	<b>.22285</b>	<b>.00717</b>	<b>.00195</b>	<b>5.0126</b>	<b>.03343</b>
Stddev	.00108	.00178	.00159	.00388	.0132	.00098
%RSD	.82506	.79772	22.180	198.95	.26284	2.9296

#1	.13189	.22114	.00699	.00258	4.9983	.03402
#2	.12985	.22272	.00885	-.00220	5.0154	.03230
#3	.13150	.22469	.00568	.00547	5.0242	.03398

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-7-A      Acquired: 10/28/2014 12:22:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11839	1.3115	-.00422	.21928	.54661
Stddev	.00069	.0043	.00302	.00292	.00201
%RSD	.58228	.32660	71.694	1.3317	.36717

#1	.11821	1.3142	-.00197	.21599	.54752
#2	.11781	1.3137	-.00765	.22030	.54431
#3	.11915	1.3066	-.00303	.22156	.54800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.8	4786.0	67029.	12253.
Stddev	5.4	17.0	117.	48.
%RSD	.20933	.35560	.17526	.38797

#1	2583.2	4771.4	66968.	12226.
#2	2593.0	4804.7	66955.	12225.
#3	2584.1	4782.0	67165.	12308.

Sample Name: 480-70001-B-8-A      Acquired: 10/28/2014 12:27:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00119</b>	<b>135.45</b>	<b>.05464</b>	<b>.04985</b>	<b>.82862</b>	<b>.00618</b>
Stddev	.00014	.13	.00131	.00048	.00035	.00007
%RSD	11.873	.09429	2.3904	.95688	.04257	1.1027

#1	<b>-.00135</b>	<b>135.51</b>	<b>.05315</b>	<b>.04986</b>	<b>.82898</b>	<b>.00610</b>
#2	<b>-.00107</b>	<b>135.31</b>	<b>.05518</b>	<b>.05032</b>	<b>.82828</b>	<b>.00624</b>
#3	<b>-.00115</b>	<b>135.55</b>	<b>.05559</b>	<b>.04936</b>	<b>.82859</b>	<b>.00618</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>74.305</b>	<b>.00300</b>	<b>.10225</b>	<b>.21172</b>	<b>.21703</b>	<b>211.74</b>
Stddev	.055	.00022	.00022	.00068	.00018	1.89
%RSD	.07388	7.2771	.21656	.32267	.08388	.89098

#1	<b>74.288</b>	<b>.00321</b>	<b>.10234</b>	<b>.21195</b>	<b>.21682</b>	<b>213.80</b>
#2	<b>74.260</b>	<b>.00302</b>	<b>.10200</b>	<b>.21225</b>	<b>.21715</b>	<b>210.10</b>
#3	<b>74.366</b>	<b>.00277</b>	<b>.10241</b>	<b>.21095</b>	<b>.21712</b>	<b>211.32</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 480-70001-B-8-A      Acquired: 10/28/2014 12:27:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>13.298</b>	<b>.19236</b>	<b>50.464</b>	<b>3.8660</b>	<b>.00496</b>	<b>1.4491</b>
Stddev	.018	.00045	.101	.0093	.00007	.0022
%RSD	.13720	.23435	.20013	.23958	1.3935	.15216

#1	13.286	.19275	50.378	3.8725	.00504	1.4502
#2	13.290	.19186	50.440	3.8554	.00492	1.4465
#3	13.319	.19246	50.576	3.8701	.00493	1.4505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.23413</b>	<b>1.4735</b>	<b>.02528</b>	<b>.00314</b>	<b>5.4631</b>	<b>.04334</b>
Stddev	.00059	.0044	.00192	.00310	.0190	.00039
%RSD	.25108	.29618	7.5825	98.661	.34803	.89239

#1	.23393	1.4684	.02693	.00653	5.4765	.04377
#2	.23366	1.4763	.02318	.00245	5.4413	.04304
#3	.23479	1.4757	.02571	.00045	5.4713	.04320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-8-A      Acquired: 10/28/2014 12:27:44      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19986	2.0010	-.00326	.27711	.77468
Stddev	.00233	.0037	.00152	.00217	.00131
%RSD	1.1671	.18499	46.464	.78433	.16934

#1	.20076	2.0040	-.00429	.27638	.77603
#2	.19721	1.9968	-.00398	.27540	.77341
#3	.20160	2.0021	-.00152	.27956	.77460

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2478.9	4897.2	68713.	12680.
Stddev	5.0	7.7	172.	20.
%RSD	.20028	.15669	.25017	.15955

#1	2474.2	4888.6	68566.	12658.
#2	2484.1	4903.5	68670.	12685.
#3	2478.3	4899.5	68902.	12698.

Sample Name: 480-70001-B-9-A      Acquired: 10/28/2014 12:32:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00008</b>	<b>44.828</b>	<b>.07222</b>	<b>.07795</b>	<b>6.1998</b>	<b>.00261</b>
Stddev	.00011	.067	.00119	.00155	.0148	.00004
%RSD	126.16	.14902	1.6448	1.9897	.23817	1.6305

#1	<b>-.00001</b>	<b>44.859</b>	<b>.07085</b>	<b>.07915</b>	<b>6.2015</b>	<b>.00264</b>
#2	<b>-.00004</b>	<b>44.875</b>	<b>.07300</b>	<b>.07620</b>	<b>6.2137</b>	<b>.00256</b>
#3	<b>-.00020</b>	<b>44.752</b>	<b>.07280</b>	<b>.07849</b>	<b>6.1843</b>	<b>.00262</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>372.93</b>	<b>.00541</b>	<b>.03606</b>	<b>.19479</b>	<b>.30977</b>	<b>113.06</b>
Stddev	1.53	.00003	.00061	.00148	.00159	.23
%RSD	.41021	.64485	1.6830	.76101	.51216	.20495

#1	<b>373.45</b>	<b>.00545</b>	<b>.03644</b>	<b>.19628</b>	<b>.30856</b>	<b>112.83</b>
#2	<b>374.13</b>	<b>.00540</b>	<b>.03536</b>	<b>.19477</b>	<b>.31157</b>	<b>113.30</b>
#3	<b>371.21</b>	<b>.00539</b>	<b>.03638</b>	<b>.19332</b>	<b>.30917</b>	<b>113.06</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 480-70001-B-9-A      Acquired: 10/28/2014 12:32:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3945	.05574	47.989	2.2894	.00536	3.6684
Stddev	.0270	.00013	.216	.0135	.00032	.0088
%RSD	.50055	.24028	.45076	.58812	6.0391	.24062

#1	5.4055	.05573	47.845	2.2873	.00513	3.6673
#2	5.4143	.05587	48.238	2.3039	.00523	3.6777
#3	5.3637	.05561	47.884	2.2772	.00573	3.6602

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13934	2.0267	.05713	.00409	4.6209	.07725
Stddev	.00219	.0211	.00164	.00371	.0338	.00098
%RSD	1.5690	1.0400	2.8718	90.761	.73149	1.2630

#1	.13858	2.0364	.05707	.00535	4.6157	.07771
#2	.13763	2.0025	.05880	-.00009	4.6570	.07613
#3	.14180	2.0412	.05552	.00702	4.5900	.07792

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-9-A      Acquired: 10/28/2014 12:32:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52316	1.2598	-.00288	.21038	3.6837
Stddev	.00189	.0072	.00124	.00574	.0388
%RSD	.36144	.57202	43.104	2.7286	1.0534

#1	.52435	1.2576	-.00372	.20610	3.6968
#2	.52415	1.2678	-.00145	.20813	3.6400
#3	.52098	1.2539	-.00347	.21690	3.7142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2321.4	4434.5	63131.	11923.
Stddev	23.7	47.2	241.	59.
%RSD	1.0196	1.0655	.38212	.49202

#1	2305.1	4395.7	62934.	11932.
#2	2348.6	4487.1	63060.	11860.
#3	2310.6	4420.6	63400.	11976.



Sample Name: 480-70001-B-10-A      Acquired: 10/28/2014 12:38:05      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	71.473	.04319	.08653	2.5149	.00400
Stddev	.00026	.168	.00255	.00076	.0016	.00004
%RSD	42.827	.23545	5.8957	.87981	.06215	.92461

#1	.00088	71.423	.04598	.08582	2.5137	.00404
#2	.00057	71.660	.04098	.08734	2.5144	.00399
#3	.00037	71.335	.04262	.08642	2.5167	.00397

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	456.09	.00681	.24083	.62613	.25952	119.14
Stddev	.96	.00003	.00067	.00104	.00252	.41
%RSD	.20942	.42567	.27789	.16607	.97178	.34296

#1	455.82	.00684	.24157	.62669	.25758	119.53
#2	455.30	.00678	.24028	.62493	.26237	119.18
#3	457.15	.00681	.24062	.62677	.25861	118.72

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-10-A      Acquired: 10/28/2014 12:38:05      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.253</b>	<b>.10416</b>	<b>206.43</b>	<b>4.3473</b>	<b>.14117</b>	<b>3.7197</b>
Stddev	.019	.00026	.36	.0074	.00055	.0075
%RSD	.18440	.25164	.17206	.17125	.38730	.20122

#1	10.261	.10386	206.04	4.3482	.14061	3.7116
#2	10.267	.10433	206.75	4.3543	.14171	3.7210
#3	10.231	.10429	206.49	4.3395	.14120	3.7264

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.24719</b>	<b>1.0207</b>	<b>.01669</b>	<b>.00680</b>	<b>5.5501</b>	<b>.07800</b>
Stddev	.00069	.0034	.00154	.00136	.0323	.00073
%RSD	.27843	.33579	9.2331	20.024	.58228	.93201

#1	.24774	1.0246	.01840	.00760	5.5456	.07832
#2	.24743	1.0194	.01542	.00523	5.5844	.07851
#3	.24642	1.0181	.01625	.00758	5.5202	.07717

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-10-A      Acquired: 10/28/2014 12:38:05      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50466	1.6562	-.00744	2.8155	2.7877
Stddev	.00467	.0096	.00087	.0202	.0038
%RSD	.92633	.58215	11.717	.71674	.13729

#1	.50925	1.6464	-.00837	2.8324	2.7852
#2	.49991	1.6656	-.00732	2.7931	2.7859
#3	.50481	1.6565	-.00664	2.8208	2.7921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2208.9	4447.8	62877.	11847.
Stddev	3.1	5.8	85.	66.
%RSD	.13992	.13117	.13465	.55814

#1	2206.2	4441.8	62899.	11888.
#2	2208.3	4453.4	62949.	11770.
#3	2212.3	4448.4	62784.	11882.

Sample Name: 480-70001-B-11-A      Acquired: 10/28/2014 12:43:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	69.044	.03951	.07116	1.2146	.00355
Stddev	.00003	.290	.00266	.00047	.0041	.00002
%RSD	15.397	.42013	6.7306	.66241	.33517	.50460

#1	.00024	69.207	.04060	.07067	1.2136	.00356
#2	.00018	69.217	.04146	.07120	1.2191	.00356
#3	.00020	68.709	.03648	.07161	1.2111	.00353

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	548.55	.00720	.05723	.29313	.37494	127.47
Stddev	4.82	.00012	.00012	.00164	.00161	.49
%RSD	.87823	1.6455	.21124	.55880	.43004	.38331

#1	553.12	.00710	.05710	.29494	.37649	127.72
#2	549.00	.00733	.05728	.29269	.37507	127.78
#3	543.52	.00717	.05733	.29175	.37327	126.90

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-11-A      Acquired: 10/28/2014 12:43:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>11.415</b>	<b>.11861</b>	<b>265.64</b>	<b>4.5663</b>	<b>.00434</b>	<b>1.5553</b>
Stddev	.040	.00106	.97	.0244	.00029	.0158
%RSD	.35245	.89464	.36630	.53495	6.6241	1.0151

#1	11.454	.11831	266.45	4.5932	.00410	1.5647
#2	11.417	.11979	265.91	4.5602	.00466	1.5642
#3	11.373	.11774	264.56	4.5455	.00428	1.5371

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.14822</b>	<b>1.2681</b>	<b>.00784</b>	<b>.00096</b>	<b>4.7477</b>	<b>.07182</b>
Stddev	.00042	.0043	.00165	.00340	.0061	.00052
%RSD	.28597	.34012	21.085	354.09	.12788	.72505

#1	.14868	1.2724	.00846	-.00209	4.7493	.07153
#2	.14785	1.2637	.00597	.00462	4.7528	.07242
#3	.14813	1.2681	.00910	.00034	4.7410	.07150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 480-70001-B-11-A      Acquired: 10/28/2014 12:43:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.45925	1.3151	-.00369	.19341	2.2069
Stddev	.00124	.0094	.00103	.00310	.0025
%RSD	.27099	.71573	27.870	1.6042	.11310

#1	.46064	1.3253	-.00463	.19674	2.2097
#2	.45823	1.3134	-.00259	.19060	2.2048
#3	.45889	1.3067	-.00384	.19289	2.2064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2161.2	4424.6	62430.	12089.
Stddev	6.4	10.8	93.	68.
%RSD	.29824	.24418	.14847	.56592

#1	2158.4	4428.0	62346.	12011.
#2	2156.6	4412.5	62529.	12113.
#3	2168.6	4433.3	62414.	12141.

Sample Name: CCV 1369837      Acquired: 10/28/2014 12:48:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0321	25.346	.52270	2.0890	2.0329	2.0002
Stddev	.0136	.241	.00016	.0053	.0109	.0168
%RSD	1.3169	.95151	.03062	.25623	.53450	.83938

#1	1.0452	25.142	.52281	2.0828	2.0237	1.9929
#2	1.0330	25.612	.52277	2.0922	2.0449	2.0194
#3	1.0180	25.284	.52251	2.0919	2.0300	1.9882

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.643	.51591	2.0785	1.9785	1.9062	25.593
Stddev	.580	.00099	.0013	.0290	.0266	.274
%RSD	1.1454	.19145	.06240	1.4664	1.3942	1.0690

#1	50.219	.51487	2.0780	2.0062	1.8929	25.489
#2	51.304	.51684	2.0774	1.9809	1.9368	25.903
#3	50.405	.51604	2.0799	1.9483	1.8888	25.386

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 12:48:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	127.24	2.0340	49.998	1.8514	1.9918	130.50
Stddev	1.08	.0124	.668	.0311	.0042	1.03
%RSD	.84962	.61136	1.3353	1.6785	.20943	.78624

#1	126.24	2.0237	49.624	1.8336	1.9874	129.55
#2	128.39	2.0478	50.769	1.8873	1.9957	131.59
#3	127.10	2.0306	49.602	1.8334	1.9923	130.35

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0637	.50974	.51305	.52219	2.0629	1.9259
Stddev	.0021	.00125	.00329	.00262	.0220	.0051
%RSD	.10082	.24594	.64124	.50236	1.0657	.26525

#1	2.0613	.51020	.50926	.51916	2.0405	1.9217
#2	2.0652	.50832	.51463	.52370	2.0844	1.9316
#3	2.0646	.51069	.51525	.52370	2.0637	1.9245

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 12:48:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9434	1.9302	.97293	2.1495	1.9679
Stddev	.0241	.0304	.00304	.0326	.0011
%RSD	1.2416	1.5752	.31207	1.5150	.05770

#1	1.9405	1.9151	.97052	2.1871	1.9692
#2	1.9688	1.9653	.97634	2.1296	1.9674
#3	1.9208	1.9104	.97193	2.1319	1.9671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2399.5	4323.6	61274.	11237.
Stddev	1.8	4.5	751.	184.
%RSD	.07538	.10364	1.2257	1.6380

#1	2400.6	4328.3	60590.	11354.
#2	2400.4	4323.1	61154.	11025.
#3	2397.4	4319.4	62078.	11332.

Sample Name: CCB8      Acquired: 10/28/2014 12:53:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00499	-.00044	.00047	.00007	.00014
Stddev	.00035	.00849	.00100	.00011	.00001	.00003
%RSD	319.21	170.11	227.45	24.074	15.075	21.705

#1	.00045	.01418	.00065	.00050	.00006	.00016
#2	.00013	.00336	-.00132	.00056	.00008	.00011
#3	-.00025	-.00256	-.00066	.00034	.00007	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00697	.00001	.00010	.00025	.00079	.00272
Stddev	.00042	.00004	.00016	.00015	.00005	.00153
%RSD	5.9839	458.37	157.53	62.103	6.8803	56.314

#1	-.00658	-.00001	.00002	.00038	.00073	.00448
#2	-.00741	.00005	-.00000	.00008	.00083	.00207
#3	-.00693	-.00002	.00028	.00029	.00081	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB8      Acquired: 10/28/2014 12:53:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00782	-.00129	.00713	.00009	.00107	.01098
Stddev	.02040	.00031	.02232	.00001	.00030	.00421
%RSD	260.78	24.014	312.88	11.067	28.361	38.306

#1	-.01116	-.00117	-.01806	.00011	.00133	.00794
#2	.00523	-.00106	.01502	.00009	.00114	.00922
#3	.02940	-.00164	.02443	.00009	.00074	.01578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.00051	.00084	.00006	.00235	.00036
Stddev	.00034	.00096	.00163	.00209	.00332	.00028
%RSD	76.521	186.58	193.50	3686.0	141.56	77.843

#1	.00052	.00099	-.00088	-.00236	.00604	.00064
#2	.00007	-.00059	.00236	.00130	.00140	.00033
#3	.00074	.00114	.00105	.00123	-.00040	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB8      Acquired: 10/28/2014 12:53:19      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00157	.00031	.00096	.00146	-.00001
Stddev	.00283	.00004	.00157	.00411	.00014
%RSD	180.50	12.013	164.13	280.77	1875.8

#1	-.00051	.00027	.00092	-.00285	.00004
#2	.00480	.00032	-.00060	.00190	.00009
#3	.00043	.00035	.00254	.00533	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2935.2	4588.2	65476.	11465.
Stddev	7.9	15.4	167.	17.
%RSD	.27050	.33587	.25516	.14902

#1	2935.2	4585.5	65613.	11484.
#2	2927.3	4574.4	65526.	11450.
#3	2943.2	4604.8	65290.	11461.

Sample Name: CRI 1369147      Acquired: 10/28/2014 12:58:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00516	.19447	.01068	.20830	.20457	.00404
Stddev	.00018	.01281	.00093	.00077	.00039	.00002
%RSD	3.5005	6.5877	8.6592	.37139	.18967	.51418

#1	.00529	.18115	.00963	.20875	.20489	.00402
#2	.00495	.20671	.01105	.20740	.20414	.00403
#3	.00523	.19554	.01137	.20873	.20468	.00406

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0890	.00504	.04846	.00514	.02594	.10436
Stddev	.0236	.00001	.00029	.00026	.00020	.00079
%RSD	.46338	.25664	.59893	5.1079	.76910	.75884

#1	5.1155	.00503	.04826	.00543	.02608	.10523
#2	5.0813	.00505	.04832	.00507	.02571	.10415
#3	5.0702	.00503	.04879	.00492	.02604	.10369

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 12:58:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>5.0488</b>	<b>.04958</b>	<b>5.0337</b>	<b>.01492</b>	<b>.04093</b>	<b>5.3164</b>
Stddev	.0301	.00069	.0331	.00021	.00017	.0094
%RSD	.59619	1.4006	.65755	1.4143	.40331	.17662

#1	5.0814	.05012	5.0697	.01517	.04074	5.3197
#2	5.0429	.04879	5.0046	.01480	.04102	5.3236
#3	5.0221	.04982	5.0267	.01480	.04102	5.3058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03856</b>	<b>.00958</b>	<b>.01069</b>	<b>.00962</b>	<b>.50681</b>	<b>.10283</b>
Stddev	.00001	.00138	.00135	.00032	.01094	.00034
%RSD	.02779	14.394	12.643	3.3219	2.1590	.33203

#1	.03857	.01070	.01207	.00925	.51873	.10322
#2	.03855	.00804	.00937	.00986	.50445	.10262
#3	.03857	.01000	.01063	.00974	.49723	.10264

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 12:58:31      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05532</b>	<b>.05196</b>	<b>.02005</b>	<b>.05161</b>	<b>.01984</b>
Stddev	.00452	.00065	.00084	.00110	.00010
%RSD	8.1686	1.2445	4.2131	2.1350	.51372

#1	.06035	.05269	.02083	.05227	.01979
#2	.05160	.05174	.02016	.05034	.01977
#3	.05401	.05145	.01915	.05222	.01996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2853.7</b>	<b>4555.1</b>	<b>64607.</b>	<b>11538.</b>
Stddev	5.6	8.7	184.	103.
%RSD	.19677	.19131	.28514	.89277

#1	2857.5	4555.3	64741.	11419.
#2	2856.3	4563.7	64397.	11594.
#3	2847.2	4546.2	64682.	11600.

Sample Name: CCV 1369837      Acquired: 10/28/2014 13:03:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0446	25.114	.52082	2.0882	2.0146	1.9884
Stddev	.0054	.118	.00463	.0208	.0090	.0060
%RSD	.52107	.47053	.88980	.99412	.44685	.30138

#1	1.0386	25.227	.51763	2.0814	2.0220	1.9919
#2	1.0461	25.125	.51870	2.0718	2.0172	1.9918
#3	1.0492	24.991	.52614	2.1116	2.0045	1.9814

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.092	.51708	2.0918	2.0096	1.8819	25.551
Stddev	.239	.00462	.0196	.0078	.0095	.107
%RSD	.47776	.89303	.93870	.38891	.50610	.41729

#1	50.351	.51458	2.0825	2.0018	1.8854	25.632
#2	50.046	.51425	2.0786	2.0095	1.8892	25.592
#3	49.880	.52241	2.1144	2.0174	1.8711	25.430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 13:03:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>125.98</b>	<b>2.0214</b>	<b>49.479</b>	<b>1.8423</b>	<b>1.9879</b>	<b>129.29</b>
Stddev	.66	.0074	.227	.0076	.0222	.56
%RSD	.52179	.36759	.45891	.41462	1.1152	.43257

#1	126.54	2.0243	49.734	1.8510	1.9778	129.75
#2	126.15	2.0269	49.403	1.8368	1.9726	129.45
#3	125.26	2.0129	49.299	1.8389	2.0133	128.67

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0710</b>	<b>.50859</b>	<b>.51132</b>	<b>.51693</b>	<b>2.0310</b>	<b>1.9224</b>
Stddev	.0216	.00550	.00526	.00551	.0051	.0230
%RSD	1.0438	1.0809	1.0281	1.0663	.25280	1.1962

#1	2.0614	.50668	.50886	.51456	2.0336	1.9115
#2	2.0559	.50431	.50774	.51300	2.0343	1.9068
#3	2.0958	.51479	.51735	.52323	2.0251	1.9488

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 13:03:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9304	1.9016	.97132	2.1817	1.9805
Stddev	.0124	.0064	.00945	.0233	.0217
%RSD	.64416	.33557	.97283	1.0705	1.0937

#1	1.9430	1.9086	.96550	2.1550	1.9697
#2	1.9182	1.9003	.96625	2.1983	1.9664
#3	1.9301	1.8960	.98223	2.1919	2.0055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2376.5	4291.1	60204.	11295.
Stddev	19.2	35.4	198.	66.
%RSD	.80901	.82603	.32941	.58546

#1	2385.4	4307.0	60423.	11219.
#2	2389.7	4315.7	60152.	11338.
#3	2354.4	4250.4	60037.	11329.

Sample Name: CCB9      Acquired: 10/28/2014 13:08:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00487	-.00011	.00096	.00011	.00019
Stddev	.00021	.00834	.00150	.00012	.00004	.00001
%RSD	229.79	171.12	1396.8	12.234	37.994	3.0388

#1	.00023	.00081	.00010	.00083	.00009	.00018
#2	-.00015	-.00065	-.00170	.00105	.00008	.00020
#3	.00021	.01446	.00128	.00101	.00016	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00704	.00018	.00023	.00053	.00052	.00100
Stddev	.00241	.00012	.00018	.00014	.00072	.00131
%RSD	34.311	64.486	78.641	26.322	139.97	131.11

#1	-.00899	.00011	.00042	.00037	.00000	.00250
#2	-.00434	.00032	.00005	.00063	.00020	.00037
#3	-.00779	.00012	.00022	.00059	.00134	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB9      Acquired: 10/28/2014 13:08:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00585</b>	<b>-.00070</b>	<b>.01345</b>	<b>.00016</b>	<b>.00132</b>	<b>.01125</b>
Stddev	.02600	.00009	.01407	.00001	.00027	.00266
%RSD	444.15	13.329	104.63	9.3045	20.657	23.600

#1	<b>-.01306</b>	<b>-.00075</b>	<b>.01498</b>	<b>.00017</b>	<b>.00164</b>	<b>.01393</b>
#2	<b>-.02750</b>	<b>-.00076</b>	<b>-.00132</b>	<b>.00016</b>	<b>.00117</b>	<b>.00862</b>
#3	<b>.02299</b>	<b>-.00060</b>	<b>.02670</b>	<b>.00014</b>	<b>.00116</b>	<b>.01122</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00039</b>	<b>-.00002</b>	<b>.00083</b>	<b>.00001</b>	<b>-.00201</b>	<b>.00007</b>
Stddev	.00017	.00057	.00059	.00220	.00610	.00052
%RSD	43.670	3284.1	70.152	34753.	304.17	707.44

#1	<b>.00032</b>	<b>-.00065</b>	<b>.00029</b>	<b>.00247</b>	<b>.00084</b>	<b>.00043</b>
#2	<b>.00058</b>	<b>.00044</b>	<b>.00076</b>	<b>-.00175</b>	<b>.00215</b>	<b>-.00052</b>
#3	<b>.00026</b>	<b>.00016</b>	<b>.00145</b>	<b>-.00070</b>	<b>-.00901</b>	<b>.00031</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB9      Acquired: 10/28/2014 13:08:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00427	.00026	.00044	.00066	-.00021
Stddev	.00267	.00006	.00087	.00030	.00012
%RSD	62.694	22.803	196.57	44.745	54.860

#1	.00735	.00032	.00120	.00038	-.00008
#2	.00259	.00025	-.00051	.00097	-.00024
#3	.00286	.00020	.00064	.00064	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2929.0	4582.7	65219.	11355.
Stddev	7.0	10.8	532.	155.
%RSD	.24049	.23666	.81628	1.3676

#1	2925.3	4572.0	65355.	11185.
#2	2924.6	4582.5	65670.	11391.
#3	2937.1	4593.7	64632.	11489.

Sample Name: MB 180-122817/1-A      Acquired: 10/28/2014 13:17:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00015</b>	<b>.00250</b>	<b>-.00081</b>	<b>-.00003</b>	<b>.00007</b>	<b>.00003</b>
Stddev	.00014	.01181	.00119	.00040	.00011	.00002
%RSD	96.356	472.09	146.36	1253.3	144.56	68.775
#1	<b>-.00025</b>	<b>.00724</b>	<b>-.00021</b>	<b>.00043</b>	<b>.00010</b>	<b>.00001</b>
#2	<b>.00002</b>	<b>-.01094</b>	<b>-.00218</b>	<b>-.00028</b>	<b>-.00005</b>	<b>.00003</b>
#3	<b>-.00021</b>	<b>.01120</b>	<b>-.00004</b>	<b>-.00024</b>	<b>.00016</b>	<b>.00005</b>
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.01081</b>	<b>.00016</b>	<b>-.00005</b>	<b>.00114</b>	<b>.00104</b>	<b>.00590</b>
Stddev	.00322	.00008	.00029	.00036	.00009	.00085
%RSD	29.758	48.869	563.40	31.189	8.5601	14.325
#1	<b>-.01400</b>	<b>.00018</b>	<b>.00017</b>	<b>.00082</b>	<b>.00093</b>	<b>.00549</b>
#2	<b>-.00756</b>	<b>.00023</b>	<b>-.00038</b>	<b>.00108</b>	<b>.00110</b>	<b>.00534</b>
#3	<b>-.01088</b>	<b>.00008</b>	<b>.00006</b>	<b>.00152</b>	<b>.00108</b>	<b>.00687</b>
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122817/1-A      Acquired: 10/28/2014 13:17:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.03470</b>	<b>-.00112</b>	<b>-.00694</b>	<b>.00016</b>	<b>-.00009</b>	<b>.00908</b>
Stddev	.02240	.00082	.00478	.00005	.00009	.00104
%RSD	64.568	72.763	68.771	31.001	104.54	11.470

#1	<b>-.01638</b>	<b>-.00046</b>	<b>-.00424</b>	<b>.00020</b>	<b>-.00016</b>	<b>.00807</b>
#2	<b>-.05968</b>	<b>-.00088</b>	<b>-.00414</b>	<b>.00018</b>	<b>.00001</b>	<b>.00901</b>
#3	<b>-.02804</b>	<b>-.00203</b>	<b>-.01246</b>	<b>.00010</b>	<b>-.00011</b>	<b>.01015</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00056</b>	<b>.00018</b>	<b>-.00123</b>	<b>-.00014</b>	<b>.00561</b>	<b>.03066</b>
Stddev	.00029	.00107	.00120	.00100	.00837	.00045
%RSD	52.121	594.00	98.354	720.24	149.16	1.4599

#1	<b>.00044</b>	<b>-.00101</b>	<b>-.00262</b>	<b>-.00107</b>	<b>-.00166</b>	<b>.03108</b>
#2	<b>.00036</b>	<b>.00106</b>	<b>-.00057</b>	<b>.00092</b>	<b>.01476</b>	<b>.03071</b>
#3	<b>.00090</b>	<b>.00048</b>	<b>-.00049</b>	<b>-.00026</b>	<b>.00374</b>	<b>.03019</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122817/1-A      Acquired: 10/28/2014 13:17:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00437	.00019	-.00059	.00015	.00443
Stddev	.00123	.00005	.00082	.00068	.00003
%RSD	28.178	25.873	138.28	441.28	.71060

#1	.00296	.00021	-.00151	-.00029	.00440
#2	.00491	.00022	-.00030	.00094	.00447
#3	.00524	.00013	.00004	-.00018	.00443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.1	4516.6	65055.	11398.
Stddev	9.1	14.3	117.	99.
%RSD	.31308	.31691	.18029	.87294

#1	2886.2	4500.2	64951.	11298.
#2	2898.2	4523.6	65031.	11398.
#3	2904.0	4526.1	65182.	11497.



Sample Name: LCS 180-122817/2-A      Acquired: 10/28/2014 13:23:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04826	1.8886	.48170	.96530	1.9134	.04752
Stddev	.00018	.0165	.00149	.00088	.0018	.00015
%RSD	.37738	.87378	.30901	.09078	.09510	.31395

#1	.04820	1.8810	.48002	.96443	1.9154	.04743
#2	.04812	1.9076	.48285	.96531	1.9129	.04769
#3	.04847	1.8773	.48223	.96618	1.9119	.04744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.657	.04775	.47433	.19220	.23101	.98567
Stddev	.124	.00007	.00038	.00067	.00154	.00949
%RSD	.26590	.14445	.07923	.35100	.66654	.96234

#1	46.696	.04779	.47463	.19267	.23175	.98637
#2	46.757	.04767	.47446	.19142	.23203	.99479
#3	46.518	.04779	.47391	.19249	.22923	.97585

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122817/2-A      Acquired: 10/28/2014 13:23:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>47.154</b>	<b>.97002</b>	<b>46.071</b>	<b>.44745</b>	<b>.92935</b>	<b>48.976</b>
Stddev	.030	.00274	.258	.00163	.00170	.092
%RSD	.06420	.28255	.55951	.36392	.18312	.18862

#1	47.141	.97226	46.197	.44742	.92739	48.936
#2	47.188	.97083	46.242	.44909	.93047	49.082
#3	47.131	.96696	45.775	.44584	.93018	48.910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.46985</b>	<b>.45704</b>	<b>.46061</b>	<b>.47368</b>	<b>8.2125</b>	<b>1.7848</b>
Stddev	.00034	.00295	.00144	.00138	.0508	.0047
%RSD	.07247	.64477	.31163	.29196	.61835	.26442

#1	.47012	.45747	.45897	.47493	8.2234	1.7795
#2	.46947	.45975	.46164	.47220	8.2569	1.7884
#3	.46995	.45390	.46122	.47390	8.1571	1.7866

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122817/2-A      Acquired: 10/28/2014 13:23:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.91428	.89075	.44655	.50989	.47260
Stddev	.00668	.00470	.00151	.00795	.00050
%RSD	.73114	.52811	.33816	1.5597	.10500

#1	.92139	.89337	.44631	.51134	.47265
#2	.90812	.89355	.44517	.50132	.47307
#3	.91332	.88532	.44816	.51702	.47208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2495.8	4249.5	60382.	11138.
Stddev	3.6	3.5	66.	59.
%RSD	.14325	.08268	.10957	.52682

#1	2491.7	4248.7	60306.	11118.
#2	2498.2	4253.4	60427.	11093.
#3	2497.4	4246.5	60412.	11205.

Sample Name: 180-37595-B-1-B      Acquired: 10/28/2014 13:27:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03453</b>	<b>114.81</b>	<b>.08046</b>	<b>.25047</b>	<b>.67734</b>	<b>.00609</b>
Stddev	.00061	.16	.00391	.00058	.00115	.00005
%RSD	1.7585	.13955	4.8625	.23135	.17030	.81740

#1	<b>.03437</b>	<b>114.64</b>	<b>.08100</b>	<b>.25057</b>	<b>.67824</b>	<b>.00605</b>
#2	<b>.03520</b>	<b>114.96</b>	<b>.08407</b>	<b>.24985</b>	<b>.67774</b>	<b>.00615</b>
#3	<b>.03402</b>	<b>114.83</b>	<b>.07630</b>	<b>.25099</b>	<b>.67604</b>	<b>.00608</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>45.343</b>	<b>.01159</b>	<b>.08751</b>	<b>.66781</b>	<b>1.0957</b>	<b>223.20</b>
Stddev	.088	.00010	.00026	.00190	.0061	2.67
%RSD	.19352	.84410	.29737	.28388	.55306	1.1941

#1	<b>45.243</b>	<b>.01151</b>	<b>.08733</b>	<b>.66997</b>	<b>1.0900</b>	<b>220.18</b>
#2	<b>45.404</b>	<b>.01157</b>	<b>.08739</b>	<b>.66702</b>	<b>1.1021</b>	<b>224.20</b>
#3	<b>45.383</b>	<b>.01170</b>	<b>.08781</b>	<b>.66643</b>	<b>1.0951</b>	<b>225.22</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-1-B      Acquired: 10/28/2014 13:27:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>31.062</b>	<b>.24019</b>	<b>67.456</b>	<b>3.5023</b>	<b>.00992</b>	<b>109.88</b>
Stddev	.081	.00128	.157	.0239	.00047	.27
%RSD	.25985	.53251	.23230	.68396	4.7664	.24984

#1	31.053	.23979	67.286	3.4747	.00990	109.85
#2	31.147	.24162	67.489	3.5165	.01040	110.17
#3	30.986	.23916	67.594	3.5158	.00945	109.62

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26321</b>	<b>1.1074</b>	<b>.00290</b>	<b>.00763</b>	<b>3.3349</b>	<b>.13178</b>
Stddev	.00048	.0033	.00140	.00221	.0185	.00033
%RSD	.18228	.29676	48.404	29.038	.55342	.24705

#1	.26273	1.1036	.00128	.01006	3.3223	.13174
#2	.26320	1.1089	.00362	.00708	3.3561	.13147
#3	.26369	1.1096	.00379	.00573	3.3264	.13212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-1-B      Acquired: 10/28/2014 13:27:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.34839	3.6962	-.00553	.33784	1.6077
Stddev	.00254	.0253	.00100	.00305	.0018
%RSD	.72890	.68456	18.000	.90305	.11423

#1	.34979	3.6671	-.00588	.34132	1.6059
#2	.34992	3.7124	-.00630	.33565	1.6096
#3	.34546	3.7092	-.00441	.33654	1.6074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2405.8	4796.1	67413.	12696.
Stddev	1.9	7.2	211.	77.
%RSD	.07848	.15049	.31312	.60296

#1	2406.0	4795.2	67229.	12783.
#2	2407.6	4803.7	67365.	12641.
#3	2403.8	4789.3	67643.	12663.

Sample Name: 180-37595-A-2-B      Acquired: 10/28/2014 13:33:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03903	119.94	.09869	.25805	.71121	.00649
Stddev	.00022	.43	.00164	.00050	.00105	.00007
%RSD	.56917	.35460	1.6590	.19461	.14723	1.0929

#1	.03901	119.94	.09704	.25786	.71212	.00656
#2	.03881	120.37	.10031	.25768	.71006	.00641
#3	.03926	119.52	.09874	.25862	.71145	.00649

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.140	.01512	.09547	.75385	1.1401	233.17
Stddev	.332	.00009	.00029	.00520	.0113	1.59
%RSD	.73558	.59985	.30252	.68983	.99322	.68160

#1	45.016	.01522	.09575	.75318	1.1337	233.85
#2	45.517	.01511	.09517	.75936	1.1532	234.31
#3	44.889	.01503	.09550	.74902	1.1335	231.36

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-2-B      Acquired: 10/28/2014 13:33:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>32.559</b>	<b>.25490</b>	<b>68.149</b>	<b>4.6627</b>	<b>.01124</b>	<b>102.60</b>
Stddev	.043	.00114	.573	.0554	.00034	.18
%RSD	.13156	.44890	.84021	1.1886	3.0340	.17711

#1	32.588	.25619	67.975	4.6157	.01153	102.68
#2	32.579	.25402	68.789	4.7238	.01132	102.73
#3	32.510	.25449	67.684	4.6486	.01086	102.39

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29752</b>	<b>1.1932</b>	<b>.00424</b>	<b>.00721</b>	<b>3.1882</b>	<b>.13548</b>
Stddev	.00058	.0045	.00218	.00270	.0089	.00010
%RSD	.19610	.37453	51.428	37.443	.27815	.07675

#1	.29756	1.1983	.00649	.01010	3.1860	.13540
#2	.29691	1.1910	.00213	.00476	3.1980	.13560
#3	.29807	1.1902	.00411	.00676	3.1807	.13544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-2-B      Acquired: 10/28/2014 13:33:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37910	3.8592	-.00529	.39542	1.6752
Stddev	.00657	.0387	.00169	.00436	.0014
%RSD	1.7323	1.0039	31.996	1.1024	.08428

#1	.38600	3.8342	-.00520	.39986	1.6766
#2	.37837	3.9038	-.00364	.39115	1.6738
#3	.37292	3.8395	-.00702	.39525	1.6753

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2410.6	4829.7	67758.	12896.
Stddev	6.2	8.2	334.	146.
%RSD	.25618	.16934	.49269	1.1312

#1	2404.1	4821.6	67677.	12974.
#2	2416.4	4837.9	67471.	12728.
#3	2411.2	4829.5	68124.	12987.

Sample Name: 180-37595-B-3-O      Acquired: 10/28/2014 13:38:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04458	114.16	.08950	.24205	.73692	.00616
Stddev	.00012	.13	.00274	.00328	.00094	.00007
%RSD	.27639	.11267	3.0614	1.3551	.12731	1.1784

#1	.04453	114.23	.09175	.24504	.73722	.00621
#2	.04449	114.23	.09030	.24256	.73587	.00608
#3	.04472	114.01	.08645	.23854	.73768	.00620

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.659	.01652	.08717	.75088	1.4103	230.29
Stddev	.085	.00031	.00156	.00408	.0118	3.48
%RSD	.21966	1.8756	1.7852	.54377	.83767	1.5100

#1	38.711	.01678	.08859	.75558	1.4114	232.33
#2	38.705	.01661	.08742	.74873	1.4216	232.26
#3	38.561	.01618	.08551	.74831	1.3980	226.28

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O      Acquired: 10/28/2014 13:38:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>30.417</b>	<b>.24111</b>	<b>67.080</b>	<b>3.2311</b>	<b>.01228</b>	<b>102.38</b>
Stddev	.034	.00122	.314	.0281	.00005	.16
%RSD	.11125	.50464	.46807	.87050	.41740	.15560

#1	30.436	.24243	67.178	3.2461	.01233	102.56
#2	30.378	.24088	67.333	3.2486	.01223	102.25
#3	30.436	.24003	66.728	3.1987	.01228	102.32

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28624</b>	<b>1.3328</b>	<b>.00247</b>	<b>.00830</b>	<b>2.8030</b>	<b>.15465</b>
Stddev	.00333	.0183	.00155	.00287	.0042	.00220
%RSD	1.1640	1.3739	62.840	34.553	.15086	1.4245

#1	.28887	1.3449	.00333	.00889	2.7990	.15596
#2	.28735	1.3418	.00068	.00518	2.8025	.15588
#3	.28249	1.3118	.00339	.01082	2.8074	.15211

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O      Acquired: 10/28/2014 13:38:34      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.34303</b>	<b>3.6977</b>	<b>-.00412</b>	<b>.34465</b>	<b>1.9594</b>
Stddev	.00569	.0229	.00049	.00470	.0283
%RSD	1.6587	.61946	11.832	1.3643	1.4451

#1	.34952	3.6994	-.00367	.34307	1.9808
#2	.34071	3.7197	-.00464	.34093	1.9700
#3	.33887	3.6739	-.00404	.34993	1.9273

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2454.2</b>	<b>4861.0</b>	<b>68376.</b>	<b>12755.</b>
Stddev	31.7	55.0	368.	100.
%RSD	1.2915	1.1308	.53837	.78064

#1	2431.8	4821.0	67960.	12686.
#2	2440.4	4838.2	68660.	12710.
#3	2490.5	4923.6	68508.	12870.

Sample Name: 180-37595-B-3-O SD@5      Acquired: 10/28/2014 13:43:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00950	24.916	.02056	.05444	.16227	.00140
Stddev	.00042	.045	.00031	.00030	.00039	.00003
%RSD	4.4031	.18203	1.5305	.55271	.23988	2.4631

#1	.00906	24.955	.02033	.05479	.16198	.00139
#2	.00989	24.866	.02092	.05429	.16212	.00144
#3	.00956	24.927	.02042	.05424	.16271	.00138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6709	.00346	.01741	.16928	.31600	53.257
Stddev	.0295	.00008	.00013	.00101	.00198	.142
%RSD	.34027	2.3648	.77396	.59859	.62545	.26723

#1	8.7048	.00337	.01756	.17019	.31775	53.386
#2	8.6569	.00354	.01730	.16945	.31386	53.104
#3	8.6509	.00347	.01738	.16819	.31638	53.281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O SD@5      Acquired: 10/28/2014 13:43:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>6.6129</b>	<b>.05272</b>	<b>14.571</b>	<b>.76776</b>	<b>.00225</b>	<b>22.586</b>
Stddev	.0176	.00019	.063	.00643	.00013	.044
%RSD	.26594	.36117	.43427	.83806	5.8311	.19293

#1	6.6119	.05276	14.644	.77366	.00220	22.547
#2	6.5959	.05289	14.536	.76090	.00239	22.578
#3	6.6310	.05252	14.532	.76872	.00214	22.633

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05720</b>	<b>.27396</b>	<b>.00111</b>	<b>.00157</b>	<b>.61270</b>	<b>.03549</b>
Stddev	.00051	.00206	.00136	.00183	.00387	.00055
%RSD	.88831	.75162	122.45	116.20	.63222	1.5452

#1	.05761	.27612	.00157	.00010	.61274	.03585
#2	.05735	.27374	-.00042	.00362	.61656	.03485
#3	.05663	.27202	.00217	.00100	.60881	.03575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O SD@5      Acquired: 10/28/2014 13:43:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07917	.86140	-.00149	.07319	.45293
Stddev	.00008	.00707	.00142	.00135	.00082
%RSD	.10000	.82123	95.258	1.8459	.18069

#1	.07908	.86638	-.00008	.07176	.45379
#2	.07918	.85330	-.00292	.07336	.45284
#3	.07924	.86451	-.00147	.07445	.45216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2701.0	4634.0	65523.	11823.
Stddev	3.8	5.0	138.	85.
%RSD	.14049	.10702	.21071	.71697

#1	2696.7	4631.0	65458.	11746.
#2	2702.6	4639.7	65429.	11914.
#3	2703.7	4631.3	65681.	11810.

Sample Name: 180-37595-B-3-P MS      Acquired: 10/28/2014 13:48:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09288	178.88	.49435	1.0594	2.6258	.04634
Stddev	.00002	.31	.00119	.0021	.0065	.00004
%RSD	.02370	.17078	.24103	.19598	.24683	.09707

#1	.09291	178.68	.49298	1.0587	2.6223	.04633
#2	.09287	178.74	.49506	1.0577	2.6218	.04631
#3	.09287	179.23	.49503	1.0617	2.6333	.04640

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	81.933	.06048	.56217	1.0509	1.7957	267.03
Stddev	.141	.00022	.00086	.0041	.0083	2.10
%RSD	.17177	.36627	.15344	.38955	.46035	.78606

#1	81.774	.06060	.56316	1.0533	1.7902	265.85
#2	82.041	.06022	.56172	1.0533	1.7917	269.45
#3	81.985	.06060	.56162	1.0462	1.8052	265.79

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-B-3-P MS      Acquired: 10/28/2014 13:48:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>84.138</b>	<b>1.1247</b>	<b>116.25</b>	<b>3.9309</b>	<b>.77287</b>	<b>141.47</b>
Stddev	.164	.0019	.37	.0191	.00109	1.94
%RSD	.19455	.16524	.31836	.48511	.14099	1.3698

#1	84.038	1.1256	115.83	3.9266	.77328	141.38
#2	84.327	1.1225	116.44	3.9518	.77163	143.46
#3	84.049	1.1258	116.50	3.9144	.77369	139.58

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.80085</b>	<b>2.0186</b>	<b>.22539</b>	<b>.40577</b>	<b>5.5939</b>	<b>1.6046</b>
Stddev	.00174	.0039	.00127	.00318	.0291	.0015
%RSD	.21780	.19183	.56191	.78419	.52081	.09153

#1	.80114	2.0220	.22453	.40666	5.5653	1.6033
#2	.80244	2.0144	.22684	.40841	5.6235	1.6062
#3	.79898	2.0195	.22480	.40224	5.5930	1.6043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-P MS      Acquired: 10/28/2014 13:48:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1340	5.6404	.39098	.90957	2.6115
Stddev	.0022	.0053	.00416	.00185	.0062
%RSD	.19476	.09435	1.0632	.20349	.23653

#1	1.1360	5.6462	.39433	.90938	2.6087
#2	1.1317	5.6391	.39229	.91151	2.6186
#3	1.1344	5.6358	.38633	.90782	2.6072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2267.2	4800.5	67533.	13067.
Stddev	2.5	9.3	252.	15.
%RSD	.10876	.19463	.37291	.11808

#1	2267.6	4807.2	67329.	13081.
#2	2269.5	4804.4	67457.	13051.
#3	2264.6	4789.8	67815.	13070.

Sample Name: 180-37595-A-3-P MSD      Acquired: 10/28/2014 13:54:21      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09249	175.65	.50024	1.0860	2.5654	.04631
Stddev	.00030	.28	.00209	.0043	.0064	.00009
%RSD	.32935	.15973	.41780	.39148	.24786	.20271

#1	.09217	175.38	.49822	1.0834	2.5723	.04638
#2	.09253	175.94	.50240	1.0909	2.5642	.04620
#3	.09278	175.64	.50010	1.0837	2.5598	.04634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	179.48	.05900	.56473	1.0249	1.7546	263.43
Stddev	1.98	.00035	.00307	.0071	.0169	1.99
%RSD	1.1051	.59760	.54320	.69014	.96014	.75622

#1	177.49	.05893	.56253	1.0270	1.7356	261.16
#2	179.49	.05939	.56823	1.0170	1.7675	264.92
#3	181.46	.05870	.56342	1.0307	1.7609	264.19

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-3-P MSD      Acquired: 10/28/2014 13:54:21      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>82.921</b>	<b>1.1221</b>	<b>114.25</b>	<b>3.8477</b>	<b>.68533</b>	<b>139.58</b>
Stddev	.174	.0012	.37	.0294	.00371	1.73
%RSD	.21044	.10946	.32280	.76317	.54123	1.2416

#1	82.729	1.1230	113.82	3.8140	.68277	137.67
#2	83.071	1.1227	114.46	3.8609	.68959	141.05
#3	82.963	1.1207	114.46	3.8680	.68364	140.01

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.80215</b>	<b>1.9930</b>	<b>.18874</b>	<b>.40498</b>	<b>5.8167</b>	<b>1.4296</b>
Stddev	.00323	.0119	.00096	.00345	.0405	.0046
%RSD	.40208	.59489	.51116	.85293	.69610	.32176

#1	.79860	1.9849	.18948	.40240	5.7722	1.4257
#2	.80489	2.0066	.18909	.40891	5.8513	1.4347
#3	.80296	1.9875	.18765	.40365	5.8265	1.4285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-3-P MSD      Acquired: 10/28/2014 13:54:21      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.5851</b>	<b>5.5444</b>	<b>.39462</b>	<b>.89002</b>	<b>2.5240</b>
Stddev	.0068	.0480	.00566	.00279	.0158
%RSD	.43150	.86646	1.4336	.31387	.62750

#1	1.5818	5.4926	.39337	.89295	2.5124
#2	1.5805	5.5874	.40080	.88739	2.5420
#3	1.5929	5.5534	.38969	.88971	2.5176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2207.5</b>	<b>4715.6</b>	<b>66686.</b>	<b>12892.</b>
Stddev	9.6	18.9	86.	111.
%RSD	.43472	.40059	.12944	.85794

#1	2214.5	4726.8	66624.	13019.
#2	2196.6	4693.8	66784.	12820.
#3	2211.3	4726.2	66649.	12836.

Sample Name: 180-37595-B-3-O PDS      Acquired: 10/28/2014 13:59:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09114	113.03	.53771	1.1094	2.4993	.04846
Stddev	.00047	.11	.00082	.0006	.0017	.00017
%RSD	.51391	.09318	.15219	.05900	.06819	.34167

#1	.09156	112.94	.53686	1.1098	2.4977	.04829
#2	.09063	113.14	.53779	1.1087	2.5011	.04862
#3	.09122	113.02	.53849	1.1099	2.4992	.04845

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.920	.06080	.58785	.90149	1.5592	222.18
Stddev	.070	.00006	.00110	.00356	.0085	1.28
%RSD	.08602	.10350	.18780	.39517	.54438	.57462

#1	80.846	.06085	.58889	.90486	1.5533	223.56
#2	80.928	.06082	.58798	.90187	1.5554	221.95
#3	80.984	.06073	.58669	.89776	1.5690	221.04

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O PDS      Acquired: 10/28/2014 13:59:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>74.715</b>	<b>1.1387</b>	<b>108.90</b>	<b>3.4219</b>	<b>.86999</b>	<b>144.63</b>
Stddev	.152	.0058	.26	.0239	.00141	.55
%RSD	.20399	.51067	.23658	.69690	.16217	.38029

#1	74.590	1.1360	108.65	3.4164	.87153	144.70
#2	74.885	1.1454	108.89	3.4013	.86877	144.05
#3	74.669	1.1348	109.16	3.4480	.86967	145.14

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.77799</b>	<b>1.8014</b>	<b>.45909</b>	<b>.45753</b>	<b>11.608</b>	<b>1.7511</b>
Stddev	.00172	.0094	.00385	.00614	.011	.0016
%RSD	.22064	.51977	.83863	1.3415	.09213	.09230

#1	.77997	1.8114	.45710	.45381	11.596	1.7500
#2	.77687	1.7999	.45664	.45417	11.614	1.7530
#3	.77713	1.7929	.46353	.46462	11.615	1.7504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-3-O PDS      Acquired: 10/28/2014 13:59:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1527	4.3600	.44444	.82346	2.2945
Stddev	.0014	.0212	.00283	.00555	.0027
%RSD	.11749	.48621	.63773	.67352	.11696

#1	1.1521	4.3468	.44766	.82387	2.2966
#2	1.1517	4.3489	.44234	.82880	2.2954
#3	1.1543	4.3845	.44330	.81772	2.2914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2308.6	4738.5	66457.	12675.
Stddev	1.2	7.4	105.	37.
%RSD	.05222	.15587	.15813	.29059

#1	2308.2	4745.5	66349.	12690.
#2	2309.9	4739.1	66461.	12701.
#3	2307.6	4730.8	66559.	12632.



Sample Name: 180-37595-A-4-S      Acquired: 10/28/2014 14:05:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05047	137.35	.08510	.32511	.88538	.00624
Stddev	.00024	.61	.00331	.00100	.00470	.00004
%RSD	.48046	.44293	3.8870	.30661	.53059	.63489

#1	.05074	136.93	.08870	.32405	.88207	.00627
#2	.05027	137.06	.08218	.32525	.88330	.00620
#3	.05041	138.04	.08444	.32603	.89075	.00625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	521.18	.02287	.09342	.76571	1.5602	213.94
Stddev	4.39	.00012	.00068	.00061	.0063	1.64
%RSD	.84315	.52828	.73245	.07983	.40089	.76529

#1	518.85	.02291	.09266	.76627	1.5582	212.86
#2	518.45	.02274	.09400	.76506	1.5552	213.13
#3	526.25	.02298	.09359	.76581	1.5672	215.82

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-4-S      Acquired: 10/28/2014 14:05:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>36.894</b>	<b>.23172</b>	<b>80.173</b>	<b>2.7067</b>	<b>.03711</b>	<b>92.674</b>
Stddev	.198	.00079	.235	.0014	.00041	.505
%RSD	.53554	.33910	.29273	.05204	1.0989	.54509

#1	<b>36.780</b>	<b>.23186</b>	<b>79.962</b>	<b>2.7078</b>	<b>.03664</b>	<b>92.353</b>
#2	<b>36.779</b>	<b>.23087</b>	<b>80.133</b>	<b>2.7051</b>	<b>.03726</b>	<b>92.413</b>
#3	<b>37.122</b>	<b>.23242</b>	<b>80.426</b>	<b>2.7071</b>	<b>.03741</b>	<b>93.257</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.81959</b>	<b>1.6302</b>	<b>.00148</b>	<b>.00860</b>	<b>5.8572</b>	<b>.14598</b>
Stddev	.00627	.0138	.00069	.00272	.0437	.00111
%RSD	.76462	.84514	46.876	31.571	.74517	.75736

#1	<b>.81249</b>	<b>1.6164</b>	<b>.00222</b>	<b>.00787</b>	<b>5.8320</b>	<b>.14490</b>
#2	<b>.82194</b>	<b>1.6303</b>	<b>.00134</b>	<b>.00633</b>	<b>5.8321</b>	<b>.14592</b>
#3	<b>.82435</b>	<b>1.6440</b>	<b>.00086</b>	<b>.01161</b>	<b>5.9076</b>	<b>.14711</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-4-S      Acquired: 10/28/2014 14:05:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9298</b>	<b>4.8464</b>	<b>-.00598</b>	<b>.39314</b>	<b>3.4421</b>
Stddev	.0114	.0200	.00215	.00265	.0225
%RSD	.39044	.41344	36.008	.67457	.65424

#1	2.9216	4.8356	-.00678	.39532	3.4169
#2	2.9248	4.8340	-.00763	.39019	3.4492
#3	2.9428	4.8695	-.00354	.39392	3.4603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2183.4</b>	<b>4578.9</b>	<b>64271.</b>	<b>12575.</b>
Stddev	10.0	17.2	44.	25.
%RSD	.45941	.37598	.06795	.19715

#1	2194.3	4597.3	64321.	12602.
#2	2181.4	4576.3	64240.	12568.
#3	2174.6	4563.2	64253.	12554.

Sample Name: CCV 1369837      Acquired: 10/28/2014 14:10:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0389	25.091	.51987	2.0736	2.0100	1.9785
Stddev	.0025	.030	.00214	.0038	.0083	.0052
%RSD	.23871	.12145	.41110	.18355	.41155	.26329

#1	1.0410	25.125	.51740	2.0774	2.0161	1.9827
#2	1.0396	25.081	.52100	2.0736	2.0132	1.9801
#3	1.0361	25.067	.52120	2.0698	2.0006	1.9727

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.059	.51378	2.0791	2.0005	1.8869	25.562
Stddev	.130	.00067	.0009	.0087	.0073	.020
%RSD	.25886	.12958	.04403	.43267	.38397	.07794

#1	50.183	.51323	2.0800	2.0082	1.8846	25.570
#2	49.925	.51452	2.0791	2.0023	1.8811	25.576
#3	50.069	.51360	2.0781	1.9911	1.8950	25.539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 14:10:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.02	2.0154	49.455	1.8401	1.9631	129.02
Stddev	.40	.0075	.124	.0072	.0009	.30
%RSD	.31486	.37237	.24998	.39198	.04603	.23255

#1	126.47	2.0193	49.598	1.8464	1.9640	129.33
#2	125.83	2.0202	49.388	1.8322	1.9629	129.00
#3	125.75	2.0068	49.380	1.8417	1.9623	128.73

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0506	.50156	.50964	.51154	2.0394	1.8936
Stddev	.0042	.00207	.00243	.00277	.0139	.0026
%RSD	.20428	.41273	.47608	.54078	.67985	.13563

#1	2.0544	.50167	.51159	.51287	2.0481	1.8911
#2	2.0512	.49944	.51041	.50836	2.0466	1.8933
#3	2.0461	.50358	.50692	.51339	2.0234	1.8962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 14:10:30      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9194	1.9061	.95984	2.1721	1.9598
Stddev	.0092	.0058	.00063	.0108	.0012
%RSD	.48096	.30664	.06582	.49564	.06287

#1	1.9242	1.9087	.95913	2.1768	1.9584
#2	1.9253	1.8994	.96034	2.1797	1.9602
#3	1.9088	1.9101	.96005	2.1598	1.9607

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2388.8	4311.2	60619.	11299.
Stddev	3.7	6.5	146.	32.
%RSD	.15435	.15022	.24073	.28288

#1	2385.8	4305.8	60542.	11277.
#2	2387.8	4309.5	60529.	11336.
#3	2392.9	4318.4	60788.	11284.

Sample Name: CCB10      Acquired: 10/28/2014 14:15:17      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00763	.00190	.00142	.00003	.00009
Stddev	.00033	.00890	.00117	.00031	.00011	.00008
%RSD	202.61	116.64	61.310	21.804	359.39	81.475

#1	-.00020	-.01690	.00167	.00145	.00007	.00012
#2	.00024	.00084	.00087	.00172	.00012	.00001
#3	.00044	-.00683	.00317	.00110	-.00010	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00687	.00007	.00008	.00033	.00081	.00137
Stddev	.00182	.00008	.00020	.00013	.00011	.00102
%RSD	26.551	111.69	244.20	39.411	13.565	73.887

#1	-.00821	.00015	.00030	.00029	.00078	.00046
#2	-.00479	.00000	-.00009	.00023	.00071	.00120
#3	-.00761	.00005	.00004	.00048	.00093	.00247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB10      Acquired: 10/28/2014 14:15:17      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02076	-.00032	-.00503	.00007	.00142	.02173
Stddev	.03831	.00081	.00326	.00007	.00037	.00537
%RSD	184.49	252.81	64.719	103.60	25.807	24.717

#1	.05756	-.00024	-.00836	.00015	.00174	.01634
#2	-.01889	-.00116	-.00489	.00003	.00150	.02708
#3	.02362	.00045	-.00185	.00002	.00102	.02176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00068	.00132	.00030	.00000	-.00006
Stddev	.00019	.00041	.00124	.00310	.00080	.00017
%RSD	75.395	61.025	93.950	1038.2	32682.	305.63

#1	.00015	.00038	.00241	-.00068	-.00073	.00014
#2	.00048	.00050	.00159	-.00219	.00086	-.00015
#3	.00014	.00115	-.00003	.00377	-.00012	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: CCB10      Acquired: 10/28/2014 14:15:17      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00283	.00022	.00080	.00035	-.00015
Stddev	.00169	.00011	.00026	.00159	.00015
%RSD	59.500	52.218	32.191	453.54	98.259

#1	.00476	.00034	.00083	-.00118	.00001
#2	.00211	.00020	.00052	.00200	-.00017
#3	.00163	.00011	.00103	.00023	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2920.2	4573.6	65723.	11506.
Stddev	4.1	14.3	180.	93.
%RSD	.13869	.31241	.27311	.80921

#1	2916.1	4560.8	65603.	11403.
#2	2920.2	4571.0	65929.	11532.
#3	2924.2	4589.0	65636.	11584.

Sample Name: 180-37595-A-5-AF      Acquired: 10/28/2014 14:20:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03889	141.09	.08036	.30861	.86125	.00642
Stddev	.00061	.45	.00204	.00117	.00227	.00011
%RSD	1.5735	.31882	2.5396	.37756	.26395	1.6701

#1	.03930	141.49	.08257	.30806	.86327	.00647
#2	.03819	140.61	.07998	.30783	.85879	.00629
#3	.03919	141.18	.07854	.30995	.86168	.00648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	494.54	.01776	.09333	.68784	1.3537	213.39
Stddev	3.09	.00018	.00031	.00760	.0078	1.19
%RSD	.62503	1.0133	.33133	1.1045	.57898	.55606

#1	496.90	.01792	.09357	.68947	1.3625	214.69
#2	491.04	.01756	.09343	.67956	1.3474	212.37
#3	495.68	.01781	.09298	.69449	1.3512	213.12

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-5-AF      Acquired: 10/28/2014 14:20:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.320</b>	<b>.24605</b>	<b>77.594</b>	<b>2.8449</b>	<b>.01558</b>	<b>93.026</b>
Stddev	.085	.00069	.320	.0204	.00009	.227
%RSD	.21541	.28019	.41296	.71516	.56603	.24391

#1	39.334	.24660	77.881	2.8651	.01568	93.174
#2	39.230	.24528	77.248	2.8244	.01554	92.765
#3	39.398	.24627	77.654	2.8451	.01551	93.139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.41938</b>	<b>1.3304</b>	<b>.00306</b>	<b>.01051</b>	<b>5.7098</b>	<b>.15829</b>
Stddev	.00105	.0062	.00291	.00368	.0359	.00044
%RSD	.24958	.46819	95.053	35.034	.62907	.27569

#1	.41832	1.3232	.00204	.01389	5.7402	.15787
#2	.41940	1.3340	.00635	.01106	5.6702	.15874
#3	.42042	1.3339	.00080	.00659	5.7191	.15828

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-5-AF      Acquired: 10/28/2014 14:20:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9173</b>	<b>4.9616</b>	<b>-.00784</b>	<b>.36745</b>	<b>2.7891</b>
Stddev	.0056	.0164	.00255	.00213	.0093
%RSD	.19180	.33002	32.526	.58098	.33257

#1	2.9226	4.9780	-.00518	.36667	2.7785
#2	2.9115	4.9452	-.00807	.36581	2.7954
#3	2.9179	4.9615	-.01026	.36986	2.7936

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2184.5</b>	<b>4596.8</b>	<b>64464.</b>	<b>12482.</b>
Stddev	1.2	7.5	547.	62.
%RSD	.05481	.16210	.84805	.49880

#1	2184.8	4598.7	64419.	12414.
#2	2183.1	4588.6	65032.	12537.
#3	2185.4	4603.2	63942.	12495.

Sample Name: 180-37595-A-6-T      Acquired: 10/28/2014 14:25:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04261	143.12	.08590	.31374	.82343	.00665
Stddev	.00010	.58	.00204	.00165	.00276	.00008
%RSD	.23181	.40491	2.3721	.52614	.33569	1.2224

#1	.04266	142.71	.08660	.31495	.82236	.00665
#2	.04249	142.87	.08361	.31441	.82136	.00657
#3	.04266	143.79	.08750	.31186	.82657	.00673

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	528.84	.01474	.09500	.71876	1.2438	219.96
Stddev	3.69	.00016	.00072	.00129	.0055	2.30
%RSD	.69681	1.0650	.75914	.18016	.44376	1.0474

#1	525.11	.01481	.09449	.71905	1.2435	222.18
#2	528.93	.01486	.09469	.71990	1.2384	217.58
#3	532.48	.01457	.09582	.71735	1.2495	220.11

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-6-T      Acquired: 10/28/2014 14:25:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.752</b>	<b>.25635</b>	<b>76.104</b>	<b>3.2243</b>	<b>.00880</b>	<b>94.388</b>
Stddev	.161	.00130	.417	.0277	.00036	.270
%RSD	.40585	.50830	.54775	.85947	4.0951	.28595

#1	39.664	.25638	75.817	3.2364	.00922	94.264
#2	39.654	.25504	75.912	3.1926	.00863	94.202
#3	39.938	.25765	76.582	3.2440	.00857	94.697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29846</b>	<b>1.1653</b>	<b>-.00152</b>	<b>.01132</b>	<b>4.7134</b>	<b>.13284</b>
Stddev	.00075	.0059	.00069	.00282	.0238	.00073
%RSD	.25275	.50647	45.068	24.958	.50536	.54917

#1	.29823	1.1710	-.00088	.00805	4.6966	.13300
#2	.29784	1.1658	-.00144	.01292	4.7030	.13204
#3	.29930	1.1592	-.00225	.01297	4.7407	.13347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-6-T      Acquired: 10/28/2014 14:25:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.0252</b>	<b>4.8998</b>	<b>-.00750</b>	<b>.36249</b>	<b>2.2749</b>
Stddev	.0051	.0285	.00053	.00208	.0019
%RSD	.16740	.58231	7.1123	.57320	.08560

#1	3.0285	4.8971	-.00753	.36035	2.2767
#2	3.0194	4.8727	-.00802	.36263	2.2728
#3	3.0278	4.9296	-.00695	.36450	2.2750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2178.0</b>	<b>4601.6</b>	<b>64442.</b>	<b>12556.</b>
Stddev	1.7	6.0	118.	68.
%RSD	.07860	.12971	.18254	.54093

#1	2176.7	4598.7	64400.	12554.
#2	2177.3	4597.5	64352.	12624.
#3	2179.9	4608.4	64575.	12489.

Sample Name: 180-37595-A-7-R      Acquired: 10/28/2014 14:31:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03098	139.59	.07356	.30631	.77181	.00641
Stddev	.00020	.19	.00119	.00023	.00149	.00006
%RSD	.63273	.13921	1.6110	.07568	.19287	.90086

#1	.03096	139.46	.07485	.30606	.77013	.00634
#2	.03080	139.81	.07331	.30652	.77233	.00641
#3	.03119	139.49	.07252	.30634	.77297	.00646

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	519.66	.01140	.09037	.62971	.96900	211.75
Stddev	2.61	.00010	.00037	.00181	.00302	.82
%RSD	.50144	.83998	.40920	.28818	.31187	.38566

#1	518.99	.01131	.09006	.62769	.97214	211.62
#2	522.53	.01150	.09027	.63120	.96611	212.62
#3	517.45	.01140	.09078	.63024	.96873	211.00

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-7-R      Acquired: 10/28/2014 14:31:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>38.908</b>	<b>.25133</b>	<b>74.924</b>	<b>3.0436</b>	<b>.00789</b>	<b>94.603</b>
Stddev	.076	.00057	.167	.0154	.00008	.180
%RSD	.19663	.22764	.22314	.50612	1.0433	.18979

#1	<b>38.827</b>	<b>.25089</b>	<b>75.115</b>	<b>3.0331</b>	<b>.00795</b>	<b>94.413</b>
#2	<b>38.920</b>	<b>.25112</b>	<b>74.852</b>	<b>3.0613</b>	<b>.00792</b>	<b>94.626</b>
#3	<b>38.978</b>	<b>.25198</b>	<b>74.804</b>	<b>3.0364</b>	<b>.00779</b>	<b>94.769</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26252</b>	<b>1.0070</b>	<b>-.00152</b>	<b>.00838</b>	<b>4.9983</b>	<b>.12084</b>
Stddev	.00029	.0008	.00164	.00307	.0160	.00119
%RSD	.11119	.07530	107.47	36.605	.32070	.98594

#1	<b>.26259</b>	<b>1.0075</b>	<b>-.00246</b>	<b>.00938</b>	<b>4.9920</b>	<b>.12208</b>
#2	<b>.26276</b>	<b>1.0074</b>	<b>-.00249</b>	<b>.01081</b>	<b>4.9865</b>	<b>.12072</b>
#3	<b>.26219</b>	<b>1.0062</b>	<b>.00037</b>	<b>.00493</b>	<b>5.0166</b>	<b>.11971</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-7-R      Acquired: 10/28/2014 14:31:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9835</b>	<b>4.7175</b>	<b>-.00892</b>	<b>.34088</b>	<b>2.0808</b>
Stddev	.0033	.0178	.00164	.00334	.0016
%RSD	.11184	.37758	18.373	.98021	.07814

#1	<b>2.9840</b>	<b>4.7135</b>	<b>-.01037</b>	<b>.33744</b>	<b>2.0818</b>
#2	<b>2.9866</b>	<b>4.7020</b>	<b>-.00714</b>	<b>.34108</b>	<b>2.0789</b>
#3	<b>2.9799</b>	<b>4.7369</b>	<b>-.00924</b>	<b>.34412</b>	<b>2.0817</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2169.8</b>	<b>4560.1</b>	<b>63871.</b>	<b>12511.</b>
Stddev	2.4	5.6	193.	23.
%RSD	.11039	.12174	.30218	.18598

#1	<b>2171.4</b>	<b>4562.8</b>	<b>64002.</b>	<b>12485.</b>
#2	<b>2167.0</b>	<b>4553.7</b>	<b>63649.</b>	<b>12520.</b>
#3	<b>2170.9</b>	<b>4563.7</b>	<b>63962.</b>	<b>12529.</b>

Sample Name: 180-37595-A-8-R      Acquired: 10/28/2014 14:36:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03776</b>	<b>149.89</b>	<b>.08139</b>	<b>.32652</b>	<b>.81968</b>	<b>.00683</b>
Stddev	.00025	.29	.00211	.00015	.00146	.00004
%RSD	.67419	.19340	2.5892	.04617	.17810	.54458

#1	<b>.03752</b>	<b>149.76</b>	<b>.08206</b>	<b>.32643</b>	<b>.82068</b>	<b>.00681</b>
#2	<b>.03803</b>	<b>149.69</b>	<b>.08309</b>	<b>.32669</b>	<b>.81801</b>	<b>.00687</b>
#3	<b>.03774</b>	<b>150.22</b>	<b>.07904</b>	<b>.32643</b>	<b>.82036</b>	<b>.00680</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>584.35</b>	<b>.01275</b>	<b>.09801</b>	<b>.68622</b>	<b>1.1391</b>	<b>221.88</b>
Stddev	2.21	.00010	.00022	.00299	.0022	1.92
%RSD	.37803	.78182	.22453	.43539	.19430	.86448

#1	<b>582.74</b>	<b>.01275</b>	<b>.09778</b>	<b>.68362</b>	<b>1.1373</b>	<b>220.31</b>
#2	<b>583.44</b>	<b>.01265</b>	<b>.09803</b>	<b>.68555</b>	<b>1.1385</b>	<b>224.01</b>
#3	<b>586.87</b>	<b>.01285</b>	<b>.09821</b>	<b>.68948</b>	<b>1.1416</b>	<b>221.31</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-8-R      Acquired: 10/28/2014 14:36:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>41.076</b>	<b>.26484</b>	<b>79.113</b>	<b>3.2940</b>	<b>.00871</b>	<b>96.024</b>
Stddev	.149	.00033	.147	.0045	.00026	.230
%RSD	.36280	.12396	.18549	.13550	3.0128	.23972

#1	40.991	.26522	79.101	3.2889	.00870	95.932
#2	40.988	.26468	78.972	3.2960	.00898	95.853
#3	41.248	.26462	79.265	3.2971	.00846	96.286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28002</b>	<b>1.0892</b>	<b>-.00244</b>	<b>.00967</b>	<b>4.5631</b>	<b>.12591</b>
Stddev	.00162	.0036	.00081	.00192	.0194	.00032
%RSD	.58029	.33331	33.186	19.816	.42483	.25798

#1	.27945	1.0857	-.00292	.00869	4.5423	.12567
#2	.27876	1.0929	-.00150	.01188	4.5662	.12628
#3	.28186	1.0890	-.00289	.00844	4.5807	.12577

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-8-R      Acquired: 10/28/2014 14:36:47      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.2258</b>	<b>5.1213</b>	<b>-.00956</b>	<b>.36444</b>	<b>2.2429</b>
Stddev	.0052	.0006	.00212	.00113	.0037
%RSD	.16134	.01151	22.173	.30882	.16392

#1	3.2218	5.1219	-.01035	.36553	2.2464
#2	3.2240	5.1208	-.00716	.36328	2.2391
#3	3.2317	5.1212	-.01117	.36452	2.2432

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2147.1</b>	<b>4560.5</b>	<b>63974.</b>	<b>12455.</b>
Stddev	2.6	6.8	159.	26.
%RSD	.12144	.14814	.24883	.21092

#1	2145.1	4552.7	64015.	12474.
#2	2150.1	4564.8	64108.	12467.
#3	2146.1	4563.9	63798.	12425.

Sample Name: 180-37595-A-9-R      Acquired: 10/28/2014 14:42:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04040</b>	<b>148.34</b>	<b>.08079</b>	<b>.32180</b>	<b>.83226</b>	<b>.00679</b>
Stddev	.00027	.44	.00017	.00309	.00184	.00005
%RSD	.65773	.29824	.21196	.95956	.22070	.69109

#1	<b>.04012</b>	<b>148.75</b>	<b>.08077</b>	<b>.32398</b>	<b>.83427</b>	<b>.00684</b>
#2	<b>.04044</b>	<b>147.87</b>	<b>.08097</b>	<b>.32314</b>	<b>.83184</b>	<b>.00678</b>
#3	<b>.04065</b>	<b>148.40</b>	<b>.08063</b>	<b>.31826</b>	<b>.83067</b>	<b>.00675</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>541.74</b>	<b>.01364</b>	<b>.09699</b>	<b>.70405</b>	<b>1.1366</b>	<b>219.68</b>
Stddev	3.66	.00017	.00059	.00286	.0053	.88
%RSD	.67574	1.2712	.61117	.40656	.46659	.39858

#1	<b>539.10</b>	<b>.01373</b>	<b>.09734</b>	<b>.70366</b>	<b>1.1394</b>	<b>220.68</b>
#2	<b>540.20</b>	<b>.01374</b>	<b>.09733</b>	<b>.70141</b>	<b>1.1305</b>	<b>219.28</b>
#3	<b>545.92</b>	<b>.01344</b>	<b>.09631</b>	<b>.70709</b>	<b>1.1399</b>	<b>219.07</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-9-R      Acquired: 10/28/2014 14:42:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>41.897</b>	<b>.26618</b>	<b>76.459</b>	<b>3.1857</b>	<b>.00896</b>	<b>94.303</b>
Stddev	.145	.00095	.435	.0297	.00027	.202
%RSD	.34528	.35511	.56856	.93319	3.0109	.21433

#1	42.064	.26715	76.424	3.1955	.00925	94.525
#2	41.804	.26613	76.043	3.1523	.00872	94.252
#3	41.823	.26527	76.910	3.2093	.00891	94.130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28179</b>	<b>1.1300</b>	<b>-.00251</b>	<b>.01284</b>	<b>5.4111</b>	<b>.12998</b>
Stddev	.00289	.0040	.00135	.00302	.0141	.00140
%RSD	1.0245	.34924	54.020	23.516	.25960	1.0754

#1	.28355	1.1343	-.00407	.01254	5.4219	.13098
#2	.28337	1.1289	-.00163	.00999	5.3952	.13058
#3	.27846	1.1266	-.00183	.01600	5.4161	.12838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-9-R      Acquired: 10/28/2014 14:42:16      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.1036</b>	<b>5.1116</b>	<b>-.00821</b>	<b>.37878</b>	<b>2.2740</b>
Stddev	.0156	.0353	.00278	.00239	.0111
%RSD	.50229	.69137	33.843	.63081	.48865

#1	3.0960	5.1040	-.00720	.37950	2.2815
#2	3.0933	5.0806	-.00607	.38073	2.2793
#3	3.1216	5.1501	-.01135	.37611	2.2612

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2163.3</b>	<b>4591.9</b>	<b>63993.</b>	<b>12575.</b>
Stddev	14.7	33.2	285.	73.
%RSD	.67782	.72294	.44571	.58200

#1	2152.5	4564.0	63901.	12566.
#2	2157.4	4583.1	64313.	12652.
#3	2180.0	4628.6	63765.	12507.



Sample Name: 180-37595-A-10-P      Acquired: 10/28/2014 14:47:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05187	169.59	.08541	.36612	.94125	.00769
Stddev	.00019	.50	.00282	.00158	.00100	.00005
%RSD	.36240	.29549	3.3060	.43193	.10600	.61180

#1	.05205	169.28	.08236	.36453	.94021	.00764
#2	.05167	170.17	.08594	.36613	.94221	.00773
#3	.05189	169.33	.08794	.36769	.94131	.00770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 635.79	.01649	.10982	.80315	1.3954	243.55
Stddev	4.19	.00025	.00048	.00618	.0112	2.65
%RSD	.65881	1.5298	.43521	.76906	.80336	1.0875

#1	633.63	.01671	.11034	.79618	1.3965	244.08
#2	640.62	.01621	.10971	.80533	1.4060	245.89
#3	633.13	.01655	.10941	.80795	1.3836	240.68

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	600.00					
Low Limit	-5.0000					

Sample Name: 180-37595-A-10-P      Acquired: 10/28/2014 14:47:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>45.013</b>	<b>.29766</b>	<b>85.861</b>	<b>3.4693</b>	<b>.01159</b>	<b>93.849</b>
Stddev	.114	.00019	.688	.0226	.00046	.152
%RSD	.25401	.06267	.80091	.65169	3.9557	.16189

#1	44.895	.29783	85.685	3.4611	.01168	93.701
#2	45.124	.29746	86.620	3.4949	.01110	94.005
#3	45.020	.29769	85.279	3.4520	.01200	93.840

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.32627</b>	<b>1.3445</b>	<b>.00058</b>	<b>.01131</b>	<b>4.5090</b>	<b>.14338</b>
Stddev	.00060	.0048	.00169	.00535	.0105	.00051
%RSD	.18429	.35642	290.08	47.285	.23317	.35383

#1	.32578	1.3454	.00092	.01508	4.5086	.14367
#2	.32694	1.3393	.00207	.01365	4.5197	.14279
#3	.32609	1.3488	-.00125	.00519	4.4987	.14367

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-10-P      Acquired: 10/28/2014 14:47:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.5970</b>	<b>5.6877</b>	<b>-.00995</b>	<b>.42102</b>	<b>2.6624</b>
Stddev	.0246	.0548	.00126	.00293	.0051
%RSD	.68386	.96284	12.701	.69596	.19097

#1	<b>3.5833</b>	<b>5.6804</b>	<b>-.00851</b>	<b>.41793</b>	<b>2.6632</b>
#2	<b>3.6254</b>	<b>5.7457</b>	<b>-.01087</b>	<b>.42136</b>	<b>2.6569</b>
#3	<b>3.5823</b>	<b>5.6369</b>	<b>-.01047</b>	<b>.42376</b>	<b>2.6670</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2120.6</b>	<b>4594.9</b>	<b>64466.</b>	<b>12684.</b>
Stddev	4.2	8.1	282.	112.
%RSD	.20006	.17691	.43723	.88094

#1	<b>2121.1</b>	<b>4596.8</b>	<b>64766.</b>	<b>12682.</b>
#2	<b>2124.6</b>	<b>4601.9</b>	<b>64206.</b>	<b>12574.</b>
#3	<b>2116.1</b>	<b>4586.0</b>	<b>64427.</b>	<b>12798.</b>

Sample Name: 180-37595-A-11-P      Acquired: 10/28/2014 14:53:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04178</b>	<b>144.07</b>	<b>.07416</b>	<b>.27038</b>	<b>.81724</b>	<b>.00655</b>
Stddev	.00053	.22	.00297	.00030	.00037	.00005
%RSD	1.2720	.15240	4.0000	.11144	.04553	.79442

#1	<b>.04127</b>	<b>144.25</b>	<b>.07149</b>	<b>.27061</b>	<b>.81741</b>	<b>.00649</b>
#2	<b>.04233</b>	<b>143.83</b>	<b>.07736</b>	<b>.27004</b>	<b>.81682</b>	<b>.00657</b>
#3	<b>.04172</b>	<b>144.14</b>	<b>.07364</b>	<b>.27050</b>	<b>.81750</b>	<b>.00659</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>563.04</b>	<b>.01604</b>	<b>.09345</b>	<b>.70467</b>	<b>1.3652</b>	<b>209.01</b>
Stddev	3.94	.00018	.00024	.00492	.0044	1.79
%RSD	.69963	1.1331	.25626	.69847	.32125	.85807

#1	<b>560.78</b>	<b>.01623</b>	<b>.09335</b>	<b>.70412</b>	<b>1.3684</b>	<b>208.58</b>
#2	<b>560.76</b>	<b>.01587</b>	<b>.09373</b>	<b>.70985</b>	<b>1.3602</b>	<b>207.47</b>
#3	<b>567.59</b>	<b>.01603</b>	<b>.09328</b>	<b>.70005</b>	<b>1.3669</b>	<b>210.98</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37595-A-11-P      Acquired: 10/28/2014 14:53:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>37.394</b>	<b>.24934</b>	<b>72.825</b>	<b>2.8781</b>	<b>.01519</b>	<b>48.607</b>
Stddev	.083	.00215	.033	.0107	.00016	.081
%RSD	.22300	.86204	.04482	.37291	1.0731	.16611
#1	37.420	.24865	72.821	2.8855	.01503	48.602
#2	37.301	.24762	72.795	2.8658	.01535	48.529
#3	37.462	.25175	72.860	2.8831	.01519	48.691

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29036</b>	<b>1.2729</b>	<b>.00007</b>	<b>.00831</b>	<b>4.3687</b>	<b>.12776</b>
Stddev	.00175	.0111	.00140	.00360	.0151	.00081
%RSD	.60427	.87124	2064.6	43.290	.34515	.63439
#1	.29235	1.2839	.00128	.01244	4.3786	.12862
#2	.28905	1.2730	.00039	.00660	4.3761	.12763
#3	.28967	1.2618	-.00147	.00589	4.3513	.12701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-11-P      Acquired: 10/28/2014 14:53:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.1124</b>	<b>5.0013</b>	<b>-.00843</b>	<b>.36766</b>	<b>2.5820</b>
Stddev	.0096	.0151	.00158	.00466	.0102
%RSD	.30933	.30102	18.723	1.2670	.39469

#1	3.1224	5.0023	-.00875	.36614	2.5920
#2	3.1114	4.9858	-.00671	.37289	2.5822
#3	3.1033	5.0159	-.00982	.36396	2.5716

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2184.7</b>	<b>4590.1</b>	<b>64505.</b>	<b>12490.</b>
Stddev	5.1	7.8	336.	31.
%RSD	.23262	.16978	.52026	.24596

#1	2179.1	4583.1	64680.	12482.
#2	2185.7	4588.6	64118.	12524.
#3	2189.2	4598.5	64716.	12464.

Sample Name: 180-37595-A-12-P      Acquired: 10/28/2014 14:58:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03915	145.97	.08633	.31721	.84144	.00668
Stddev	.00121	.17	.00255	.00230	.00084	.00005
%RSD	3.0940	.11851	2.9507	.72539	.09963	.71771

#1	.03775	146.14	.08598	.31769	.84154	.00673
#2	.03979	145.97	.08903	.31924	.84222	.00663
#3	.03991	145.79	.08397	.31471	.84055	.00670

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	553.48	.01509	.09871	.70101	1.2282	221.56
Stddev	1.51	.00013	.00026	.01823	.0074	2.22
%RSD	.27324	.85874	.25886	2.6009	.60113	1.0018

#1	552.55	.01519	.09900	.68023	1.2211	219.30
#2	555.22	.01494	.09863	.70848	1.2358	221.62
#3	552.66	.01512	.09851	.71432	1.2278	223.74

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-12-P      Acquired: 10/28/2014 14:58:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.861</b>	<b>.26067</b>	<b>78.108</b>	<b>3.1527</b>	<b>.01043</b>	<b>94.883</b>
Stddev	.044	.00110	.294	.0263	.00006	.150
%RSD	.10991	.42338	.37584	.83528	.58805	.15861

#1	39.909	.26144	78.253	3.1224	.01037	94.959
#2	39.852	.26115	77.770	3.1671	.01050	94.980
#3	39.823	.25940	78.301	3.1688	.01043	94.709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.32645</b>	<b>1.2042</b>	<b>-.00216</b>	<b>.00885</b>	<b>3.5637</b>	<b>.14310</b>
Stddev	.00097	.0025	.00154	.00427	.0113	.00117
%RSD	.29615	.20860	71.411	48.253	.31731	.81997

#1	.32605	1.2054	-.00394	.00498	3.5671	.14195
#2	.32756	1.2013	-.00129	.00812	3.5511	.14430
#3	.32576	1.2059	-.00125	.01343	3.5729	.14304

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-12-P      Acquired: 10/28/2014 14:58:33      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.0911</b>	<b>4.9853</b>	<b>-.00755</b>	<b>.37072</b>	<b>2.4409</b>
Stddev	.0079	.0209	.00290	.00741	.0072
%RSD	.25510	.42006	38.428	1.9978	.29572

#1	<b>3.0882</b>	<b>4.9622</b>	<b>-.01088</b>	<b>.36223</b>	<b>2.4388</b>
#2	<b>3.0850</b>	<b>5.0031</b>	<b>-.00627</b>	<b>.37586</b>	<b>2.4349</b>
#3	<b>3.1000</b>	<b>4.9906</b>	<b>-.00551</b>	<b>.37408</b>	<b>2.4489</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2162.6</b>	<b>4593.3</b>	<b>65185.</b>	<b>12741.</b>
Stddev	4.1	11.0	1449.	16.
%RSD	.19004	.24018	2.2225	.12271

#1	<b>2160.1</b>	<b>4586.2</b>	<b>66857.</b>	<b>12759.</b>
#2	<b>2160.4</b>	<b>4587.6</b>	<b>64384.</b>	<b>12732.</b>
#3	<b>2167.3</b>	<b>4606.0</b>	<b>64313.</b>	<b>12732.</b>

Sample Name: 180-37595-B-13-D      Acquired: 10/28/2014 15:04:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06202	123.42	.10030	.32050	.91740	.00640
Stddev	.00057	.06	.00386	.00477	.00153	.00007
%RSD	.92276	.04846	3.8490	1.4871	.16667	1.0855

#1	.06174	123.49	.09773	.32119	.91589	.00635
#2	.06164	123.38	.09844	.31542	.91737	.00636
#3	.06268	123.38	.10474	.32488	.91894	.00648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	89.726	.02958	.10010	.96274	2.0189	260.13
Stddev	.040	.00033	.00207	.00259	.0026	2.78
%RSD	.04478	1.1192	2.0645	.26892	.12907	1.0691

#1	89.758	.02971	.10086	.96176	2.0196	262.57
#2	89.681	.02920	.09776	.96078	2.0211	257.10
#3	89.738	.02982	.10167	.96567	2.0160	260.70

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-13-D      Acquired: 10/28/2014 15:04:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>30.947</b>	<b>.24313</b>	<b>83.816</b>	<b>2.9034</b>	<b>.05127</b>	<b>107.59</b>
Stddev	.047	.00090	.092	.0071	.00097	.19
%RSD	.15082	.37210	.11002	.24346	1.9008	.17494

#1	30.944	.24320	83.865	2.9086	.05077	107.59
#2	30.902	.24219	83.873	2.9062	.05065	107.41
#3	30.995	.24400	83.710	2.8954	.05239	107.79

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.1021</b>	<b>2.0964</b>	<b>.00794</b>	<b>.01317</b>	<b>2.8767</b>	<b>.18460</b>
Stddev	.0172	.0282	.00237	.00241	.0167	.00316
%RSD	1.5626	1.3434	29.868	18.291	.58164	1.7095

#1	1.1048	2.0987	.00582	.01436	2.8956	.18531
#2	1.0837	2.0672	.00750	.01474	2.8704	.18114
#3	1.1178	2.1234	.01050	.01039	2.8640	.18733

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-13-D      Acquired: 10/28/2014 15:04:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.61054	4.0037	-.00389	.43755	4.3709
Stddev	.00229	.0131	.00258	.00161	.0627
%RSD	.37440	.32619	66.308	.36903	1.4336

#1	.61084	3.9889	-.00686	.43630	4.3772
#2	.61267	4.0134	-.00246	.43699	4.3054
#3	.60812	4.0089	-.00234	.43938	4.4302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2373.2	4740.4	67836.	12868.
Stddev	30.2	49.2	82.	35.
%RSD	1.2711	1.0383	.12049	.26974

#1	2367.1	4729.6	67742.	12839.
#2	2405.9	4794.2	67878.	12859.
#3	2346.5	4697.5	67888.	12906.

Sample Name: 180-37595-B-14-H      Acquired: 10/28/2014 15:09:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04583</b>	<b>117.00</b>	<b>.08758</b>	<b>.24930</b>	<b>.77750</b>	<b>.00618</b>
Stddev	.00025	.15	.00264	.00056	.00063	.00006
%RSD	.54153	.12593	3.0186	.22465	.08042	.97651

#1	.04609	116.83	.08490	.24989	.77712	.00624
#2	.04560	117.07	.09019	.24877	.77822	.00612
#3	.04580	117.10	.08763	.24923	.77715	.00619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>48.278</b>	<b>.02054</b>	<b>.08973</b>	<b>.77202</b>	<b>1.5038</b>	<b>229.01</b>
Stddev	.104	.00016	.00041	.00088	.0090	.51
%RSD	.21530	.75831	.45970	.11395	.59769	.22474

#1	48.204	.02056	.08971	.77303	1.4935	228.86
#2	48.397	.02037	.09016	.77147	1.5079	229.58
#3	48.234	.02068	.08934	.77155	1.5101	228.58

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-14-H      Acquired: 10/28/2014 15:09:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>30.300</b>	<b>.24016</b>	<b>70.838</b>	<b>2.8980</b>	<b>.01721</b>	<b>99.741</b>
Stddev	.016	.00059	.171	.0107	.00017	.109
%RSD	.05255	.24502	.24198	.36820	.96939	.10894

#1	30.286	.24083	70.651	2.8862	.01735	99.867
#2	30.317	.23991	70.989	2.9008	.01703	99.682
#3	30.296	.23974	70.873	2.9069	.01727	99.675

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.43801</b>	<b>1.4681</b>	<b>.00599</b>	<b>.00715</b>	<b>3.1683</b>	<b>.16415</b>
Stddev	.00024	.0057	.00083	.00143	.0028	.00046
%RSD	.05531	.38750	13.888	20.049	.08964	.27817

#1	.43827	1.4648	.00608	.00698	3.1679	.16413
#2	.43780	1.4649	.00511	.00581	3.1713	.16462
#3	.43794	1.4747	.00676	.00866	3.1656	.16371

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-14-H      Acquired: 10/28/2014 15:09:14      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.35540</b>	<b>3.8185</b>	<b>-.00597</b>	<b>.36568</b>	<b>2.5786</b>
Stddev	.00160	.0102	.00114	.00159	.0018
%RSD	.44940	.26652	19.075	.43570	.07053

#1	.35386	3.8092	-.00531	.36680	2.5798
#2	.35528	3.8169	-.00532	.36639	2.5795
#3	.35705	3.8293	-.00729	.36386	2.5765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2407.9</b>	<b>4784.8</b>	<b>68021.</b>	<b>12884.</b>
Stddev	3.7	11.6	156.	43.
%RSD	.15257	.24268	.22921	.33590

#1	2404.2	4774.1	67858.	12932.
#2	2407.8	4783.1	68037.	12849.
#3	2411.5	4797.2	68169.	12870.

Sample Name: CCV 1369837      Acquired: 10/28/2014 15:14:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0435</b>	<b>25.090</b>	<b>.52812</b>	<b>2.0954</b>	<b>2.0166</b>	<b>1.9789</b>
Stddev	.0006	.102	.00065	.0051	.0025	.0050
%RSD	.05265	.40649	.12338	.24183	.12501	.25163

#1	1.0441	24.989	.52737	2.1002	2.0137	1.9732
#2	1.0431	25.193	.52851	2.0960	2.0181	1.9823
#3	1.0432	25.088	.52848	2.0901	2.0180	1.9813

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.900</b>	<b>.51750</b>	<b>2.0967</b>	<b>2.0177</b>	<b>1.8741</b>	<b>25.700</b>
Stddev	.156	.00051	.0053	.0082	.0081	.094
%RSD	.31329	.09918	.25372	.40783	.43140	.36617

#1	49.759	.51806	2.1008	2.0226	1.8698	25.591
#2	50.068	.51740	2.0986	2.0223	1.8834	25.745
#3	49.871	.51704	2.0906	2.0082	1.8690	25.763

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 15:14:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.35</b>	<b>2.0253</b>	<b>49.163</b>	<b>1.8174</b>	<b>1.9664</b>	<b>129.30</b>
Stddev	.32	.0052	.208	.0102	.0017	.27
%RSD	.25460	.25625	.42401	.56264	.08561	.20658

#1	126.37	2.0206	48.926	1.8162	1.9666	129.20
#2	126.66	2.0309	49.319	1.8281	1.9679	129.60
#3	126.02	2.0244	49.245	1.8078	1.9646	129.09

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0645</b>	<b>.50409</b>	<b>.51369</b>	<b>.51787</b>	<b>2.0431</b>	<b>1.9060</b>
Stddev	.0051	.00430	.00137	.00119	.0117	.0030
%RSD	.24876	.85351	.26685	.22898	.57378	.15656

#1	2.0697	.49942	.51521	.51667	2.0324	1.9055
#2	2.0644	.50789	.51255	.51904	2.0556	1.9092
#3	2.0594	.50497	.51331	.51789	2.0411	1.9033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 15:14:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9099	1.8944	.96299	F 2.2276	1.9794
Stddev	.0052	.0081	.00126	.0038	.0051
%RSD	.27342	.42568	.13058	.17019	.25749

#1	1.9144	1.8971	.96209	2.2245	1.9811
#2	1.9111	1.9007	.96442	2.2264	1.9834
#3	1.9042	1.8853	.96245	2.2318	1.9737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value				2.0000	
Range				10.000%	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2376.7	4288.5	60422.	11438.
Stddev	3.3	3.6	68.	47.
%RSD	.13784	.08284	.11221	.41286

#1	2373.7	4285.5	60352.	11445.
#2	2376.3	4287.6	60487.	11388.
#3	2380.2	4292.4	60427.	11482.

Sample Name: CCB11      Acquired: 10/28/2014 15:19:16      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00308	.00142	.00087	.00023	.00010
Stddev	.00036	.01708	.00147	.00043	.00009	.00000
%RSD	234.46	554.87	104.00	49.541	38.129	2.5203

#1	-.00017	-.02248	.00301	.00111	.00021	.00010
#2	.00055	.00970	.00010	.00112	.00016	.00010
#3	.00009	.00354	.00114	.00037	.00033	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00808	.00001	.00007	.00030	.00120	.00327
Stddev	.00284	.00016	.00016	.00042	.00013	.00209
%RSD	35.193	1553.9	228.79	140.07	10.482	64.064

#1	-.01094	.00004	-.00001	.00008	.00108	.00092
#2	-.00803	.00015	.00026	.00003	.00119	.00495
#3	-.00526	-.00016	-.00004	.00078	.00133	.00392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB11      Acquired: 10/28/2014 15:19:16      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01772	-.00018	.01749	.00015	.00127	.01709
Stddev	.01292	.00057	.00757	.00001	.00037	.00451
%RSD	72.895	309.27	43.317	9.3634	29.449	26.378

#1	.00284	-.00061	.02577	.00014	.00161	.02146
#2	.02426	.00046	.01577	.00016	.00133	.01246
#3	.02606	-.00041	.01092	.00016	.00087	.01735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00017	.00053	.00016	.00428	-.00017
Stddev	.00017	.00035	.00147	.00118	.01034	.00037
%RSD	64.378	210.08	279.43	728.87	241.58	215.89

#1	.00039	.00010	.00146	.00052	.01620	-.00026
#2	.00034	-.00056	-.00117	-.00115	-.00107	-.00049
#3	.00007	-.00004	.00128	.00111	-.00229	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB11      Acquired: 10/28/2014 15:19:16      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00223	.00031	.00136	-.00061	-.00016
Stddev	.00258	.00011	.00057	.00055	.00009
%RSD	115.44	34.102	41.931	90.287	55.092

#1	.00252	.00033	.00138	-.00116	-.00020
#2	.00465	.00020	.00191	-.00006	-.00023
#3	-.00048	.00041	.00078	-.00061	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2934.3	4591.1	66245.	11396.
Stddev	3.3	2.8	64.	73.
%RSD	.11374	.06134	.09644	.63753

#1	2930.6	4590.2	66184.	11480.
#2	2935.0	4588.9	66311.	11349.
#3	2937.2	4594.3	66240.	11359.

Sample Name: 180-37595-A-15-H      Acquired: 10/28/2014 15:24:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04360</b>	<b>111.68</b>	<b>.08599</b>	<b>.24011</b>	<b>.69994</b>	<b>.00595</b>
Stddev	.00022	.19	.00356	.00092	.00129	.00003
%RSD	.49561	.17374	4.1384	.38141	.18479	.54890

#1	<b>.04374</b>	<b>111.70</b>	<b>.08986</b>	<b>.24054</b>	<b>.70052</b>	<b>.00593</b>
#2	<b>.04371</b>	<b>111.48</b>	<b>.08285</b>	<b>.24072</b>	<b>.69846</b>	<b>.00599</b>
#3	<b>.04335</b>	<b>111.86</b>	<b>.08527</b>	<b>.23905</b>	<b>.70085</b>	<b>.00594</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.803</b>	<b>.01606</b>	<b>.08440</b>	<b>.74495</b>	<b>1.3251</b>	<b>220.70</b>
Stddev	.020	.00009	.00045	.00163	.0048	1.47
%RSD	.05000	.57540	.53393	.21839	.36057	.66701

#1	<b>39.788</b>	<b>.01616</b>	<b>.08487</b>	<b>.74682</b>	<b>1.3206</b>	<b>220.31</b>
#2	<b>39.795</b>	<b>.01601</b>	<b>.08436</b>	<b>.74419</b>	<b>1.3301</b>	<b>222.32</b>
#3	<b>39.825</b>	<b>.01600</b>	<b>.08397</b>	<b>.74385</b>	<b>1.3246</b>	<b>219.46</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-15-H      Acquired: 10/28/2014 15:24:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>29.812</b>	<b>.23322</b>	<b>64.527</b>	<b>3.1076</b>	<b>.01032</b>	<b>96.755</b>
Stddev	.077	.00079	.094	.0094	.00035	.170
%RSD	.25849	.33786	.14575	.30238	3.3934	.17606

#1	29.868	.23353	64.540	3.0969	.01073	96.861
#2	29.724	.23233	64.614	3.1109	.01010	96.559
#3	29.843	.23381	64.427	3.1148	.01015	96.846

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29144</b>	<b>1.2393</b>	<b>.00236</b>	<b>.00806</b>	<b>3.2609</b>	<b>.15125</b>
Stddev	.00046	.0034	.00122	.00440	.0065	.00041
%RSD	.15888	.27381	51.474	54.586	.19929	.26951

#1	.29096	1.2424	.00195	.01292	3.2534	.15089
#2	.29188	1.2357	.00141	.00436	3.2644	.15169
#3	.29147	1.2398	.00373	.00689	3.2648	.15117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-15-H      Acquired: 10/28/2014 15:24:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33989	3.6233	-.00378	.34043	1.9106
Stddev	.00244	.0165	.00163	.00087	.0041
%RSD	.71872	.45544	43.118	.25433	.21556

#1	.33912	3.6208	-.00190	.34097	1.9151
#2	.33792	3.6408	-.00476	.33943	1.9097
#3	.34262	3.6081	-.00468	.34089	1.9070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2410.4	4752.0	67243.	12719.
Stddev	4.9	8.1	40.	19.
%RSD	.20183	.16972	.05979	.15210

#1	2405.0	4744.1	67208.	12724.
#2	2412.1	4751.8	67287.	12698.
#3	2414.3	4760.2	67235.	12736.



Sample Name: 180-37595-A-31-E      Acquired: 10/28/2014 15:29:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00122</b>	<b>46.927</b>	<b>.05202</b>	<b>.12957</b>	<b>.15421</b>	<b>.00283</b>
Stddev	.00017	.062	.00349	.00010	.00020	.00006
%RSD	14.216	.13136	6.7146	.07710	.13013	1.9877

#1	<b>-.00104</b>	<b>46.963</b>	<b>.05214</b>	<b>.12967</b>	<b>.15403</b>	<b>.00279</b>
#2	<b>-.00126</b>	<b>46.856</b>	<b>.05545</b>	<b>.12947</b>	<b>.15418</b>	<b>.00280</b>
#3	<b>-.00138</b>	<b>46.962</b>	<b>.04847</b>	<b>.12957</b>	<b>.15442</b>	<b>.00289</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>29.594</b>	<b>.00145</b>	<b>.03247</b>	<b>.17778</b>	<b>.08073</b>	<b>133.77</b>
Stddev	.050	.00003	.00017	.00192	.00043	.40
%RSD	.17054	1.7413	.53312	1.0778	.53167	.30111

#1	<b>29.626</b>	<b>.00147</b>	<b>.03267</b>	<b>.17634</b>	<b>.08115</b>	<b>134.18</b>
#2	<b>29.535</b>	<b>.00145</b>	<b>.03234</b>	<b>.17705</b>	<b>.08076</b>	<b>133.37</b>
#3	<b>29.619</b>	<b>.00142</b>	<b>.03240</b>	<b>.17995</b>	<b>.08029</b>	<b>133.74</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-31-E      Acquired: 10/28/2014 15:29:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>15.499</b>	<b>.08865</b>	<b>24.238</b>	<b>.88899</b>	<b>.01049</b>	<b>37.471</b>
Stddev	.048	.00079	.081	.00380	.00006	.016
%RSD	.30976	.89627	.33577	.42749	.55751	.04365

#1	15.481	.08831	24.330	.89338	.01043	37.482
#2	15.463	.08956	24.174	.88684	.01055	37.478
#3	15.553	.08809	24.210	.88676	.01050	37.452

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.16870</b>	<b>.06656</b>	<b>.00077</b>	<b>.00262</b>	<b>3.2148</b>	<b>.02533</b>
Stddev	.00007	.00089	.00006	.00223	.0123	.00053
%RSD	.04327	1.3359	7.1845	85.270	.38109	2.1072

#1	.16872	.06578	.00074	.00147	3.2159	.02485
#2	.16862	.06753	.00075	.00519	3.2265	.02591
#3	.16877	.06636	.00084	.00119	3.2021	.02523

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-31-E      Acquired: 10/28/2014 15:29:51      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15924	3.3402	-.00431	.17482	.29370
Stddev	.00283	.0127	.00046	.00149	.00036
%RSD	1.7791	.37984	10.693	.85424	.12319

#1	.15621	3.3546	-.00475	.17341	.29347
#2	.16182	3.3305	-.00383	.17638	.29412
#3	.15970	3.3356	-.00436	.17468	.29351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2569.7	4620.0	65797.	11992.
Stddev	3.9	2.5	419.	43.
%RSD	.15238	.05312	.63754	.35494

#1	2566.5	4619.2	65996.	11944.
#2	2574.0	4622.7	66081.	12023.
#3	2568.5	4618.0	65315.	12010.

Sample Name: MB 180-122819/1-A      Acquired: 10/28/2014 15:34:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00014	-.00082	-.00009	.00009	.00001
Stddev	.00045	.00788	.00080	.00024	.00007	.00002
%RSD	664.78	5548.6	98.136	273.36	72.365	315.04

#1	.00025	-.00278	-.00158	.00009	.00006	.00002
#2	-.00058	.00907	.00002	.00001	.00017	.00002
#3	.00013	-.00586	-.00089	-.00037	.00005	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01532	.00011	-.00017	.00065	.00306	.00613
Stddev	.00160	.00013	.00030	.00007	.00027	.00110
%RSD	10.472	117.95	181.10	10.138	8.8093	17.909

#1	-.01565	.00016	-.00004	.00061	.00333	.00722
#2	-.01357	-.00004	-.00051	.00073	.00304	.00502
#3	-.01673	.00022	.00005	.00062	.00280	.00615

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122819/1-A      Acquired: 10/28/2014 15:34:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00869</b>	<b>-.00059</b>	<b>.00138</b>	<b>.00009</b>	<b>-.00059</b>	<b>.01424</b>
Stddev	.00488	.00068	.01541	.00003	.00003	.00402
%RSD	56.223	116.42	1119.6	32.769	5.5207	28.201

#1	<b>-.00847</b>	<b>-.00008</b>	<b>-.00713</b>	<b>.00012</b>	<b>-.00057</b>	<b>.01606</b>
#2	<b>-.00391</b>	<b>-.00136</b>	<b>.01917</b>	<b>.00006</b>	<b>-.00063</b>	<b>.00964</b>
#3	<b>-.01367</b>	<b>-.00031</b>	<b>-.00790</b>	<b>.00009</b>	<b>-.00058</b>	<b>.01702</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00116</b>	<b>.00030</b>	<b>.00031</b>	<b>.00076</b>	<b>.01208</b>	<b>.02945</b>
Stddev	.00033	.00069	.00113	.00259	.00231	.00053
%RSD	28.426	228.85	369.79	341.07	19.088	1.8032

#1	<b>.00100</b>	<b>.00109</b>	<b>.00029</b>	<b>.00234</b>	<b>.01096</b>	<b>.03002</b>
#2	<b>.00154</b>	<b>-.00018</b>	<b>-.00082</b>	<b>.00218</b>	<b>.01473</b>	<b>.02897</b>
#3	<b>.00094</b>	<b>-.00000</b>	<b>.00145</b>	<b>-.00223</b>	<b>.01055</b>	<b>.02936</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122819/1-A      Acquired: 10/28/2014 15:34:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00226	.00039	-.00042	.00151	.00507
Stddev	.00135	.00015	.00033	.00170	.00013
%RSD	59.675	37.399	79.111	112.11	2.5847

#1	.00134	.00051	-.00042	.00285	.00492
#2	.00163	.00043	-.00076	-.00039	.00510
#3	.00381	.00023	-.00009	.00208	.00517

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2908.8	4528.1	65547.	11358.
Stddev	16.6	33.8	586.	61.
%RSD	.56952	.74611	.89464	.53453

#1	2897.5	4494.3	64871.	11305.
#2	2901.1	4528.1	65914.	11346.
#3	2927.8	4561.9	65856.	11424.

Sample Name: LCS 180-122819/2-A      Acquired: 10/28/2014 15:40:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04327	1.7133	.43231	.85842	1.7183	.04228
Stddev	.00029	.0174	.00383	.00293	.0022	.00016
%RSD	.65966	1.0181	.88554	.34145	.12735	.38212

#1	.04310	1.7030	.43504	.86152	1.7174	.04212
#2	.04360	1.7334	.43396	.85570	1.7207	.04244
#3	.04311	1.7035	.42793	.85804	1.7166	.04227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.205	.04271	.42742	.17491	.20788	.90502
Stddev	.200	.00012	.00028	.00147	.00184	.00539
%RSD	.45224	.28092	.06624	.83943	.88300	.59535

#1	44.030	.04260	.42774	.17486	.20723	.89902
#2	44.423	.04270	.42731	.17347	.20995	.90944
#3	44.162	.04283	.42721	.17641	.20646	.90660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122819/2-A      Acquired: 10/28/2014 15:40:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>45.025</b>	<b>.87394</b>	<b>43.395</b>	<b>.40022</b>	<b>.91378</b>	<b>46.678</b>
Stddev	.135	.00134	.191	.00434	.00156	.115
%RSD	.30003	.15303	.43984	1.0833	.17082	.24557

#1	44.887	.87548	43.251	.39868	.91265	46.632
#2	45.156	.87322	43.612	.40512	.91556	46.808
#3	45.032	.87312	43.323	.39688	.91312	46.593

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.42116</b>	<b>.40799</b>	<b>.46194</b>	<b>.42207</b>	<b>8.1540</b>	<b>1.7534</b>
Stddev	.00015	.00269	.00094	.00526	.0618	.0046
%RSD	.03602	.66038	.20260	1.2452	.75787	.26326

#1	.42102	.40590	.46098	.42371	8.1577	1.7503
#2	.42115	.41103	.46198	.42631	8.2139	1.7587
#3	.42132	.40703	.46285	.41619	8.0904	1.7513

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCS 180-122819/2-A      Acquired: 10/28/2014 15:40:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81109	.88729	F .39537	.46162	.42582
Stddev	.00655	.00983	.00024	.00734	.00108
%RSD	.80793	1.1079	.06131	1.5895	.25286

#1	.81747	.88084	.39517	.46229	.42552
#2	.81143	.89860	.39564	.45397	.42701
#3	.80437	.88242	.39531	.46860	.42492

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.60000		
Low Limit			.40000		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2499.9	4249.2	60731.	11233.
Stddev	1.1	6.6	52.	113.
%RSD	.04303	.15562	.08590	1.0093

#1	2499.4	4245.9	60672.	11287.
#2	2499.1	4245.0	60752.	11103.
#3	2501.1	4256.9	60770.	11310.

Sample Name: 180-37595-A-16-I      Acquired: 10/28/2014 15:44:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03127</b>	<b>114.96</b>	<b>.07826</b>	<b>.25017</b>	<b>.66768</b>	<b>.00609</b>
Stddev	.00008	.11	.00315	.00177	.00045	.00001
%RSD	.24378	.09764	4.0192	.70648	.06692	.20634

#1	<b>.03136</b>	<b>115.01</b>	<b>.07529</b>	<b>.24815</b>	<b>.66819</b>	<b>.00610</b>
#2	<b>.03123</b>	<b>115.03</b>	<b>.08156</b>	<b>.25088</b>	<b>.66735</b>	<b>.00609</b>
#3	<b>.03123</b>	<b>114.83</b>	<b>.07793</b>	<b>.25147</b>	<b>.66751</b>	<b>.00608</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.129</b>	<b>.01231</b>	<b>.08660</b>	<b>.66640</b>	<b>1.1605</b>	<b>230.20</b>
Stddev	.076	.00007	.00022	.00515	.0042	1.05
%RSD	.19528	.59826	.24868	.77305	.35770	.45628

#1	<b>39.047</b>	<b>.01223</b>	<b>.08673</b>	<b>.66693</b>	<b>1.1559</b>	<b>230.32</b>
#2	<b>39.198</b>	<b>.01233</b>	<b>.08672</b>	<b>.67128</b>	<b>1.1640</b>	<b>229.10</b>
#3	<b>39.142</b>	<b>.01238</b>	<b>.08635</b>	<b>.66101</b>	<b>1.1616</b>	<b>231.19</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-16-I      Acquired: 10/28/2014 15:44:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>30.757</b>	<b>.24280</b>	<b>68.159</b>	<b>3.2170</b>	<b>.00962</b>	<b>104.97</b>
Stddev	.046	.00046	.104	.0116	.00011	.19
%RSD	.15074	.19035	.15208	.35986	1.1060	.18244

#1	30.704	.24275	68.134	3.2213	.00964	104.75
#2	30.785	.24237	68.273	3.2258	.00951	105.10
#3	30.783	.24329	68.070	3.2039	.00972	105.06

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.26942</b>	<b>1.1137</b>	<b>.00403</b>	<b>.00909</b>	<b>2.9784</b>	<b>.13797</b>
Stddev	.00122	.0052	.00142	.00170	.0084	.00029
%RSD	.45165	.46933	35.308	18.741	.28231	.21363

#1	.26805	1.1082	.00566	.00716	2.9708	.13769
#2	.27038	1.1142	.00334	.00970	2.9769	.13828
#3	.26984	1.1186	.00307	.01040	2.9875	.13794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-16-I      Acquired: 10/28/2014 15:44:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.32565	3.6059	-.00506	.33156	1.7298
Stddev	.00391	.0065	.00194	.00080	.0094
%RSD	1.1996	.18094	38.442	.24222	.54148

#1	.32818	3.5990	-.00332	.33196	1.7192
#2	.32763	3.6067	-.00716	.33064	1.7335
#3	.32115	3.6120	-.00470	.33209	1.7368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2407.0	4776.6	67545.	12647.
Stddev	8.1	12.6	291.	59.
%RSD	.33850	.26327	.43093	.46483

#1	2416.4	4791.2	67582.	12680.
#2	2401.7	4770.0	67237.	12579.
#3	2403.0	4768.8	67815.	12682.

Sample Name: 180-37595-B-17-G      Acquired: 10/28/2014 15:50:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04382	118.29	.08695	.25539	.72131	.00636
Stddev	.00008	.05	.00186	.00084	.00094	.00008
%RSD	.17888	.03944	2.1361	.33063	.13032	1.2130

#1	.04391	118.25	.08614	.25602	.72114	.00641
#2	.04379	118.29	.08564	.25443	.72232	.00627
#3	.04376	118.34	.08908	.25571	.72047	.00641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.219	.01560	.09171	.77746	1.3390	233.73
Stddev	.050	.00012	.00037	.00050	.0098	1.54
%RSD	.12088	.77956	.40838	.06470	.73105	.65756

#1	41.201	.01555	.09153	.77714	1.3443	231.98
#2	41.182	.01552	.09214	.77804	1.3277	234.34
#3	41.276	.01574	.09145	.77719	1.3449	234.87

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-17-G      Acquired: 10/28/2014 15:50:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>31.691</b>	<b>.25207</b>	<b>69.002</b>	<b>3.3210</b>	<b>.01003</b>	<b>105.73</b>
Stddev	.068	.00183	.151	.0209	.00038	.12
%RSD	.21416	.72454	.21828	.62967	3.7712	.11160

#1	<b>31.613</b>	<b>.25050</b>	<b>69.090</b>	<b>3.3019</b>	<b>.00981</b>	<b>105.59</b>
#2	<b>31.728</b>	<b>.25407</b>	<b>68.828</b>	<b>3.3178</b>	<b>.01047</b>	<b>105.79</b>
#3	<b>31.733</b>	<b>.25163</b>	<b>69.088</b>	<b>3.3433</b>	<b>.00981</b>	<b>105.80</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29581</b>	<b>1.2816</b>	<b>.00564</b>	<b>.00888</b>	<b>2.7783</b>	<b>.15069</b>
Stddev	.00162	.0062	.00094	.00254	.0058	.00093
%RSD	.54657	.48101	16.620	28.560	.20839	.61746

#1	<b>.29521</b>	<b>1.2840</b>	<b>.00672</b>	<b>.00876</b>	<b>2.7837</b>	<b>.15028</b>
#2	<b>.29764</b>	<b>1.2862</b>	<b>.00513</b>	<b>.00641</b>	<b>2.7791</b>	<b>.15004</b>
#3	<b>.29457</b>	<b>1.2746</b>	<b>.00507</b>	<b>.01148</b>	<b>2.7722</b>	<b>.15176</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-17-G      Acquired: 10/28/2014 15:50:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.35405</b>	<b>3.6860</b>	<b>-.00612</b>	<b>.35854</b>	<b>1.9065</b>
Stddev	.00386	.0103	.00076	.00260	.0055
%RSD	1.0899	.27896	12.402	.72567	.28746

#1	.35585	3.6853	-.00600	.36064	1.9121
#2	.35667	3.6761	-.00542	.35563	1.9063
#3	.34962	3.6966	-.00693	.35935	1.9011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2391.4</b>	<b>4768.3</b>	<b>67583.</b>	<b>12858.</b>
Stddev	4.2	6.9	104.	47.
%RSD	.17686	.14456	.15341	.36589

#1	2390.3	4764.3	67594.	12853.
#2	2387.8	4776.3	67474.	12907.
#3	2396.1	4764.4	67680.	12813.

Sample Name: 180-37595-A-18-D      Acquired: 10/28/2014 15:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04100	108.12	.08085	.23211	.65684	.00587
Stddev	.00055	.41	.00235	.00071	.00139	.00008
%RSD	1.3434	.37866	2.9008	.30455	.21128	1.2896

#1	.04057	107.92	.08349	.23238	.65813	.00579
#2	.04082	108.59	.08006	.23265	.65702	.00592
#3	.04162	107.84	.07900	.23131	.65537	.00592

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.951	.01495	.08496	.70559	1.2921	220.96
Stddev	.217	.00009	.00020	.01666	.0151	1.02
%RSD	.57276	.60098	.24011	2.3606	1.1680	.46206

#1	37.755	.01502	.08513	.68659	1.2810	221.92
#2	38.185	.01485	.08474	.71249	1.3092	221.08
#3	37.914	.01497	.08502	.71768	1.2860	219.89

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-18-D      Acquired: 10/28/2014 15:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>28.776</b>	<b>.23051</b>	<b>63.695</b>	<b>3.0220</b>	<b>.01064</b>	<b>93.476</b>
Stddev	.103	.00087	.570	.0301	.00031	.235
%RSD	.35724	.37735	.89476	.99478	2.9000	.25176

#1	<b>28.798</b>	<b>.23151</b>	<b>63.234</b>	<b>2.9905</b>	<b>.01099</b>	<b>93.688</b>
#2	<b>28.867</b>	<b>.22996</b>	<b>64.332</b>	<b>3.0503</b>	<b>.01052</b>	<b>93.518</b>
#3	<b>28.665</b>	<b>.23006</b>	<b>63.519</b>	<b>3.0251</b>	<b>.01041</b>	<b>93.223</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.27076</b>	<b>1.2092</b>	<b>.00255</b>	<b>.00913</b>	<b>2.3001</b>	<b>.14174</b>
Stddev	.00034	.0083	.00218	.00113	.0020	.00067
%RSD	.12648	.68894	85.452	12.347	.08706	.47402

#1	<b>.27038</b>	<b>1.2014</b>	<b>.00339</b>	<b>.01031</b>	<b>2.2978</b>	<b>.14237</b>
#2	<b>.27104</b>	<b>1.2082</b>	<b>.00008</b>	<b>.00807</b>	<b>2.3015</b>	<b>.14103</b>
#3	<b>.27087</b>	<b>1.2180</b>	<b>.00419</b>	<b>.00902</b>	<b>2.3010</b>	<b>.14181</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37595-A-18-D      Acquired: 10/28/2014 15:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.32213</b>	<b>3.4008</b>	<b>-.00390</b>	<b>.33130</b>	<b>1.8662</b>
Stddev	.00451	.0405	.00348	.00578	.0036
%RSD	1.3987	1.1902	89.257	1.7444	.19385

#1	<b>.31737</b>	<b>3.3616</b>	<b>-.00003</b>	<b>.32499</b>	<b>1.8621</b>
#2	<b>.32633</b>	<b>3.4424</b>	<b>-.00677</b>	<b>.33258</b>	<b>1.8678</b>
#3	<b>.32269</b>	<b>3.3983</b>	<b>-.00490</b>	<b>.33634</b>	<b>1.8688</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2423.9</b>	<b>4773.4</b>	<b>68543.</b>	<b>12783.</b>
Stddev	3.2	4.8	1171.	124.
%RSD	.13209	.10152	1.7076	.97088

#1	<b>2423.1</b>	<b>4772.3</b>	<b>69886.</b>	<b>12880.</b>
#2	<b>2427.4</b>	<b>4778.7</b>	<b>68003.</b>	<b>12643.</b>
#3	<b>2421.2</b>	<b>4769.2</b>	<b>67740.</b>	<b>12826.</b>

Sample Name: 180-37595-B-19-C      Acquired: 10/28/2014 16:00:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04519	113.11	.08057	.24024	.69000	.00609
Stddev	.00023	.24	.00202	.00262	.00053	.00003
%RSD	.51074	.21377	2.5033	1.0922	.07740	.45145

#1	.04510	113.36	.08261	.24016	.69053	.00612
#2	.04545	112.87	.07857	.23765	.69000	.00606
#3	.04502	113.11	.08053	.24290	.68946	.00608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.478	.01515	.08568	.73567	1.3277	221.51
Stddev	.081	.00018	.00137	.00487	.0041	1.49
%RSD	.20529	1.1599	1.5936	.66131	.31206	.67058

#1	39.557	.01517	.08544	.74129	1.3275	219.98
#2	39.395	.01496	.08446	.73289	1.3236	221.59
#3	39.483	.01531	.08715	.73283	1.3319	222.95

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-19-C      Acquired: 10/28/2014 16:00:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>29.897</b>	<b>.23910</b>	<b>65.053</b>	<b>3.0909</b>	<b>.01067</b>	<b>95.092</b>
Stddev	.047	.00060	.238	.0135	.00004	.094
%RSD	.15662	.25170	.36558	.43774	.36560	.09890

#1	<b>29.870</b>	<b>.23850</b>	<b>65.328</b>	<b>3.0865</b>	<b>.01066</b>	<b>95.117</b>
#2	<b>29.871</b>	<b>.23970</b>	<b>64.930</b>	<b>3.0801</b>	<b>.01063</b>	<b>94.987</b>
#3	<b>29.951</b>	<b>.23911</b>	<b>64.903</b>	<b>3.1061</b>	<b>.01071</b>	<b>95.170</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.27014</b>	<b>1.2345</b>	<b>.00295</b>	<b>.01007</b>	<b>2.7023</b>	<b>.14479</b>
Stddev	.00391	.0097	.00036	.00313	.0123	.00124
%RSD	1.4487	.78637	12.127	31.110	.45432	.85812

#1	<b>.27085</b>	<b>1.2301</b>	<b>.00270</b>	<b>.00699</b>	<b>2.7056</b>	<b>.14484</b>
#2	<b>.26592</b>	<b>1.2277</b>	<b>.00278</b>	<b>.00996</b>	<b>2.6887</b>	<b>.14352</b>
#3	<b>.27365</b>	<b>1.2456</b>	<b>.00336</b>	<b>.01325</b>	<b>2.7126</b>	<b>.14600</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37595-B-19-C      Acquired: 10/28/2014 16:00:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33014	3.5426	-.00469	.34077	1.8919
Stddev	.00549	.0211	.00216	.00345	.0142
%RSD	1.6619	.59597	46.029	1.0131	.75137

#1	.33648	3.5639	-.00354	.34460	1.8925
#2	.32708	3.5217	-.00718	.33982	1.8774
#3	.32687	3.5421	-.00335	.33789	1.9058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2434.0	4796.9	67968.	12743.
Stddev	22.3	35.1	283.	35.
%RSD	.91510	.73070	.41659	.27460

#1	2435.3	4792.1	67641.	12711.
#2	2455.6	4834.1	68138.	12781.
#3	2411.1	4764.5	68125.	12738.

Sample Name: 180-37595-A-20-B      Acquired: 10/28/2014 16:06:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03571	106.05	.06501	.21291	.60961	.00561
Stddev	.00011	.07	.00023	.00056	.00243	.00009
%RSD	.29734	.06440	.35385	.26106	.39837	1.5277

#1	.03569	105.97	.06519	.21352	.61146	.00571
#2	.03562	106.07	.06510	.21244	.61051	.00555
#3	.03583	106.10	.06475	.21277	.60686	.00556

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.259	.01408	.07790	.64064	1.2550	203.44
Stddev	.108	.00009	.00011	.00244	.0023	2.11
%RSD	.29851	.67434	.13961	.38123	.18102	1.0363

#1	36.182	.01417	.07803	.63847	1.2568	205.39
#2	36.213	.01407	.07783	.64017	1.2524	201.20
#3	36.383	.01398	.07785	.64329	1.2556	203.73

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-20-B      Acquired: 10/28/2014 16:06:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>28.031</b>	<b>.21985</b>	<b>60.549</b>	<b>2.5288</b>	<b>.01493</b>	<b>85.958</b>
Stddev	.043	.00136	.334	.0170	.00012	.160
%RSD	.15350	.61808	.55186	.67048	.83450	.18644

#1	27.982	.21890	60.564	2.5112	.01504	86.004
#2	28.061	.22141	60.207	2.5301	.01496	86.090
#3	28.051	.21924	60.875	2.5450	.01480	85.779

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.24831</b>	<b>1.1420</b>	<b>.00615</b>	<b>.00590</b>	<b>2.9990</b>	<b>.13325</b>
Stddev	.00038	.0040	.00205	.00269	.0184	.00065
%RSD	.15383	.35481	33.324	45.573	.61489	.48491

#1	.24796	1.1378	.00621	.00604	2.9937	.13284
#2	.24872	1.1425	.00818	.00851	2.9839	.13291
#3	.24824	1.1458	.00408	.00314	3.0196	.13399

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-20-B      Acquired: 10/28/2014 16:06:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.30014	3.3832	-.00446	.31828	1.9477
Stddev	.00312	.0146	.00062	.00201	.0022
%RSD	1.0387	.43160	13.783	.63194	.11024

#1	.29916	3.3732	-.00472	.31597	1.9502
#2	.30363	3.3765	-.00491	.31966	1.9461
#3	.29763	3.3999	-.00376	.31921	1.9468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2429.3	4728.6	67152.	12708.
Stddev	3.8	16.1	119.	53.
%RSD	.15761	.34130	.17779	.41426

#1	2427.3	4714.2	67271.	12764.
#2	2426.8	4725.6	67032.	12703.
#3	2433.7	4746.1	67152.	12659.



Sample Name: 180-37595-A-21-E      Acquired: 10/28/2014 16:11:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04527</b>	<b>123.03</b>	<b>.09489</b>	<b>.26444</b>	<b>.76580</b>	<b>.00657</b>
Stddev	.00051	1.95	.00226	.00047	.01091	.00017
%RSD	1.1304	1.5872	2.3793	.17672	1.4249	2.5163

#1	.04554	123.01	.09688	.26394	.76824	.00658
#2	.04559	124.99	.09535	.26453	.77529	.00672
#3	.04468	121.09	.09243	.26487	.75388	.00639

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>43.853</b>	<b>.01786</b>	<b>.09524</b>	<b>.79730</b>	<b>1.4333</b>	<b>241.29</b>
Stddev	.630	.00013	.00015	.00353	.0195	2.77
%RSD	1.4360	.75093	.15295	.44244	1.3593	1.1493

#1	43.932	.01800	.09528	.80095	1.4300	240.45
#2	44.439	.01787	.09507	.79391	1.4543	244.38
#3	43.187	.01773	.09536	.79704	1.4158	239.03

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-21-E      Acquired: 10/28/2014 16:11:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>32.207</b>	<b>.25730</b>	<b>71.299</b>	<b>3.2955</b>	<b>.01179</b>	<b>102.21</b>
Stddev	.408	.00263	.999	.0474	.00027	1.26
%RSD	1.2655	1.0229	1.4008	1.4383	2.2696	1.2284

#1	32.279	.25809	71.463	3.2986	.01156	102.45
#2	32.573	.25944	72.205	3.3412	.01208	103.34
#3	31.768	.25436	70.228	3.2466	.01172	100.86

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.34917</b>	<b>1.3794</b>	<b>.00473</b>	<b>.00778</b>	<b>3.3526</b>	<b>.16472</b>
Stddev	.00127	.0048	.00154	.00264	.0559	.00047
%RSD	.36336	.34778	32.552	33.876	1.6660	.28335

#1	.34863	1.3745	.00324	.00476	3.3395	.16456
#2	.34826	1.3841	.00464	.00901	3.4139	.16435
#3	.35062	1.3796	.00631	.00958	3.3046	.16524

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-21-E      Acquired: 10/28/2014 16:11:13      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.35626</b>	<b>4.0013</b>	<b>-.00606</b>	<b>.36957</b>	<b>2.1482</b>
Stddev	.01014	.0577	.00057	.00072	.0048
%RSD	2.8472	1.4431	9.4514	.19577	.22269

#1	.36178	3.9943	-.00546	.36967	2.1431
#2	.36244	4.0622	-.00611	.37024	2.1490
#3	.34455	3.9474	-.00660	.36881	2.1526

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2395.0</b>	<b>4799.5</b>	<b>68245.</b>	<b>12943.</b>
Stddev	2.8	2.8	139.	174.
%RSD	.11875	.05843	.20374	1.3412

#1	2398.1	4800.4	68090.	12927.
#2	2392.6	4796.3	68283.	12779.
#3	2394.2	4801.7	68360.	13125.

Sample Name: CCV 1369837      Acquired: 10/28/2014 16:16:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0402</b>	<b>24.960</b>	<b>.52219</b>	<b>2.0744</b>	<b>2.0018</b>	<b>1.9655</b>
Stddev	.0013	.052	.00109	.0044	.0050	.0038
%RSD	.12831	.20826	.20796	.21154	.24717	.19494

#1	1.0396	25.012	.52336	2.0779	2.0074	1.9699
#2	1.0392	24.960	.52122	2.0758	1.9997	1.9639
#3	1.0417	24.908	.52200	2.0695	1.9982	1.9628

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.776</b>	<b>.51435</b>	<b>2.0894</b>	<b>2.0165</b>	<b>1.8761</b>	<b>25.523</b>
Stddev	.079	.00070	.0029	.0030	.0044	.088
%RSD	.15920	.13600	.14058	.15011	.23330	.34354

#1	49.863	.51505	2.0894	2.0160	1.8802	25.620
#2	49.757	.51433	2.0923	2.0197	1.8766	25.451
#3	49.708	.51366	2.0864	2.0137	1.8715	25.497

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 16:16:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.03</b>	<b>2.0173</b>	<b>48.918</b>	<b>1.8322</b>	<b>1.9446</b>	<b>128.91</b>
Stddev	.39	.0082	.104	.0054	.0018	.40
%RSD	.31237	.40445	.21293	.29699	.09236	.30862

#1	126.46	2.0263	49.035	1.8332	1.9441	129.37
#2	125.69	2.0104	48.883	1.8371	1.9466	128.69
#3	125.93	2.0152	48.835	1.8264	1.9431	128.67

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0506</b>	<b>.50098</b>	<b>.51129</b>	<b>.50597</b>	<b>2.0421</b>	<b>1.8806</b>
Stddev	.0020	.00161	.00213	.00548	.0050	.0016
%RSD	.09768	.32043	.41579	1.0827	.24486	.08346

#1	2.0515	.50022	.51309	.51082	2.0452	1.8811
#2	2.0520	.50283	.51183	.50706	2.0363	1.8818
#3	2.0483	.49990	.50894	.50002	2.0446	1.8788

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 16:16:36      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8957	1.9021	.94801	2.1884	1.9693
Stddev	.0055	.0054	.00528	.0142	.0005
%RSD	.29147	.28562	.55727	.64785	.02551

#1	1.9019	1.9073	.94417	2.1967	1.9687
#2	1.8914	1.9025	.95403	2.1720	1.9697
#3	1.8938	1.8964	.94583	2.1964	1.9695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2386.1	4309.1	60634.	11370.
Stddev	2.1	2.1	71.	17.
%RSD	.08792	.04803	.11669	.15330

#1	2386.7	4307.8	60651.	11361.
#2	2383.8	4308.0	60694.	11360.
#3	2387.9	4311.4	60556.	11390.

Sample Name: CCB12      Acquired: 10/28/2014 16:21:24      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00296	.00132	.00088	.00002	.00013
Stddev	.00028	.00737	.00106	.00033	.00013	.00008
%RSD	202.30	249.32	80.214	37.281	641.02	60.558
#1	.00000	-.00417	.00012	.00127	.00003	.00022
#2	.00046	.01055	.00170	.00070	.00014	.00008
#3	-.00005	.00248	.00213	.00069	-.00011	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00734	-.00005	-.00003	.00034	.00113	.00383
Stddev	.00177	.00007	.00009	.00009	.00050	.00117
%RSD	24.083	144.36	285.83	27.449	44.229	30.702
#1	-.00695	-.00009	-.00013	.00032	.00142	.00442
#2	-.00580	-.00009	-.00003	.00044	.00142	.00247
#3	-.00927	.00003	.00006	.00025	.00056	.00459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB12      Acquired: 10/28/2014 16:21:24      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03759	-.00086	.01011	.00010	.00132	.02075
Stddev	.02165	.00060	.00775	.00001	.00028	.00676
%RSD	57.589	70.262	76.738	11.378	20.999	32.583

#1	.01375	-.00107	.00124	.00010	.00162	.01298
#2	.04300	-.00132	.01560	.00012	.00108	.02404
#3	.05602	-.00018	.01348	.00009	.00126	.02525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00066	.00004	.00059	.00323	.00021
Stddev	.00018	.00098	.00061	.00186	.00249	.00008
%RSD	49.538	149.61	1544.6	313.05	77.013	39.246

#1	.00017	.00144	.00049	-.00153	.00078	.00025
#2	.00052	.00098	.00028	.00140	.00315	.00026
#3	.00038	-.00045	-.00066	.00191	.00575	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: CCB12      Acquired: 10/28/2014 16:21:24      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00339	.00020	.00057	-.00016	-.00007
Stddev	.00157	.00005	.00122	.00151	.00007
%RSD	46.315	26.692	211.63	939.54	97.266

#1	.00328	.00018	-.00076	-.00161	-.00015
#2	.00502	.00026	.00162	.00141	-.00005
#3	.00188	.00016	.00086	-.00029	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.3	4560.9	65850.	11510.
Stddev	14.2	20.4	204.	26.
%RSD	.48968	.44732	.31002	.23001

#1	2914.6	4576.9	66040.	11480.
#2	2916.5	4567.9	65875.	11518.
#3	2890.9	4537.9	65634.	11532.

Sample Name: 180-37595-B-22-C      Acquired: 10/28/2014 16:26:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04296	108.51	.08803	.23647	.71009	.00585
Stddev	.00017	.51	.00325	.00093	.00262	.00003
%RSD	.39197	.46932	3.6876	.39216	.36840	.51974

#1	.04279	107.98	.09170	.23717	.70774	.00582
#2	.04296	108.56	.08686	.23542	.70963	.00588
#3	.04312	109.00	.08554	.23682	.71291	.00586

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	43.003	.01534	.08616	.74124	1.2858	224.89
Stddev	.185	.00007	.00049	.00315	.0061	1.29
%RSD	.42960	.43040	.56835	.42526	.47789	.57399

#1	42.793	.01528	.08657	.74200	1.2803	224.57
#2	43.077	.01541	.08630	.74395	1.2924	223.78
#3	43.139	.01532	.08562	.73778	1.2847	226.31

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-22-C      Acquired: 10/28/2014 16:26:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>29.339</b>	<b>.23253</b>	<b>65.136</b>	<b>3.3527</b>	<b>.01076</b>	<b>103.49</b>
Stddev	.136	.00234	.343	.0069	.00033	.51
%RSD	.46432	1.0051	.52610	.20676	3.0716	.49412

#1	29.256	.23104	64.769	3.3448	.01112	103.14
#2	29.265	.23133	65.448	3.3556	.01048	103.26
#3	29.497	.23523	65.193	3.3578	.01067	104.08

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28456</b>	<b>1.2120</b>	<b>.00333</b>	<b>.00814</b>	<b>3.1176</b>	<b>.15122</b>
Stddev	.00076	.0039	.00162	.00206	.0262	.00086
%RSD	.26627	.31800	48.533	25.290	.84041	.56646

#1	.28543	1.2162	.00342	.00839	3.1059	.15128
#2	.28417	1.2087	.00490	.01006	3.0992	.15034
#3	.28408	1.2110	.00167	.00596	3.1476	.15205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-22-C      Acquired: 10/28/2014 16:26:36      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.34123</b>	<b>3.5581</b>	<b>-.00552</b>	<b>.32760</b>	<b>1.8474</b>
Stddev	.00280	.0097	.00123	.00292	.0053
%RSD	.82172	.27214	22.276	.88988	.28958

#1	.34445	3.5528	-.00632	.33094	1.8528
#2	.33999	3.5693	-.00613	.32558	1.8473
#3	.33927	3.5523	-.00410	.32627	1.8421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2400.9</b>	<b>4756.3</b>	<b>67403.</b>	<b>12631.</b>
Stddev	11.7	19.8	155.	62.
%RSD	.48911	.41581	.23027	.48792

#1	2387.6	4734.4	67321.	12678.
#2	2409.9	4772.8	67306.	12561.
#3	2405.1	4761.6	67582.	12653.

Sample Name: 180-37595-A-23-D      Acquired: 10/28/2014 16:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04557	110.28	.09059	.24316	.73800	.00598
Stddev	.00013	.18	.00060	.00036	.00082	.00003
%RSD	.27903	.16408	.65933	.14753	.11077	.55048

#1	.04570	110.48	.09127	.24349	.73714	.00602
#2	.04556	110.13	.09019	.24278	.73810	.00598
#3	.04545	110.22	.09030	.24321	.73877	.00595

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.708	.01493	.08813	.76366	1.2943	222.86
Stddev	.211	.00022	.00026	.00085	.0094	1.91
%RSD	.45194	1.4752	.30064	.11151	.72920	.85580

#1	46.950	.01496	.08839	.76275	1.3049	224.98
#2	46.564	.01470	.08786	.76378	1.2867	222.30
#3	46.609	.01514	.08814	.76444	1.2915	221.29

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-23-D      Acquired: 10/28/2014 16:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>30.359</b>	<b>.23528</b>	<b>65.927</b>	<b>3.6103</b>	<b>.00973</b>	<b>109.73</b>
Stddev	.036	.00160	.187	.0291	.00021	.13
%RSD	.11792	.68049	.28336	.80749	2.1853	.12075

#1	30.384	.23354	66.089	3.6391	.00997	109.85
#2	30.318	.23562	65.723	3.5808	.00963	109.75
#3	30.374	.23669	65.970	3.6110	.00957	109.59

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.27610</b>	<b>1.2762</b>	<b>.00326</b>	<b>.00926</b>	<b>3.3023</b>	<b>.14675</b>
Stddev	.00102	.0006	.00149	.00267	.0077	.00092
%RSD	.36928	.05027	45.578	28.877	.23434	.62532

#1	.27497	1.2756	.00295	.01009	3.3093	.14769
#2	.27696	1.2763	.00488	.01142	3.3038	.14585
#3	.27637	1.2768	.00195	.00627	3.2940	.14672

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-23-D      Acquired: 10/28/2014 16:32:00      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.36285</b>	<b>3.5973</b>	<b>-.00574</b>	<b>.34022</b>	<b>1.7973</b>
Stddev	.00111	.0302	.00079	.00252	.0031
%RSD	.30513	.83848	13.709	.74206	.17014

#1	.36389	3.6308	-.00626	.33935	1.7965
#2	.36298	3.5722	-.00613	.34306	1.7948
#3	.36169	3.5889	-.00484	.33824	1.8007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2388.5</b>	<b>4743.0</b>	<b>66878.</b>	<b>12675.</b>
Stddev	4.4	8.3	142.	123.
%RSD	.18252	.17453	.21215	.97104

#1	2383.7	4737.2	66725.	12535.
#2	2389.5	4752.5	66902.	12765.
#3	2392.2	4739.4	67005.	12725.

Sample Name: 180-37595-A-24-D      Acquired: 10/28/2014 16:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03720</b>	<b>106.89</b>	<b>.08124</b>	<b>.23125</b>	<b>.69049</b>	<b>.00575</b>
Stddev	.00013	.28	.00115	.00075	.00224	.00003
%RSD	.34004	.26566	1.4113	.32340	.32468	.44959

#1	<b>.03706</b>	<b>106.88</b>	<b>.08255</b>	<b>.23198</b>	<b>.69209</b>	<b>.00576</b>
#2	<b>.03729</b>	<b>106.61</b>	<b>.08068</b>	<b>.23049</b>	<b>.68793</b>	<b>.00578</b>
#3	<b>.03726</b>	<b>107.17</b>	<b>.08048</b>	<b>.23129</b>	<b>.69146</b>	<b>.00573</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>43.717</b>	<b>.01266</b>	<b>.08414</b>	<b>.69263</b>	<b>1.1326</b>	<b>214.09</b>
Stddev	.158	.00005	.00054	.00204	.0043	.63
%RSD	.36073	.41541	.64775	.29481	.37910	.29297

#1	<b>43.585</b>	<b>.01271</b>	<b>.08477</b>	<b>.69273</b>	<b>1.1277</b>	<b>213.56</b>
#2	<b>43.673</b>	<b>.01261</b>	<b>.08383</b>	<b>.69461</b>	<b>1.1351</b>	<b>213.93</b>
#3	<b>43.891</b>	<b>.01267</b>	<b>.08381</b>	<b>.69053</b>	<b>1.1351</b>	<b>214.78</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-24-D      Acquired: 10/28/2014 16:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>28.757</b>	<b>.22631</b>	<b>62.131</b>	<b>3.5165</b>	<b>.00863</b>	<b>94.672</b>
Stddev	.110	.00078	.190	.0059	.00013	.327
%RSD	.38183	.34558	.30536	.16735	1.5028	.34539

#1	28.818	.22714	61.919	3.5100	.00849	94.834
#2	28.630	.22558	62.190	3.5215	.00865	94.295
#3	28.822	.22621	62.284	3.5180	.00875	94.886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.25540</b>	<b>1.1606</b>	<b>.00427</b>	<b>.00644</b>	<b>3.0307</b>	<b>.13712</b>
Stddev	.00059	.0061	.00228	.00308	.0244	.00106
%RSD	.22936	.52495	53.438	47.725	.80416	.76997

#1	.25607	1.1667	.00629	.00920	3.0267	.13606
#2	.25514	1.1546	.00180	.00313	3.0086	.13817
#3	.25500	1.1604	.00472	.00701	3.0568	.13713

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-24-D      Acquired: 10/28/2014 16:37:23      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.33575</b>	<b>3.4987</b>	<b>-.00486</b>	<b>.32803</b>	<b>1.6499</b>
Stddev	.00175	.0135	.00053	.00221	.0048
%RSD	.52054	.38688	10.810	.67441	.28839

#1	<b>.33428</b>	<b>3.4834</b>	<b>-.00427</b>	<b>.33007</b>	<b>1.6546</b>
#2	<b>.33768</b>	<b>3.5035</b>	<b>-.00503</b>	<b>.32835</b>	<b>1.6502</b>
#3	<b>.33529</b>	<b>3.5092</b>	<b>-.00528</b>	<b>.32568</b>	<b>1.6451</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2417.7</b>	<b>4752.8</b>	<b>67382.</b>	<b>12716.</b>
Stddev	5.7	8.0	260.	39.
%RSD	.23604	.16935	.38550	.30813

#1	<b>2411.9</b>	<b>4744.7</b>	<b>67600.</b>	<b>12753.</b>
#2	<b>2423.3</b>	<b>4760.8</b>	<b>67095.</b>	<b>12720.</b>
#3	<b>2418.0</b>	<b>4752.8</b>	<b>67451.</b>	<b>12675.</b>

Sample Name: 180-37595-A-25-O      Acquired: 10/28/2014 16:42:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03576	132.90	.07958	.28811	.76458	.00603
Stddev	.00016	.23	.00110	.00080	.00272	.00008
%RSD	.45397	.17050	1.3768	.27909	.35619	1.2859

#1	.03589	132.82	.08011	.28822	.76733	.00598
#2	.03580	132.73	.08032	.28886	.76453	.00600
#3	.03557	133.16	.07833	.28726	.76189	.00612

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	533.72	.01216	.08708	.62989	1.0236	202.45
Stddev	3.36	.00011	.00009	.00183	.0082	1.12
%RSD	.62885	.87492	.10473	.29023	.79759	.55419

#1	531.39	.01226	.08710	.63182	1.0169	202.30
#2	532.20	.01205	.08697	.62968	1.0213	201.40
#3	537.57	.01217	.08715	.62818	1.0327	203.63

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-25-O      Acquired: 10/28/2014 16:42:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>36.235</b>	<b>.23511</b>	<b>70.019</b>	<b>3.1470</b>	<b>.00770</b>	<b>87.683</b>
Stddev	.052	.00093	.340	.0236	.00004	.126
%RSD	.14325	.39742	.48537	.74953	.57655	.14382

#1	36.295	.23618	69.791	3.1353	.00775	87.827
#2	36.210	.23475	69.856	3.1317	.00769	87.593
#3	36.201	.23442	70.409	3.1742	.00767	87.629

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.25108</b>	<b>.96586</b>	<b>-.00193</b>	<b>.00897</b>	<b>2.8080</b>	<b>.11758</b>
Stddev	.00102	.00096	.00113	.00335	.0200	.00147
%RSD	.40734	.09926	58.514	37.380	.71293	1.2470

#1	.25180	.96500	-.00322	.00653	2.8292	.11657
#2	.24991	.96689	-.00119	.00759	2.7894	.11926
#3	.25154	.96567	-.00136	.01279	2.8054	.11691

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-25-O      Acquired: 10/28/2014 16:42:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9648</b>	<b>4.7243</b>	<b>-.00789</b>	<b>.32791</b>	<b>2.0112</b>
Stddev	.0049	.0268	.00270	.00186	.0033
%RSD	.16436	.56755	34.270	.56753	.16198

#1	2.9602	4.6991	-.00519	.32902	2.0081
#2	2.9644	4.7212	-.00788	.32894	2.0146
#3	2.9699	4.7525	-.01060	.32576	2.0109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2179.8</b>	<b>4560.6</b>	<b>64238.</b>	<b>12382.</b>
Stddev	.2	4.1	188.	96.
%RSD	.00941	.08974	.29324	.77527

#1	2180.0	4561.1	64075.	12433.
#2	2179.7	4556.2	64196.	12441.
#3	2179.6	4564.3	64444.	12271.

Sample Name: 180-37595-B-26-O      Acquired: 10/28/2014 16:48:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04183</b>	<b>147.28</b>	<b>.08531</b>	<b>.32128</b>	<b>.87593</b>	<b>.00671</b>
Stddev	.00044	.27	.00295	.00103	.00176	.00004
%RSD	1.0613	.18189	3.4615	.32007	.20081	.54063

#1	<b>.04221</b>	<b>147.59</b>	<b>.08194</b>	<b>.32042</b>	<b>.87796</b>	<b>.00673</b>
#2	<b>.04194</b>	<b>147.14</b>	<b>.08658</b>	<b>.32242</b>	<b>.87476</b>	<b>.00667</b>
#3	<b>.04135</b>	<b>147.12</b>	<b>.08742</b>	<b>.32101</b>	<b>.87508</b>	<b>.00673</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>581.16</b>	<b>.01323</b>	<b>.09842</b>	<b>.72082</b>	<b>1.1542</b>	<b>221.69</b>
Stddev	2.27	.00023	.00022	.00163	.0047	.33
%RSD	.39097	1.7609	.22395	.22551	.40659	.14752

#1	<b>583.57</b>	<b>.01300</b>	<b>.09831</b>	<b>.72187</b>	<b>1.1594</b>	<b>221.86</b>
#2	<b>580.85</b>	<b>.01346</b>	<b>.09828</b>	<b>.72164</b>	<b>1.1529</b>	<b>221.91</b>
#3	<b>579.05</b>	<b>.01322</b>	<b>.09868</b>	<b>.71895</b>	<b>1.1502</b>	<b>221.32</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-26-O      Acquired: 10/28/2014 16:48:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>40.527</b>	<b>.26284</b>	<b>77.544</b>	<b>3.4641</b>	<b>.00891</b>	<b>96.596</b>
Stddev	.045	.00158	.134	.0169	.00032	.136
%RSD	.11044	.59931	.17272	.48688	3.5363	.14062

#1	40.578	.26410	77.698	3.4743	.00873	96.722
#2	40.505	.26107	77.464	3.4735	.00928	96.452
#3	40.498	.26335	77.469	3.4447	.00873	96.613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28234</b>	<b>1.1454</b>	<b>.00069</b>	<b>.01168</b>	<b>4.6692</b>	<b>.13612</b>
Stddev	.00141	.0026	.00101	.00276	.0212	.00073
%RSD	.49989	.22800	146.30	23.657	.45318	.53557

#1	.28285	1.1432	-.00036	.01451	4.6851	.13647
#2	.28343	1.1483	.00166	.01153	4.6452	.13662
#3	.28075	1.1447	.00077	.00899	4.6772	.13528

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-26-O      Acquired: 10/28/2014 16:48:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.2202</b>	<b>5.2891</b>	<b>-.00934</b>	<b>.37384</b>	<b>2.2470</b>
Stddev	.0158	.0252	.00209	.00145	.0054
%RSD	.48965	.47722	22.366	.38872	.23976

#1	3.2384	5.3111	-.01069	.37551	2.2477
#2	3.2103	5.2947	-.00694	.37312	2.2521
#3	3.2119	5.2615	-.01040	.37288	2.2413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2144.3</b>	<b>4561.0</b>	<b>63792.</b>	<b>12610.</b>
Stddev	2.1	2.0	61.	72.
%RSD	.09567	.04302	.09512	.56743

#1	2142.0	4559.3	63741.	12541.
#2	2145.9	4560.6	63776.	12606.
#3	2145.1	4563.1	63859.	12684.



Sample Name: 180-37595-A-27-P      Acquired: 10/28/2014 16:53:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03800</b>	<b>146.71</b>	<b>.08434</b>	<b>.32144</b>	<b>.84943</b>	<b>.00674</b>
Stddev	.00038	.19	.00183	.00035	.00186	.00002
%RSD	1.0061	.12822	2.1686	.10915	.21936	.23734

#1	<b>.03775</b>	<b>146.69</b>	<b>.08378</b>	<b>.32183</b>	<b>.84838</b>	<b>.00672</b>
#2	<b>.03781</b>	<b>146.91</b>	<b>.08285</b>	<b>.32114</b>	<b>.85158</b>	<b>.00676</b>
#3	<b>.03844</b>	<b>146.54</b>	<b>.08638</b>	<b>.32135</b>	<b>.84832</b>	<b>.00674</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>565.16</b>	<b>.01193</b>	<b>.10134</b>	<b>.70636</b>	<b>1.1203</b>	<b>224.38</b>
Stddev	2.83	.00019	.00050	.00247	.0024	.66
%RSD	.50067	1.5644	.49107	.34929	.21183	.29519

#1	<b>563.09</b>	<b>.01175</b>	<b>.10190</b>	<b>.70835</b>	<b>1.1198</b>	<b>224.12</b>
#2	<b>568.39</b>	<b>.01213</b>	<b>.10096</b>	<b>.70712</b>	<b>1.1182</b>	<b>223.89</b>
#3	<b>564.01</b>	<b>.01191</b>	<b>.10116</b>	<b>.70360</b>	<b>1.1228</b>	<b>225.14</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-27-P      Acquired: 10/28/2014 16:53:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>40.506</b>	<b>.26168</b>	<b>78.642</b>	<b>3.7668</b>	<b>.00874</b>	<b>97.532</b>
Stddev	.099	.00138	.211	.0084	.00013	.254
%RSD	.24501	.52833	.26786	.22315	1.4668	.26039

#1	40.545	.26197	78.406	3.7751	.00871	97.641
#2	40.580	.26290	78.810	3.7670	.00888	97.714
#3	40.393	.26018	78.711	3.7583	.00864	97.242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.28445</b>	<b>1.1103</b>	<b>-.00361</b>	<b>.01121</b>	<b>4.0395</b>	<b>.12596</b>
Stddev	.00019	.0050	.00190	.00213	.0050	.00071
%RSD	.06671	.45079	52.636	18.971	.12472	.56596

#1	.28464	1.1089	-.00165	.00991	4.0436	.12614
#2	.28445	1.1062	-.00373	.01006	4.0410	.12657
#3	.28426	1.1159	-.00544	.01367	4.0339	.12518

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-27-P      Acquired: 10/28/2014 16:53:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.1297</b>	<b>5.0802</b>	<b>-.01098</b>	<b>.37071</b>	<b>2.1692</b>
Stddev	.0174	.0194	.00058	.00395	.0041
%RSD	.55525	.38231	5.2536	1.0652	.19047

#1	3.1099	5.0698	-.01153	.37436	2.1697
#2	3.1424	5.1027	-.01038	.37125	2.1648
#3	3.1368	5.0683	-.01102	.36652	2.1731

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2152.9</b>	<b>4580.2</b>	<b>64698.</b>	<b>12549.</b>
Stddev	2.4	1.2	143.	20.
%RSD	.11239	.02645	.22134	.16223

#1	2155.0	4579.7	64570.	12530.
#2	2153.4	4579.2	64672.	12547.
#3	2150.3	4581.5	64852.	12571.

Sample Name: 180-37595-A-28-O      Acquired: 10/28/2014 16:59:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02729	133.10	.07066	.29463	.71195	.00611
Stddev	.00024	.17	.00272	.00091	.00187	.00006
%RSD	.88454	.12553	3.8541	.30772	.26265	.98220

#1	.02743	132.92	.07321	.29382	.71386	.00604
#2	.02743	133.26	.07096	.29561	.71188	.00611
#3	.02701	133.11	.06779	.29445	.71012	.00616

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	542.76	.00858	.08864	.58239	.92081	204.75
Stddev	2.73	.00022	.00039	.00302	.00628	2.37
%RSD	.50285	2.5222	.43742	.51862	.68185	1.1567

#1	540.13	.00844	.08819	.58240	.91470	202.61
#2	542.58	.00883	.08886	.57937	.92048	204.36
#3	545.58	.00848	.08886	.58541	.92725	207.29

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-28-O      Acquired: 10/28/2014 16:59:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>37.283</b>	<b>.23867</b>	<b>73.908</b>	<b>3.3160</b>	<b>.00724</b>	<b>95.353</b>
Stddev	.066	.00040	.224	.0271	.00004	.101
%RSD	.17730	.16687	.30277	.81708	.58813	.10624

#1	37.352	.23913	73.672	3.2896	.00721	95.403
#2	37.221	.23839	74.117	3.3146	.00729	95.237
#3	37.276	.23849	73.936	3.3438	.00723	95.421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.24819</b>	<b>.87039</b>	<b>-.00215</b>	<b>.00823</b>	<b>4.2212</b>	<b>.10458</b>
Stddev	.00140	.00283	.00277	.00267	.0031	.00069
%RSD	.56298	.32461	129.16	32.489	.07415	.66071

#1	.24947	.86730	-.00300	.00586	4.2186	.10395
#2	.24670	.87100	-.00439	.00770	4.2247	.10532
#3	.24840	.87285	.00095	.01113	4.2203	.10447

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-28-O      Acquired: 10/28/2014 16:59:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.0159</b>	<b>4.6110</b>	<b>-.00591</b>	<b>.32862</b>	<b>1.8534</b>
Stddev	.0167	.0186	.00055	.00663	.0025
%RSD	.55477	.40342	9.2287	2.0162	.13528

#1	2.9972	4.5936	-.00611	.33626	1.8511
#2	3.0293	4.6088	-.00633	.32453	1.8529
#3	3.0213	4.6306	-.00529	.32507	1.8561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2167.9</b>	<b>4536.7</b>	<b>63777.</b>	<b>12377.</b>
Stddev	2.0	7.9	226.	54.
%RSD	.09257	.17325	.35423	.43945

#1	2168.9	4540.9	63526.	12426.
#2	2165.6	4527.6	63965.	12386.
#3	2169.2	4541.5	63841.	12319.

Sample Name: 180-37595-B-29-O      Acquired: 10/28/2014 17:04:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03685	148.26	.09557	.31686	.82448	.00701
Stddev	.00032	.38	.00147	.00101	.00243	.00004
%RSD	.86230	.25620	1.5424	.32014	.29512	.61676

#1	.03720	147.85	.09676	.31702	.82168	.00703
#2	.03678	148.59	.09392	.31779	.82613	.00704
#3	.03658	148.34	.09602	.31578	.82562	.00696

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	559.99	.01547	.10278	.73162	.97478	229.62
Stddev	3.10	.00018	.00054	.00363	.00322	2.25
%RSD	.55302	1.1725	.52970	.49634	.32997	.97955

#1	562.47	.01568	.10216	.73543	.97251	229.97
#2	560.98	.01541	.10317	.72820	.97846	231.68
#3	556.52	.01533	.10302	.73122	.97336	227.22

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-B-29-O      Acquired: 10/28/2014 17:04:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>41.084</b>	<b>.27383</b>	<b>77.687</b>	<b>4.3820</b>	<b>.01001</b>	<b>92.534</b>
Stddev	.080	.00015	.229	.0156	.00020	.115
%RSD	.19483	.05379	.29454	.35506	2.0469	.12452

#1	40.998	.27400	77.646	4.3890	.01020	92.403
#2	41.097	.27375	77.933	4.3928	.00980	92.580
#3	41.156	.27374	77.481	4.3642	.01003	92.620

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.30102</b>	<b>1.0565</b>	<b>-.00146</b>	<b>.00934</b>	<b>3.7948</b>	<b>.11353</b>
Stddev	.00123	.0030	.00060	.00163	.0077	.00011
%RSD	.40727	.28289	41.250	17.474	.20242	.09767

#1	.30218	1.0584	-.00198	.00759	3.8013	.11351
#2	.30113	1.0581	-.00160	.00962	3.7968	.11343
#3	.29974	1.0531	-.00080	.01082	3.7863	.11365

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-B-29-O      Acquired: 10/28/2014 17:04:45      Type: Unk  
 Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
 User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
 Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.1618</b>	<b>5.0369</b>	<b>-.00763</b>	<b>.41730</b>	<b>2.0695</b>
Stddev	.0142	.0325	.00173	.00165	.0070
%RSD	.45041	.64607	22.629	.39514	.34070

#1	3.1500	5.0650	-.00880	.41909	2.0704
#2	3.1776	5.0446	-.00565	.41694	2.0760
#3	3.1579	5.0012	-.00845	.41585	2.0620

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2157.8</b>	<b>4606.0</b>	<b>64723.</b>	<b>12670.</b>
Stddev	1.6	4.4	227.	50.
%RSD	.07266	.09630	.35059	.39546

#1	2156.7	4601.2	64461.	12638.
#2	2157.1	4606.9	64850.	12644.
#3	2159.6	4609.9	64857.	12727.

Sample Name: 180-37595-A-30-BB      Acquired: 10/28/2014 17:10:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04055	139.07	.08248	.29870	.82590	.00639
Stddev	.00030	.28	.00213	.00148	.00079	.00008
%RSD	.73398	.20418	2.5857	.49493	.09570	1.2017

#1	.04023	138.86	.08493	.29923	.82592	.00635
#2	.04061	138.95	.08148	.29703	.82510	.00635
#3	.04082	139.39	.08104	.29984	.82668	.00648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	535.72	.01455	.09272	.69386	1.2299	213.20
Stddev	1.84	.00019	.00007	.00194	.0009	1.06
%RSD	.34354	1.3030	.07771	.27923	.07015	.49704

#1	537.32	.01464	.09272	.69281	1.2305	213.12
#2	536.12	.01433	.09280	.69609	1.2289	214.30
#3	533.71	.01467	.09265	.69267	1.2302	212.19

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BB      Acquired: 10/28/2014 17:10:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>37.941</b>	<b>.24948</b>	<b>74.317</b>	<b>3.1346</b>	<b>.01150</b>	<b>86.251</b>
Stddev	.069	.00051	.244	.0079	.00006	.093
%RSD	.18313	.20356	.32867	.25237	.52487	.10788

#1	37.966	.24928	74.035	3.1438	.01144	86.296
#2	37.863	.24910	74.467	3.1294	.01156	86.144
#3	37.995	.25006	74.449	3.1308	.01151	86.313

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.27669</b>	<b>1.1630</b>	<b>-.00180</b>	<b>.00852</b>	<b>3.6550</b>	<b>.12930</b>
Stddev	.00184	.0067	.00080	.00323	.0110	.00103
%RSD	.66575	.57654	44.382	37.924	.30023	.79429

#1	.27770	1.1553	-.00126	.00567	3.6659	.12857
#2	.27456	1.1665	-.00142	.01203	3.6440	.13047
#3	.27781	1.1673	-.00271	.00785	3.6550	.12886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BB      Acquired: 10/28/2014 17:10:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.9649	4.8732	-.00746	.35764	2.2519
Stddev	.0159	.0127	.00104	.00208	.0043
%RSD	.53770	.26087	13.962	.58225	.19319

#1	2.9465	4.8605	-.00708	.35540	2.2479
#2	2.9744	4.8860	-.00666	.35799	2.2513
#3	2.9739	4.8730	-.00863	.35952	2.2565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2170.0	4579.0	64678.	12563.
Stddev	5.4	16.8	110.	9.
%RSD	.24998	.36597	.17002	.07311

#1	2173.4	4583.8	64570.	12555.
#2	2172.9	4592.8	64674.	12562.
#3	2163.7	4560.3	64790.	12573.

Sample Name: 180-37595-A-30BBSD@5      Acquired: 10/28/2014 17:15:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00827	30.065	.01860	.06626	.18125	.00143
Stddev	.00013	.046	.00247	.00045	.00011	.00001
%RSD	1.5411	.15184	13.275	.67627	.06102	.97098

#1	.00842	30.111	.01982	.06666	.18113	.00142
#2	.00818	30.065	.01576	.06635	.18130	.00143
#3	.00822	30.020	.02022	.06577	.18133	.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	124.95	.00312	.01809	.15663	.27813	50.817
Stddev	.48	.00014	.00043	.00114	.00122	.199
%RSD	.38372	4.3602	2.3969	.72500	.43779	.39072

#1	125.31	.00326	.01759	.15744	.27953	50.891
#2	125.13	.00300	.01834	.15711	.27730	50.968
#3	124.40	.00309	.01834	.15533	.27757	50.592

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30BBSD@5      Acquired: 10/28/2014 17:15:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>8.1215</b>	<b>.05266</b>	<b>16.508</b>	<b>.77922</b>	<b>.00193</b>	<b>18.703</b>
Stddev	.0232	.00024	.030	.00387	.00022	.007
%RSD	.28510	.45608	.18042	.49609	11.550	.03640

#1	8.1462	.05247	16.517	.78292	.00204	18.709
#2	8.1181	.05293	16.533	.77952	.00208	18.705
#3	8.1003	.05258	16.475	.77521	.00167	18.696

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05483</b>	<b>.23680</b>	<b>.00056</b>	<b>.00388</b>	<b>.80067</b>	<b>.03027</b>
Stddev	.00031	.00359	.00126	.00217	.00717	.00062
%RSD	.57444	1.5160	224.73	55.952	.89525	2.0482

#1	.05448	.23574	.00199	.00169	.79282	.03044
#2	.05493	.24080	.00009	.00603	.80233	.02958
#3	.05508	.23386	-.00040	.00392	.80687	.03079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30BBSD@5      Acquired: 10/28/2014 17:15:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.67885</b>	<b>1.1603</b>	<b>-.00275</b>	<b>.07568</b>	<b>.53265</b>
Stddev	.00260	.0055	.00110	.00177	.00085
%RSD	.38237	.47694	40.010	2.3366	.15865

#1	<b>.67613</b>	<b>1.1657</b>	<b>-.00362</b>	<b>.07637</b>	<b>.53195</b>
#2	<b>.68131</b>	<b>1.1605</b>	<b>-.00151</b>	<b>.07700</b>	<b>.53359</b>
#3	<b>.67910</b>	<b>1.1547</b>	<b>-.00310</b>	<b>.07367</b>	<b>.53243</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2547.9</b>	<b>4537.7</b>	<b>64275.</b>	<b>11697.</b>
Stddev	2.7	10.6	164.	54.
%RSD	.10472	.23422	.25508	.46169

#1	2545.1	4531.3	64260.	11652.
#2	2548.3	4531.7	64119.	11682.
#3	2550.4	4549.9	64445.	11757.

Sample Name: CCV 1369837      Acquired: 10/28/2014 17:20:48      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0419	25.078	.52765	2.0929	2.0102	1.9766
Stddev	.0007	.021	.00218	.0008	.0033	.0036
%RSD	.06988	.08395	.41373	.03760	.16232	.18413

#1	1.0427	25.057	.52569	2.0919	2.0085	1.9806
#2	1.0416	25.078	.53000	2.0933	2.0081	1.9754
#3	1.0414	25.099	.52726	2.0933	2.0140	1.9736

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.006	.51752	2.1049	2.0243	1.8954	25.764
Stddev	.014	.00060	.0017	.0097	.0058	.039
%RSD	.02871	.11507	.08217	.47892	.30553	.15170

#1	49.992	.51711	2.1030	2.0310	1.8911	25.788
#2	50.020	.51725	2.1064	2.0287	1.8931	25.785
#3	50.007	.51820	2.1053	2.0132	1.9020	25.719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 17:20:48      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.36</b>	<b>2.0239</b>	<b>49.244</b>	<b>1.8481</b>	<b>1.9542</b>	<b>129.35</b>
Stddev	.45	.0034	.097	.0042	.0001	.34
%RSD	.35683	.16698	.19746	.22482	.00443	.26606

#1	125.86	2.0202	49.353	1.8446	1.9543	128.97
#2	126.48	2.0268	49.164	1.8470	1.9541	129.47
#3	126.74	2.0247	49.217	1.8527	1.9542	129.63

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0661</b>	<b>.50401</b>	<b>.51356</b>	<b>.51459</b>	<b>2.0452</b>	<b>1.8937</b>
Stddev	.0024	.00190	.00270	.00275	.0173	.0027
%RSD	.11480	.37659	.52528	.53521	.84674	.13989

#1	2.0674	.50328	.51248	.51372	2.0401	1.8913
#2	2.0675	.50258	.51157	.51768	2.0309	1.8932
#3	2.0634	.50616	.51663	.51238	2.0644	1.8965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 17:20:48      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9021	1.9201	.95372	2.1904	1.9887
Stddev	.0057	.0028	.00245	.0085	.0046
%RSD	.30020	.14623	.25674	.38733	.23237

#1	1.9059	1.9175	.95151	2.1978	1.9843
#2	1.8955	1.9231	.95330	2.1924	1.9884
#3	1.9048	1.9198	.95635	2.1812	1.9935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2372.7	4286.4	60765.	11318.
Stddev	3.1	5.3	61.	30.
%RSD	.13145	.12412	.09972	.26196

#1	2374.7	4291.5	60715.	11349.
#2	2369.1	4280.9	60747.	11317.
#3	2374.3	4286.8	60832.	11289.

Sample Name: CCB13      Acquired: 10/28/2014 17:25:35      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00012</b>	<b>.00267</b>	<b>-.00006</b>	<b>.00082</b>	<b>.00007</b>	<b>.00007</b>
Stddev	.00013	.00725	.00085	.00026	.00010	.00001
%RSD	110.48	272.06	1493.0	31.990	130.76	8.0341

#1	.00003	-.00304	-.00100	.00111	-.00004	.00008
#2	-.00021	.01083	.00065	.00076	.00012	.00007
#3	-.00019	.00021	.00018	.00060	.00013	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00677</b>	<b>-.00003</b>	<b>.00010</b>	<b>.00035</b>	<b>.00143</b>	<b>.00318</b>
Stddev	.00113	.00005	.00003	.00023	.00017	.00032
%RSD	16.763	195.70	28.265	66.900	12.051	10.164

#1	-.00578	.00001	.00007	.00062	.00145	.00284
#2	-.00652	-.00000	.00012	.00024	.00124	.00348
#3	-.00801	-.00009	.00011	.00019	.00159	.00321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB13      Acquired: 10/28/2014 17:25:35      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01967	.00014	.01869	.00011	.00132	.01542
Stddev	.00656	.00023	.02130	.00005	.00035	.00331
%RSD	33.363	163.30	113.97	43.027	26.842	21.463

#1	.01228	.00005	-.00583	.00005	.00167	.01893
#2	.02192	-.00003	.02925	.00012	.00133	.01497
#3	.02482	.00040	.03265	.00014	.00096	.01236

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00041	.00083	.00077	.00518	.00036
Stddev	.00022	.00123	.00045	.00140	.00671	.00016
%RSD	109.23	299.15	53.547	181.87	129.38	45.711

#1	-.00003	.00163	.00128	-.00007	-.00255	.00054
#2	.00042	-.00083	.00039	-.00001	.00938	.00025
#3	.00022	.00043	.00082	.00239	.00873	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB13      Acquired: 10/28/2014 17:25:35      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00350	.00025	.00043	.00141	-.00011
Stddev	.00321	.00011	.00071	.00120	.00009
%RSD	91.921	43.649	164.24	85.442	84.481

#1	.00636	.00038	-.00036	.00031	-.00003
#2	.00002	.00021	.00066	.00123	-.00009
#3	.00411	.00017	.00100	.00269	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2929.2	4590.1	66027.	11436.
Stddev	7.0	14.4	135.	29.
%RSD	.24016	.31468	.20391	.25368

#1	2921.1	4574.0	66125.	11421.
#2	2933.8	4594.4	65874.	11469.
#3	2932.7	4601.9	66084.	11417.

Sample Name: 180-37595-A-30-BC MS      Acquired: 10/28/2014 17:30:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07672	154.49	.41215	.94183	2.1493	.03798
Stddev	.00025	1.17	.00271	.00181	.0165	.00028
%RSD	.32609	.75756	.65829	.19206	.76728	.74804

#1	.07645	155.12	.41478	.94157	2.1593	.03815
#2	.07693	155.20	.41231	.94376	2.1583	.03814
#3	.07679	153.14	.40936	.94017	2.1303	.03765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	521.22	.04707	.45186	.77776	1.2555	198.87
Stddev	5.55	.00028	.00037	.00250	.0159	3.11
%RSD	1.0646	.59444	.08217	.32127	1.2663	1.5614

#1	524.24	.04713	.45223	.77687	1.2539	196.48
#2	524.60	.04731	.45149	.77583	1.2722	202.38
#3	514.81	.04676	.45187	.78058	1.2405	197.75

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BC MS      Acquired: 10/28/2014 17:30:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>73.940</b>	<b>.92916</b>	<b>100.27</b>	<b>3.1155</b>	<b>.60404</b>	<b>113.78</b>
Stddev	.514	.00657	.89	.0302	.00027	.81
%RSD	.69473	.70761	.88972	.96828	.04457	.71252

#1	74.151	.93345	100.57	3.1007	.60433	114.23
#2	74.314	.93244	100.97	3.1502	.60398	114.27
#3	73.354	.92159	99.264	3.0955	.60381	112.85

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.61639</b>	<b>1.4122</b>	<b>.16855</b>	<b>.33530</b>	<b>4.0987</b>	<b>1.2191</b>
Stddev	.00179	.0028	.00092	.00625	.0299	.0003
%RSD	.29120	.19544	.54506	1.8627	.73001	.02634

#1	.61701	1.4118	.16961	.33634	4.1120	1.2194
#2	.61436	1.4152	.16797	.34095	4.1197	1.2190
#3	.61779	1.4098	.16807	.32859	4.0644	1.2188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BC MS      Acquired: 10/28/2014 17:30:46      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.2703</b>	<b>5.4839</b>	<b>.32184</b>	<b>.73077</b>	<b>2.3553</b>
Stddev	.0318	.0548	.00221	.00562	.0034
%RSD	.97309	.99919	.68656	.76970	.14549

#1	3.2865	5.4904	.32242	.73579	2.3581
#2	3.2907	5.5352	.31940	.72469	2.3564
#3	3.2336	5.4262	.32371	.73183	2.3515

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2132.3</b>	<b>4507.1</b>	<b>63243.</b>	<b>12410.</b>
Stddev	2.3	5.7	209.	108.
%RSD	.10711	.12739	.33080	.86988

#1	2131.2	4500.5	63246.	12400.
#2	2134.9	4509.9	63451.	12308.
#3	2130.7	4511.0	63032.	12523.



Sample Name: 180-37595-A-30-BDMSD      Acquired: 10/28/2014 17:36:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08090	176.62	.44829	1.0220	2.3865	.04194
Stddev	.00010	.17	.00341	.0086	.0036	.00008
%RSD	.12115	.09475	.76061	.83653	.15003	.19524

#1	.08085	176.74	.44461	1.0135	2.3893	.04187
#2	.08102	176.69	.44889	1.0219	2.3825	.04193
#3	.08084	176.43	.45135	1.0306	2.3878	.04203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	568.61	.05118	.50524	.86844	1.4394	228.37
Stddev	4.96	.00038	.00483	.00268	.0116	1.31
%RSD	.87248	.74633	.95576	.30902	.80731	.57366

#1	572.63	.05084	.50089	.87123	1.4453	228.05
#2	570.14	.05111	.50441	.86588	1.4469	229.81
#3	563.07	.05160	.51043	.86821	1.4260	227.25

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BDMSD      Acquired: 10/28/2014 17:36:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>84.192</b>	<b>1.0313</b>	<b>113.58</b>	<b>3.5287</b>	<b>.66863</b>	<b>126.38</b>
Stddev	.310	.0023	.25	.0295	.00579	.39
%RSD	.36794	.22128	.21652	.83566	.86540	.30609

#1	84.455	1.0339	113.40	3.5354	.66324	126.71
#2	84.271	1.0306	113.48	3.5543	.66792	126.48
#3	83.851	1.0295	113.86	3.4964	.67475	125.96

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.69077</b>	<b>1.6043</b>	<b>.19460</b>	<b>.36524</b>	<b>3.6644</b>	<b>1.3482</b>
Stddev	.00591	.0185	.00469	.00196	.0221	.0120
%RSD	.85581	1.1507	2.4101	.53739	.60316	.88814

#1	.68570	1.5837	.18918	.36493	3.6878	1.3371
#2	.68934	1.6095	.19719	.36734	3.6438	1.3468
#3	.69726	1.6195	.19741	.36345	3.6617	1.3609

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BDMSD      Acquired: 10/28/2014 17:36:08      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.6323</b>	<b>6.1439</b>	<b>.34214</b>	<b>.80579</b>	<b>2.6144</b>
Stddev	.0146	.0211	.00128	.00870	.0258
%RSD	.40243	.34425	.37360	1.0800	.98800

#1	3.6161	6.1524	.34292	.80961	2.5928
#2	3.6360	6.1595	.34066	.79583	2.6075
#3	3.6447	6.1199	.34284	.81192	2.6430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2097.5</b>	<b>4538.7</b>	<b>63946.</b>	<b>12415.</b>
Stddev	14.5	28.9	70.	65.
%RSD	.68913	.63731	.10993	.52526

#1	2110.0	4564.7	63880.	12389.
#2	2100.9	4543.8	63938.	12367.
#3	2081.7	4507.5	64020.	12489.

Sample Name: 180-37595-A-30-BBPDS      Acquired: 10/28/2014 17:41:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08755	137.20	.53399	1.1688	2.5757	.04942
Stddev	.00020	.07	.00509	.0038	.0052	.00016
%RSD	.22619	.04986	.95406	.32497	.20096	.32284

#1	.08767	137.22	.53637	1.1714	2.5811	.04960
#2	.08766	137.25	.52814	1.1645	2.5752	.04934
#3	.08733	137.12	.53745	1.1707	2.5708	.04931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	563.57	.05883	.59444	.83499	1.4057	209.44
Stddev	1.71	.00002	.00086	.00304	.0074	1.84
%RSD	.30351	.02987	.14398	.36440	.52658	.87655

#1	565.53	.05885	.59404	.83593	1.3983	207.73
#2	562.36	.05882	.59542	.83746	1.4056	211.38
#3	562.82	.05882	.59385	.83159	1.4131	209.19

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BBPDS      Acquired: 10/28/2014 17:41:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>82.468</b>	<b>1.1758</b>	<b>115.28</b>	<b>3.3993</b>	<b>.83192</b>	<b>130.18</b>
Stddev	.113	.0006	.09	.0202	.00047	.05
%RSD	.13734	.05140	.08025	.59413	.05662	.04199

#1	82.422	1.1758	115.31	3.3785	.83221	130.12
#2	82.386	1.1763	115.18	3.4007	.83138	130.23
#3	82.598	1.1751	115.36	3.4188	.83218	130.19

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.76012</b>	<b>1.6029</b>	<b>.45241</b>	<b>.45415</b>	<b>12.399</b>	<b>1.6215</b>
Stddev	.00129	.0043	.00205	.00166	.025	.0021
%RSD	.16997	.26977	.45393	.36545	.20175	.12771

#1	.76149	1.6072	.45335	.45341	12.385	1.6226
#2	.75893	1.6031	.45005	.45605	12.385	1.6228
#3	.75995	1.5985	.45382	.45299	12.428	1.6191

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37595-A-30-BBPDS      Acquired: 10/28/2014 17:41:29      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.6725</b>	<b>5.5195</b>	<b>.42830</b>	<b>.82831</b>	<b>2.5578</b>
Stddev	.0124	.0345	.00336	.00200	.0034
%RSD	.33733	.62481	.78383	.24089	.13269

#1	3.6622	5.4851	.42801	.83033	2.5555
#2	3.6691	5.5193	.43179	.82825	2.5617
#3	3.6863	5.5541	.42509	.82634	2.5561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2107.4</b>	<b>4514.7</b>	<b>63784.</b>	<b>12299.</b>
Stddev	4.1	10.0	238.	51.
%RSD	.19381	.22143	.37315	.41307

#1	2103.4	4503.9	63764.	12354.
#2	2107.4	4523.6	63556.	12290.
#3	2111.6	4516.7	64031.	12254.

Sample Name: 180-37595-A-32-E      Acquired: 10/28/2014 17:46:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00097</b>	<b>46.536</b>	<b>.04844</b>	<b>.12968</b>	<b>.15389</b>	<b>.00282</b>
Stddev	.00006	.097	.00047	.00042	.00036	.00007
%RSD	5.8509	.20740	.96202	.32138	.23439	2.3387

#1	<b>-.00091</b>	<b>46.635</b>	<b>.04795</b>	<b>.12989</b>	<b>.15431</b>	<b>.00282</b>
#2	<b>-.00102</b>	<b>46.528</b>	<b>.04887</b>	<b>.12995</b>	<b>.15370</b>	<b>.00275</b>
#3	<b>-.00099</b>	<b>46.443</b>	<b>.04850</b>	<b>.12920</b>	<b>.15367</b>	<b>.00288</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>29.849</b>	<b>.00157</b>	<b>.03315</b>	<b>.18102</b>	<b>.07988</b>	<b>134.63</b>
Stddev	.065	.00006	.00026	.00048	.00042	.22
%RSD	.21784	3.6278	.78131	.26699	.53049	.16221

#1	<b>29.916</b>	<b>.00155</b>	<b>.03322</b>	<b>.18079</b>	<b>.08030</b>	<b>134.88</b>
#2	<b>29.786</b>	<b>.00163</b>	<b>.03336</b>	<b>.18157</b>	<b>.07991</b>	<b>134.47</b>
#3	<b>29.844</b>	<b>.00153</b>	<b>.03286</b>	<b>.18069</b>	<b>.07945</b>	<b>134.55</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37595-A-32-E      Acquired: 10/28/2014 17:46:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>15.671</b>	<b>.08819</b>	<b>24.222</b>	<b>.88542</b>	<b>.01161</b>	<b>37.958</b>
Stddev	.028	.00052	.070	.00526	.00022	.050
%RSD	.18025	.58490	.28919	.59409	1.9347	.13301

#1	<b>15.686</b>	<b>.08864</b>	<b>24.299</b>	<b>.88786</b>	<b>.01182</b>	<b>38.013</b>
#2	<b>15.639</b>	<b>.08830</b>	<b>24.163</b>	<b>.87938</b>	<b>.01164</b>	<b>37.945</b>
#3	<b>15.690</b>	<b>.08762</b>	<b>24.203</b>	<b>.88901</b>	<b>.01137</b>	<b>37.915</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.17251</b>	<b>.06810</b>	<b>.00298</b>	<b>.00250</b>	<b>2.6226</b>	<b>.02762</b>
Stddev	.00068	.00009	.00138	.00319	.0290	.00038
%RSD	.39460	.12821	46.458	127.28	1.1072	1.3917

#1	<b>.17195</b>	<b>.06805</b>	<b>.00173</b>	<b>.00487</b>	<b>2.6102</b>	<b>.02718</b>
#2	<b>.17327</b>	<b>.06805</b>	<b>.00447</b>	<b>.00376</b>	<b>2.6558</b>	<b>.02786</b>
#3	<b>.17231</b>	<b>.06820</b>	<b>.00274</b>	<b>-.00112</b>	<b>2.6019</b>	<b>.02782</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37595-A-32-E      Acquired: 10/28/2014 17:46:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15807	3.3193	-.00260	.18075	.29546
Stddev	.00282	.0159	.00140	.00260	.00005
%RSD	1.7860	.47897	53.988	1.4408	.01852

#1	.16113	3.3153	-.00366	.17894	.29540
#2	.15556	3.3057	-.00313	.18373	.29551
#3	.15754	3.3368	-.00101	.17958	.29547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2566.4	4625.2	65735.	12140.
Stddev	4.9	10.2	166.	43.
%RSD	.19204	.22059	.25190	.35823

#1	2564.9	4615.7	65722.	12127.
#2	2562.4	4624.0	65577.	12189.
#3	2571.9	4636.0	65907.	12105.

Sample Name: CCV 1369837      Acquired: 10/28/2014 17:51:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0387</b>	<b>25.004</b>	<b>.52275</b>	<b>2.0783</b>	<b>2.0000</b>	<b>1.9766</b>
Stddev	.0030	.054	.00202	.0031	.0036	.0029
%RSD	.28620	.21708	.38724	.14774	.17861	.14680

#1	1.0421	25.060	.52088	2.0786	2.0034	1.9784
#2	1.0376	24.952	.52248	2.0751	2.0001	1.9782
#3	1.0364	25.002	.52490	2.0812	1.9963	1.9733

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.741</b>	<b>.51449</b>	<b>2.0910</b>	<b>2.0177</b>	<b>1.8865</b>	<b>25.828</b>
Stddev	.057	.00074	.0040	.0095	.0092	.069
%RSD	.11393	.14477	.18930	.47251	.48950	.26822

#1	49.796	.51530	2.0946	2.0285	1.8880	25.907
#2	49.682	.51382	2.0916	2.0104	1.8767	25.778
#3	49.745	.51435	2.0867	2.0142	1.8950	25.800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 17:51:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>125.85</b>	<b>2.0289</b>	<b>49.203</b>	<b>1.8472</b>	<b>1.9442</b>	<b>128.90</b>
Stddev	.44	.0077	.061	.0108	.0006	.22
%RSD	.34698	.38023	.12320	.58465	.03032	.16708

#1	126.36	2.0368	49.213	1.8487	1.9436	129.14
#2	125.56	2.0287	49.138	1.8358	1.9442	128.86
#3	125.64	2.0213	49.258	1.8573	1.9448	128.72

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0522</b>	<b>.49644</b>	<b>.51493</b>	<b>.51073</b>	<b>2.0329</b>	<b>1.8810</b>
Stddev	.0028	.00213	.00144	.00361	.0046	.0011
%RSD	.13792	.42863	.28002	.70669	.22371	.06004

#1	2.0545	.49884	.51515	.51365	2.0381	1.8814
#2	2.0530	.49571	.51624	.50669	2.0309	1.8819
#3	2.0490	.49478	.51339	.51185	2.0297	1.8798

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 17:51:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8939	1.9056	.95039	2.1837	1.9693
Stddev	.0019	.0085	.00126	.0131	.0047
%RSD	.09975	.44823	.13310	.59913	.23829

#1	1.8939	1.9098	.95061	2.1934	1.9728
#2	1.8920	1.8958	.95153	2.1889	1.9711
#3	1.8958	1.9112	.94903	2.1688	1.9640

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2384.1	4301.1	60715.	11304.
Stddev	4.1	2.3	178.	48.
%RSD	.17136	.05408	.29346	.42170

#1	2381.9	4300.9	60516.	11295.
#2	2381.6	4298.9	60769.	11356.
#3	2388.8	4303.5	60860.	11262.

Sample Name: CCB14      Acquired: 10/28/2014 17:56:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00010</b>	<b>.00417</b>	<b>.00084</b>	<b>.00150</b>	<b>.00006</b>	<b>.00011</b>
Stddev	.00021	.02083	.00179	.00024	.00004	.00006
%RSD	203.85	499.52	212.27	15.798	79.209	54.558
#1	<b>-.00027</b>	<b>-.00017</b>	<b>-.00031</b>	<b>.00157</b>	<b>.00011</b>	<b>.00005</b>
#2	<b>.00013</b>	<b>.02682</b>	<b>-.00006</b>	<b>.00123</b>	<b>.00004</b>	<b>.00011</b>
#3	<b>-.00017</b>	<b>-.01415</b>	<b>.00290</b>	<b>.00169</b>	<b>.00002</b>	<b>.00016</b>
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00752</b>	<b>.00011</b>	<b>.00020</b>	<b>.00036</b>	<b>.00150</b>	<b>.00267</b>
Stddev	.00044	.00008	.00002	.00025	.00051	.00171
%RSD	5.7897	73.837	9.5693	69.080	33.810	63.983
#1	<b>-.00737</b>	<b>.00002</b>	<b>.00019</b>	<b>.00034</b>	<b>.00097</b>	<b>.00217</b>
#2	<b>-.00801</b>	<b>.00017</b>	<b>.00018</b>	<b>.00063</b>	<b>.00198</b>	<b>.00457</b>
#3	<b>-.00718</b>	<b>.00013</b>	<b>.00022</b>	<b>.00013</b>	<b>.00156</b>	<b>.00127</b>
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB14      Acquired: 10/28/2014 17:56:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03703	-.00003	.02600	.00014	.00114	.01931
Stddev	.00575	.00013	.01223	.00002	.00033	.00818
%RSD	15.522	388.84	47.043	17.868	29.048	42.362

#1	.03446	-.00016	.03792	.00014	.00134	.01145
#2	.04362	-.00004	.01348	.00016	.00132	.02777
#3	.03302	.00010	.02660	.00011	.00076	.01870

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00037	.00144	.00045	.00843	.00030
Stddev	.00025	.00103	.00057	.00125	.00676	.00019
%RSD	109.24	279.63	39.650	274.08	80.145	62.863

#1	.00051	.00152	.00106	.00128	.01568	.00019
#2	.00007	-.00047	.00117	.00106	.00230	.00019
#3	.00009	.00006	.00210	-.00098	.00732	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB14      Acquired: 10/28/2014 17:56:40      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00415	.00026	.00063	.00035	-.00016
Stddev	.00107	.00009	.00096	.00114	.00012
%RSD	25.741	35.945	151.28	322.71	70.651

#1	.00531	.00017	.00171	.00068	-.00005
#2	.00396	.00026	.00032	-.00092	-.00028
#3	.00320	.00036	-.00013	.00130	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2952.6	4627.9	65778.	11421.
Stddev	58.2	95.5	95.	110.
%RSD	1.9723	2.0636	.14497	.96592

#1	3019.8	4738.2	65684.	11316.
#2	2915.8	4573.4	65776.	11536.
#3	2922.4	4572.2	65875.	11411.

Sample Name: CRI 1369147      Acquired: 10/28/2014 18:01:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00519	.18916	.01179	.20809	.20341	.00398
Stddev	.00017	.01042	.00133	.00068	.00030	.00006
%RSD	3.1956	5.5090	11.268	.32720	.14948	1.4885

#1	.00501	.18067	.01156	.20761	.20308	.00401
#2	.00534	.20079	.01059	.20779	.20369	.00401
#3	.00523	.18603	.01322	.20887	.20345	.00391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0580	.00505	.04926	.00507	.02651	.10612
Stddev	.0173	.00009	.00003	.00021	.00054	.00250
%RSD	.34195	1.8679	.05887	4.0432	2.0185	2.3539

#1	5.0702	.00500	.04927	.00519	.02712	.10829
#2	5.0382	.00516	.04923	.00484	.02627	.10667
#3	5.0656	.00500	.04928	.00519	.02613	.10339

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CRI 1369147      Acquired: 10/28/2014 18:01:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0710	.05022	5.0272	.01513	.04068	5.2963
Stddev	.0573	.00042	.0368	.00008	.00035	.0172
%RSD	1.1305	.83686	.73210	.51832	.87116	.32533

#1	5.1156	.04981	5.0591	.01518	.04032	5.3018
#2	5.0063	.05065	5.0355	.01504	.04068	5.2770
#3	5.0911	.05021	4.9870	.01517	.04103	5.3101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03916	.01025	.01038	.01097	.49873	.10163
Stddev	.00026	.00069	.00125	.00401	.00190	.00012
%RSD	.67589	6.6862	12.019	36.554	.38084	.11689

#1	.03946	.00991	.00974	.00635	.49886	.10155
#2	.03904	.01104	.01182	.01354	.50056	.10157
#3	.03898	.00980	.00959	.01303	.49677	.10177

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 1369147      Acquired: 10/28/2014 18:01:52      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05223	.05192	.01904	.05184	.02000
Stddev	.00220	.00021	.00059	.00063	.00009
%RSD	4.2206	.41171	3.0869	1.2172	.44961

#1	.04969	.05216	.01899	.05256	.01995
#2	.05349	.05174	.01965	.05158	.01995
#3	.05353	.05187	.01848	.05138	.02010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2843.6	4552.1	65232.	11536.
Stddev	1.5	6.2	67.	47.
%RSD	.05231	.13542	.10315	.40981

#1	2845.2	4558.6	65177.	11489.
#2	2843.5	4551.2	65213.	11583.
#3	2842.2	4546.4	65307.	11536.

Sample Name: CCV 1369837      Acquired: 10/28/2014 18:07:00      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0444	25.148	.51968	2.0815	2.0075	1.9861
Stddev	.0007	.057	.00102	.0036	.0045	.0070
%RSD	.06869	.22466	.19583	.17407	.22482	.35160

#1	1.0436	25.200	.52057	2.0815	2.0120	1.9891
#2	1.0449	25.156	.51857	2.0779	2.0030	1.9781
#3	1.0448	25.088	.51989	2.0851	2.0074	1.9910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.317	.51687	2.0992	2.0344	1.9027	25.865
Stddev	.097	.00097	.0027	.0094	.0027	.084
%RSD	.19221	.18696	.12861	.46166	.14437	.32543

#1	50.352	.51643	2.0985	2.0324	1.8996	25.944
#2	50.208	.51621	2.1022	2.0261	1.9036	25.777
#3	50.392	.51798	2.0970	2.0446	1.9048	25.874

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 18:07:00      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.49	2.0243	49.695	1.8753	1.9572	129.57
Stddev	.29	.0029	.209	.0048	.0025	.19
%RSD	.23218	.14109	.42046	.25444	.12664	.14899

#1	126.83	2.0274	49.659	1.8802	1.9597	129.79
#2	126.38	2.0218	49.507	1.8750	1.9572	129.42
#3	126.28	2.0236	49.920	1.8707	1.9548	129.49

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0633	.50150	.51311	.51056	2.0490	1.8928
Stddev	.0043	.00251	.00169	.00278	.0132	.0031
%RSD	.20635	.50119	.32985	.54441	.64506	.16258

#1	2.0653	.50440	.51429	.51211	2.0638	1.8921
#2	2.0661	.50016	.51388	.50735	2.0383	1.8902
#3	2.0584	.49994	.51117	.51223	2.0448	1.8962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 18:07:00      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9224	1.9306	.95801	2.1755	1.9790
Stddev	.0110	.0029	.00128	.0094	.0022
%RSD	.57402	.14774	.13408	.43111	.10933

#1	1.9143	1.9274	.95910	2.1714	1.9775
#2	1.9180	1.9313	.95835	2.1689	1.9815
#3	1.9350	1.9330	.95660	2.1863	1.9781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2377.4	4296.7	60251.	11143.
Stddev	1.0	5.5	223.	22.
%RSD	.04242	.12880	.37024	.19318

#1	2376.3	4296.0	60379.	11162.
#2	2377.9	4302.6	60381.	11147.
#3	2378.2	4291.6	59994.	11120.

Sample Name: CCB15      Acquired: 10/28/2014 18:11:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00207	.00012	.00107	.00004	-.00003
Stddev	.00013	.00249	.00043	.00047	.00009	.00010
%RSD	1533.5	120.24	347.09	43.941	234.24	356.51

#1	.00002	-.00001	.00009	.00084	.00010	-.00002
#2	-.00012	.00483	-.00029	.00161	.00007	.00007
#3	.00013	.00139	.00057	.00076	-.00006	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01176	.00001	.00018	-.00001	.00078	.00137
Stddev	.00141	.00010	.00004	.00019	.00035	.00087
%RSD	12.019	737.21	23.832	1537.9	44.861	63.666

#1	-.01013	-.00001	.00019	-.00000	.00066	.00231
#2	-.01254	-.00007	.00022	-.00021	.00051	.00122
#3	-.01261	.00012	.00013	.00017	.00118	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB15      Acquired: 10/28/2014 18:11:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03761	-.00110	.00914	.00001	.00141	.01314
Stddev	.03342	.00066	.01883	.00001	.00041	.00219
%RSD	88.876	60.316	206.06	95.486	29.148	16.666

#1	.06522	-.00167	-.01251	.00002	.00182	.01292
#2	.00045	-.00126	.02176	-.00000	.00141	.01542
#3	.04714	-.00037	.01816	.00002	.00100	.01106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00060	-.00010	-.00200	-.00141	.00033
Stddev	.00028	.00096	.00114	.00217	.00149	.00025
%RSD	624.23	160.04	1187.9	108.36	105.84	77.501

#1	.00019	-.00019	-.00021	.00047	-.00269	.00014
#2	-.00028	.00032	-.00118	-.00358	.00023	.00022
#3	.00022	.00167	.00110	-.00291	-.00176	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB15      Acquired: 10/28/2014 18:11:46      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00331	.00005	.00101	.00097	-.00025
Stddev	.00183	.00008	.00109	.00243	.00012
%RSD	55.269	159.03	107.47	251.57	48.983

#1	.00154	.00015	.00077	-.00075	-.00038
#2	.00519	-.00001	.00006	.00375	-.00015
#3	.00320	.00002	.00220	-.00010	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2893.7	4531.6	66513.	11555.
Stddev	26.5	40.4	793.	64.
%RSD	.91727	.89090	1.1925	.55249

#1	2901.3	4544.4	66764.	11502.
#2	2864.2	4486.4	67151.	11626.
#3	2915.6	4564.0	65625.	11537.



Sample Name: MB 180-121962/1-A      Acquired: 10/28/2014 18:16:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00002</b>	<b>.03394</b>	<b>.00310</b>	<b>.00370</b>	<b>.00044</b>	<b>.00001</b>
Stddev	.00012	.00689	.00089	.00004	.00006	.00002
%RSD	731.79	20.311	28.742	1.0385	12.966	163.32

#1	<b>-.00009</b>	<b>.03282</b>	<b>.00409</b>	<b>.00367</b>	<b>.00050</b>	<b>-.00000</b>
#2	<b>.00012</b>	<b>.04133</b>	<b>.00236</b>	<b>.00368</b>	<b>.00038</b>	<b>.00003</b>
#3	<b>-.00008</b>	<b>.02768</b>	<b>.00284</b>	<b>.00374</b>	<b>.00044</b>	<b>.00000</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.15894</b>	<b>-.00015</b>	<b>.00024</b>	<b>.00087</b>	<b>.00491</b>	<b>.03597</b>
Stddev	.00100	.00001	.00014	.00029	.00032	.00072
%RSD	.63116	7.6299	59.189	33.833	6.4605	1.9910

#1	<b>.15882</b>	<b>-.00016</b>	<b>.00023</b>	<b>.00076</b>	<b>.00475</b>	<b>.03597</b>
#2	<b>.15801</b>	<b>-.00014</b>	<b>.00011</b>	<b>.00121</b>	<b>.00527</b>	<b>.03669</b>
#3	<b>.16000</b>	<b>-.00015</b>	<b>.00039</b>	<b>.00065</b>	<b>.00470</b>	<b>.03525</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-121962/1-A      Acquired: 10/28/2014 18:16:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.01255</b>	<b>-.00143</b>	<b>.00377</b>	<b>.01494</b>	<b>.00008</b>	<b>.02594</b>
Stddev	.01384	.00058	.00789	.00010	.00004	.00242
%RSD	110.26	40.265	209.34	.67723	47.661	9.3327

#1	<b>-.02095</b>	<b>-.00191</b>	<b>.00058</b>	<b>.01503</b>	<b>.00012</b>	<b>.02426</b>
#2	<b>.00342</b>	<b>-.00079</b>	<b>-.00203</b>	<b>.01483</b>	<b>.00004</b>	<b>.02485</b>
#3	<b>-.02014</b>	<b>-.00160</b>	<b>.01276</b>	<b>.01496</b>	<b>.00009</b>	<b>.02872</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00106</b>	<b>.00144</b>	<b>.00150</b>	<b>-.00030</b>	<b>.03770</b>	<b>-.00001</b>
Stddev	.00040	.00045	.00136	.00205	.00254	.00069
%RSD	38.134	31.443	90.724	688.08	6.7325	10255.

#1	<b>.00142</b>	<b>.00171</b>	<b>.00037</b>	<b>.00042</b>	<b>.03991</b>	<b>-.00022</b>
#2	<b>.00113</b>	<b>.00092</b>	<b>.00113</b>	<b>.00130</b>	<b>.03827</b>	<b>-.00057</b>
#3	<b>.00062</b>	<b>.00170</b>	<b>.00302</b>	<b>-.00262</b>	<b>.03493</b>	<b>.00077</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-121962/1-A      Acquired: 10/28/2014 18:16:57      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00706	.00115	.00203	.00042	.03423
Stddev	.00194	.00015	.00102	.00038	.00044
%RSD	27.456	12.918	50.491	90.779	1.2949

#1	.00584	.00107	.00225	.00020	.03459
#2	.00930	.00105	.00292	.00085	.03437
#3	.00605	.00132	.00091	.00020	.03374

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3004.4	4678.7	66871.	11610.
Stddev	5.0	4.9	586.	46.
%RSD	.16782	.10397	.87592	.39486

#1	2998.6	4673.2	67504.	11559.
#2	3007.3	4682.5	66761.	11646.
#3	3007.3	4680.4	66348.	11626.

Sample Name: LCS 180-121962/2-A      Acquired: 10/28/2014 18:22:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04331	1.9423	.50042	1.0645	1.9415	.04802
Stddev	.00025	.0225	.00043	.0004	.0040	.00022
%RSD	.57181	1.1603	.08670	.03386	.20348	.45683

#1	.04338	1.9656	.49994	1.0649	1.9388	.04789
#2	.04352	1.9206	.50078	1.0642	1.9397	.04789
#3	.04304	1.9405	.50055	1.0644	1.9461	.04827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .17532	.05102	.47671	.20093	.24831	1.0319
Stddev	.00347	.00028	.00059	.00053	.00015	.0093
%RSD	1.9809	.55431	.12412	.26566	.05882	.90001

#1	.17622	.05133	.47732	.20125	.24847	1.0347
#2	.17148	.05077	.47666	.20031	.24825	1.0215
#3	.17825	.05097	.47614	.20122	.24819	1.0394

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	60.000					
Low Limit	40.000					

Sample Name: LCS 180-121962/2-A      Acquired: 10/28/2014 18:22:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F <b>-.04880</b>	<b>.98832</b>	F <b>.01438</b>	<b>.49287</b>	F <b>-.00037</b>	F <b>.02975</b>
Stddev	.01423	.00131	.01042	.00245	.00022	.00247
%RSD	29.166	.13239	72.446	.49694	60.393	8.3167

#1	<b>-.05791</b>	<b>.98714</b>	<b>.02190</b>	<b>.49519</b>	<b>-.00011</b>	<b>.03128</b>
#2	<b>-.03240</b>	<b>.98809</b>	<b>.00249</b>	<b>.49031</b>	<b>-.00048</b>	<b>.03107</b>
#3	<b>-.05609</b>	<b>.98973</b>	<b>.01876</b>	<b>.49312</b>	<b>-.00051</b>	<b>.02689</b>

Check ?	<b>Chk Fail</b>	<b>Chk Pass</b>	<b>Chk Fail</b>	<b>Chk Pass</b>	<b>Chk Fail</b>	<b>Chk Fail</b>
High Limit	<b>60.000</b>		<b>60.000</b>		<b>1.2000</b>	<b>60.000</b>
Low Limit	<b>40.000</b>		<b>40.000</b>		<b>.80000</b>	<b>40.000</b>

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.47728</b>	<b>.47721</b>	F <b>.00054</b>	<b>.54807</b>	F <b>.03236</b>	F <b>.00038</b>
Stddev	.00117	.00123	.00071	.00129	.00459	.00027
%RSD	.24432	.25719	129.99	.23586	14.194	70.451

#1	<b>.47843</b>	<b>.47860</b>	<b>.00017</b>	<b>.54733</b>	<b>.02791</b>	<b>.00027</b>
#2	<b>.47609</b>	<b>.47670</b>	<b>.00136</b>	<b>.54956</b>	<b>.03208</b>	<b>.00019</b>
#3	<b>.47731</b>	<b>.47631</b>	<b>.00010</b>	<b>.54732</b>	<b>.03709</b>	<b>.00069</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Fail</b>	<b>Chk Pass</b>	<b>Chk Fail</b>	<b>Chk Fail</b>
High Limit			<b>.60000</b>		<b>12.000</b>	<b>2.4000</b>
Low Limit			<b>.40000</b>		<b>8.0000</b>	<b>1.6000</b>

Sample Name: LCS 180-121962/2-A      Acquired: 10/28/2014 18:22:07      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.92996	F .00038	F .06465	.50191	.54262
Stddev	.00893	.00002	.00039	.00247	.00146
%RSD	.95983	4.9655	.60637	.49133	.26962

#1	.91965	.00036	.06498	.49907	.54414
#2	.93512	.00039	.06475	.50348	.54249
#3	.93511	.00040	.06422	.50319	.54122

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit		1.2000	.60000		
Low Limit		.80000	.40000		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2926.8	4640.6	65773.	11734.
Stddev	1.2	3.2	310.	64.
%RSD	.04033	.06833	.47126	.54250

#1	2927.5	4643.0	65417.	11665.
#2	2927.4	4637.0	65917.	11790.
#3	2925.4	4641.8	65984.	11746.

Sample Name: 180-37750-B-1-A      Acquired: 10/28/2014 18:27:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	11.551	.01811	.05183	.10176	.00183
Stddev	.00018	.050	.00127	.00049	.00014	.00006
%RSD	17.122	.42917	6.9964	.94753	.14154	3.1390

#1	.00084	11.553	.01812	.05239	.10189	.00189
#2	.00119	11.501	.01683	.05151	.10160	.00178
#3	.00108	11.600	.01937	.05158	.10177	.00181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.968	.02534	.02620	.88683	.19292	76.435
Stddev	.082	.00016	.00009	.00263	.00018	.185
%RSD	.25758	.63828	.33465	.29674	.09165	.24195

#1	31.971	.02516	.02616	.88636	.19277	76.360
#2	31.884	.02540	.02613	.88966	.19311	76.300
#3	32.048	.02546	.02630	.88446	.19286	76.646

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-1-A      Acquired: 10/28/2014 18:27:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9840</b>	<b>.01349</b>	<b>9.2015</b>	<b>1.1086</b>	<b>-.00010</b>	<b>40.270</b>
Stddev	.0289	.00032	.0590	.0061	.00016	.050
%RSD	.96697	2.4057	.64161	.55125	164.72	.12446

#1	<b>3.0171</b>	<b>.01316</b>	<b>9.1346</b>	<b>1.1097</b>	<b>-.00029</b>	<b>40.316</b>
#2	<b>2.9704</b>	<b>.01350</b>	<b>9.2237</b>	<b>1.1019</b>	<b>-.00004</b>	<b>40.217</b>
#3	<b>2.9644</b>	<b>.01381</b>	<b>9.2462</b>	<b>1.1140</b>	<b>.00002</b>	<b>40.277</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.05362</b>	<b>.28118</b>	<b>.00275</b>	<b>.00249</b>	<b>13.190</b>	<b>.41318</b>
Stddev	.00026	.00048	.00074	.00175	.049	.00227
%RSD	.48301	.17078	26.951	70.424	.37481	.55013

#1	<b>.05348</b>	<b>.28144</b>	<b>.00191</b>	<b>.00085</b>	<b>13.172</b>	<b>.41556</b>
#2	<b>.05346</b>	<b>.28147</b>	<b>.00304</b>	<b>.00227</b>	<b>13.153</b>	<b>.41295</b>
#3	<b>.05392</b>	<b>.28062</b>	<b>.00331</b>	<b>.00433</b>	<b>13.246</b>	<b>.41104</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						



Sample Name: 180-37750-B-1-A      Acquired: 10/28/2014 18:27:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.23497</b>	<b>.34450</b>	<b>.00194</b>	<b>.17592</b>	<b>3.5764</b>
Stddev	.00491	.00113	.00091	.00099	.0055
%RSD	2.0894	.32836	46.639	.56015	.15249

#1	<b>.24058</b>	<b>.34419</b>	<b>.00273</b>	<b>.17480</b>	<b>3.5757</b>
#2	<b>.23286</b>	<b>.34355</b>	<b>.00095</b>	<b>.17667</b>	<b>3.5821</b>
#3	<b>.23146</b>	<b>.34575</b>	<b>.00214</b>	<b>.17627</b>	<b>3.5713</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2671.0</b>	<b>4615.1</b>	<b>65056.</b>	<b>11947.</b>
Stddev	5.6	5.2	151.	73.
%RSD	.20938	.11333	.23174	.61457

#1	2674.6	4617.2	65186.	11951.
#2	2673.7	4619.0	64891.	12017.
#3	2664.5	4609.2	65091.	11871.

Sample Name: 180-37750-B-2-A      Acquired: 10/28/2014 18:32:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00284	61.683	.01714	.12321	.41349	.00673
Stddev	.00004	.067	.00011	.00053	.00065	.00003
%RSD	1.3150	.10789	.65499	.42622	.15611	.44326

#1	.00288	61.723	.01718	.12347	.41284	.00676
#2	.00282	61.606	.01701	.12355	.41351	.00674
#3	.00282	61.721	.01722	.12260	.41413	.00670

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	56.753	.05253	.07200	3.2785	.53980	403.28
Stddev	.067	.00021	.00022	.0064	.00153	1.71
%RSD	.11741	.39791	.29960	.19506	.28400	.42327

#1	56.783	.05258	.07225	3.2837	.53884	401.49
#2	56.677	.05230	.07191	3.2804	.54157	404.89
#3	56.800	.05271	.07185	3.2714	.53900	403.46

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-2-A      Acquired: 10/28/2014 18:32:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.9314	.08769	34.069	2.5970	-.00214	81.424
Stddev	.0312	.00102	.063	.0035	.00017	.230
%RSD	.34936	1.1630	.18546	.13446	8.1640	.28189

#1	8.9523	.08865	34.045	2.5963	-.00214	81.282
#2	8.8955	.08662	34.140	2.6008	-.00197	81.302
#3	8.9464	.08781	34.021	2.5939	-.00232	81.689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20861	1.1698	.00414	.00437	14.559	1.4765
Stddev	.00069	.0022	.00048	.00206	.019	.0043
%RSD	.33027	.18844	11.592	47.129	.13256	.29073

#1	.20840	1.1722	.00372	.00239	14.568	1.4775
#2	.20805	1.1678	.00466	.00423	14.572	1.4718
#3	.20938	1.1693	.00405	.00650	14.537	1.4803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-2-A      Acquired: 10/28/2014 18:32:02      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.40977	1.3257	.00278	.70968	9.3503
Stddev	.00347	.0026	.00281	.00154	.0077
%RSD	.84785	.19773	101.35	.21689	.08195

#1	.41039	1.3247	.00364	.71051	9.3589
#2	.41289	1.3286	-.00037	.70791	9.3442
#3	.40603	1.3236	.00506	.71064	9.3478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2503.7	4700.5	66776.	12430.
Stddev	1.9	3.0	128.	10.
%RSD	.07683	.06278	.19146	.07800

#1	2503.8	4700.2	66661.	12427.
#2	2501.6	4703.7	66913.	12440.
#3	2505.5	4697.8	66753.	12421.

Sample Name: 180-37750-B-3-A      Acquired: 10/28/2014 18:37:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00646	67.542	.05210	.13062	.33337	.00772
Stddev	.00019	.385	.00332	.00288	.00144	.00002
%RSD	2.9490	.57046	6.3659	2.2020	.43075	.30743

#1	.00627	67.941	.05150	.12904	.33486	.00774
#2	.00665	67.171	.04913	.12887	.33200	.00770
#3	.00645	67.514	.05568	.13394	.33326	.00774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.745	.05762	.08612	4.9928	1.0574	448.87
Stddev	.223	.00109	.00144	.0039	.0041	1.91
%RSD	.48805	1.8964	1.6761	.07793	.38917	.42554

#1	45.998	.05697	.08535	4.9885	1.0620	449.35
#2	45.578	.05701	.08522	4.9941	1.0561	446.76
#3	45.658	.05888	.08778	4.9959	1.0541	450.49

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-3-A      Acquired: 10/28/2014 18:37:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.367	.09970	39.899	3.2077	.00272	90.608
Stddev	.038	.00092	.265	.0185	.00031	.424
%RSD	.36882	.92201	.66440	.57579	11.313	.46764

#1	10.410	.10074	40.100	3.2204	.00305	91.084
#2	10.353	.09936	39.598	3.1865	.00245	90.272
#3	10.337	.09900	39.999	3.2161	.00264	90.468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25929	1.4902	.00657	.00409	14.531	2.0854
Stddev	.00526	.0301	.00082	.00251	.080	.0394
%RSD	2.0271	2.0178	12.511	61.329	.54722	1.8895

#1	.25777	1.4829	.00707	.00416	14.618	2.0645
#2	.25497	1.4645	.00562	.00155	14.515	2.0607
#3	.26514	1.5233	.00702	.00657	14.461	2.1308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-3-A      Acquired: 10/28/2014 18:37:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.39774</b>	<b>1.7318</b>	<b>.00356</b>	<b>.80429</b>	<b>10.863</b>
Stddev	.00334	.0072	.00254	.00369	.225
%RSD	.83876	.41833	71.252	.45904	2.0674

#1	<b>.40122</b>	<b>1.7400</b>	<b>.00175</b>	<b>.80738</b>	<b>10.786</b>
#2	<b>.39457</b>	<b>1.7266</b>	<b>.00247</b>	<b>.80529</b>	<b>10.688</b>
#3	<b>.39742</b>	<b>1.7286</b>	<b>.00646</b>	<b>.80020</b>	<b>11.117</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2459.7</b>	<b>4673.8</b>	<b>67226.</b>	<b>12764.</b>
Stddev	45.0	86.2	36.	38.
%RSD	1.8313	1.8434	.05413	.29864

#1	<b>2482.8</b>	<b>4729.6</b>	<b>67212.</b>	<b>12737.</b>
#2	<b>2488.6</b>	<b>4717.3</b>	<b>67199.</b>	<b>12808.</b>
#3	<b>2407.8</b>	<b>4574.6</b>	<b>67267.</b>	<b>12748.</b>

Sample Name: 180-37750-D-4-A      Acquired: 10/28/2014 18:42:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	8.8545	.02035	.04773	.08168	.00136
Stddev	.00047	.0316	.00133	.00032	.00033	.00007
%RSD	77.620	.35745	6.5120	.67560	.40632	5.4379

#1	.00028	8.8220	.02185	.04804	.08135	.00129
#2	.00039	8.8562	.01987	.04776	.08168	.00144
#3	.00114	8.8852	.01934	.04739	.08202	.00137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.068	.02305	.02060	.71126	.13493	63.341
Stddev	.035	.00017	.00012	.00234	.00028	.184
%RSD	.15004	.73633	.56448	.32931	.20864	.29066

#1	23.076	.02316	.02072	.71353	.13524	63.518
#2	23.030	.02285	.02048	.71141	.13469	63.150
#3	23.098	.02313	.02059	.70885	.13486	63.355

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37750-D-4-A      Acquired: 10/28/2014 18:42:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.7256</b>	<b>.00960</b>	<b>8.4307</b>	<b>.91322</b>	<b>.00013</b>	<b>41.907</b>
Stddev	.0503	.00106	.0419	.00341	.00009	.121
%RSD	1.8453	11.085	.49671	.37342	70.394	.28815

#1	<b>2.6705</b>	<b>.01002</b>	<b>8.4522</b>	<b>.91677</b>	<b>.00004</b>	<b>41.772</b>
#2	<b>2.7690</b>	<b>.01040</b>	<b>8.3825</b>	<b>.91292</b>	<b>.00023</b>	<b>41.944</b>
#3	<b>2.7375</b>	<b>.00839</b>	<b>8.4575</b>	<b>.90997</b>	<b>.00012</b>	<b>42.005</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04825</b>	<b>.21932</b>	<b>.00546</b>	<b>.00105</b>	<b>10.825</b>	<b>.36195</b>
Stddev	.00066	.00182	.00129	.00099	.048	.00151
%RSD	1.3644	.82957	23.638	94.291	.44114	.41696

#1	<b>.04789</b>	<b>.21792</b>	<b>.00668</b>	<b>.00199</b>	<b>10.787</b>	<b>.36069</b>
#2	<b>.04785</b>	<b>.21866</b>	<b>.00411</b>	<b>.00114</b>	<b>10.810</b>	<b>.36153</b>
#3	<b>.04901</b>	<b>.22138</b>	<b>.00560</b>	<b>.00002</b>	<b>10.879</b>	<b>.36362</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-D-4-A      Acquired: 10/28/2014 18:42:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19700	.33532	.00228	.13603	2.9638
Stddev	.00257	.00135	.00061	.00158	.0163
%RSD	1.3029	.40310	26.957	1.1644	.54864

#1	.19560	.33686	.00289	.13695	2.9566
#2	.19544	.33477	.00166	.13693	2.9523
#3	.19996	.33434	.00229	.13420	2.9824

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2679.6	4573.0	65040.	11766.
Stddev	15.5	26.3	186.	49.
%RSD	.57700	.57556	.28566	.41818

#1	2683.1	4575.3	64841.	11709.
#2	2693.0	4598.1	65070.	11792.
#3	2662.6	4545.6	65209.	11797.

Sample Name: 180-37750-D-4-A SD@5      Acquired: 10/28/2014 18:47:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	1.7725	.00419	.00865	.01654	.00027
Stddev	.00015	.0123	.00161	.00038	.00033	.00005
%RSD	383.44	.69484	38.538	4.4278	1.9901	18.947

#1	.00018	1.7830	.00395	.00825	.01677	.00033
#2	-.00012	1.7590	.00270	.00901	.01617	.00024
#3	.00006	1.7757	.00590	.00871	.01669	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6839	.00448	.00398	.14414	.02869	12.818
Stddev	.0090	.00018	.00022	.00056	.00019	.011
%RSD	.19187	4.0659	5.6464	.39146	.66727	.08459

#1	4.6911	.00450	.00423	.14423	.02847	12.807
#2	4.6738	.00465	.00394	.14465	.02881	12.829
#3	4.6867	.00429	.00379	.14353	.02879	12.818

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-D-4-A SD@5      Acquired: 10/28/2014 18:47:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.51194</b>	<b>.00100</b>	<b>1.6920</b>	<b>.18980</b>	<b>-.00051</b>	<b>8.5268</b>
Stddev	.02176	.00012	.0256	.00061	.00013	.0340
%RSD	4.2513	11.671	1.5135	.32164	25.323	.39879

#1	.49018	.00093	1.6675	.19005	-.00037	8.5578
#2	.51193	.00093	1.7186	.18911	-.00052	8.4904
#3	.53371	.00113	1.6899	.19026	-.00063	8.5323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00898</b>	<b>.04306</b>	<b>.00068</b>	<b>-.00109</b>	<b>2.1902</b>	<b>.07250</b>
Stddev	.00033	.00028	.00091	.00055	.0080	.00039
%RSD	3.7250	.65256	132.74	50.362	.36591	.53431

#1	.00879	.04337	.00110	-.00143	2.1922	.07237
#2	.00937	.04283	.00131	-.00046	2.1814	.07294
#3	.00878	.04298	-.00036	-.00139	2.1970	.07219

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-D-4-A SD@5      Acquired: 10/28/2014 18:47:15      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04095	.07021	.00046	.02781	.58558
Stddev	.00297	.00033	.00027	.00115	.00289
%RSD	7.2634	.47393	59.272	4.1383	.49303

#1	.04428	.07028	.00067	.02883	.58880
#2	.03855	.06984	.00057	.02804	.58475
#3	.04001	.07050	.00015	.02657	.58320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2826.4	4564.3	65068.	11555.
Stddev	7.4	14.8	73.	47.
%RSD	.26312	.32497	.11160	.40262

#1	2821.0	4556.5	65012.	11557.
#2	2823.3	4555.1	65043.	11600.
#3	2834.9	4581.4	65150.	11507.

Sample Name: 180-37750-B-4-A MS      Acquired: 10/28/2014 18:52:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04074	6.0364	.47454	1.0760	1.9181	.04768
Stddev	.00030	.0092	.00420	.0049	.0082	.00022
%RSD	.73992	.15177	.88606	.45634	.42966	.45975

#1	.04102	6.0468	.46968	1.0706	1.9103	.04745
#2	.04042	6.0293	.47706	1.0773	1.9173	.04772
#3	.04078	6.0332	.47686	1.0801	1.9267	.04788

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.715	.05989	.48829	.52246	.31299	29.543
Stddev	.016	.00022	.00063	.00192	.00093	.053
%RSD	.08394	.37378	.12944	.36751	.29813	.17809

#1	18.697	.05964	.48765	.52454	.31399	29.491
#2	18.726	.06007	.48832	.52208	.31215	29.541
#3	18.722	.05995	.48891	.52076	.31282	29.596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-4-A MS      Acquired: 10/28/2014 18:52:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.7772</b>	<b>.95903</b>	<b>4.6024</b>	<b>.98258</b>	<b>-.00003</b>	<b>24.244</b>
Stddev	.0124	.00338	.0140	.00266	.00015	.061
%RSD	.69924	.35295	.30396	.27042	491.26	.25161

#1	1.7649	.95634	4.6149	.98547	.00009	24.194
#2	1.7768	.95791	4.6050	.98025	.00002	24.226
#3	1.7898	.96283	4.5873	.98202	-.00019	24.312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.50779</b>	<b>.59295</b>	<b>.00274</b>	<b>.42619</b>	<b>6.2868</b>	<b>.15209</b>
Stddev	.00057	.00143	.00045	.00258	.0070	.00069
%RSD	.11208	.24093	16.404	.60517	.11218	.45465

#1	.50786	.59132	.00234	.42371	6.2787	.15202
#2	.50719	.59401	.00266	.42886	6.2915	.15281
#3	.50832	.59350	.00323	.42601	6.2902	.15144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-4-A MS      Acquired: 10/28/2014 18:52:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0160	.14281	.27494	.55561	2.0549
Stddev	.0031	.00096	.00170	.00261	.0017
%RSD	.30504	.67147	.61822	.47022	.08348

#1	1.0187	.14387	.27304	.55514	2.0563
#2	1.0126	.14199	.27632	.55842	2.0554
#3	1.0167	.14258	.27546	.55326	2.0530

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.7	4588.5	65084.	11754.
Stddev	11.5	17.0	71.	24.
%RSD	.42011	.37037	.10860	.19996

#1	2758.1	4605.9	65149.	11728.
#2	2749.7	4587.7	65009.	11762.
#3	2735.3	4571.9	65096.	11773.



Sample Name: 180-37750-B-4-B MSD      Acquired: 10/28/2014 18:57:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04064	8.5918	.45692	1.0526	1.9007	.04736
Stddev	.00039	.0342	.00328	.0014	.0121	.00038
%RSD	.94882	.39744	.71861	.13469	.63698	.80204

#1	.04040	8.5705	.46064	1.0540	1.8956	.04708
#2	.04044	8.6312	.45442	1.0512	1.9145	.04779
#3	.04109	8.5738	.45570	1.0527	1.8919	.04721

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.431	.06783	.49175	.73023	.34174	48.870
Stddev	.089	.00019	.00270	.00510	.00100	.193
%RSD	.38074	.28460	.54921	.69863	.29149	.39528

#1	23.442	.06805	.49484	.73097	.34164	48.794
#2	23.514	.06775	.48987	.72480	.34080	49.089
#3	23.337	.06769	.49054	.73493	.34278	48.726

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-4-B MSD      Acquired: 10/28/2014 18:57:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0709</b>	<b>.94875</b>	<b>6.0877</b>	<b>1.2257</b>	<b>-.00017</b>	<b>27.718</b>
Stddev	.0244	.00492	.0390	.0041	.00020	.120
%RSD	1.1792	.51820	.64094	.33214	117.71	.43171

#1	2.0991	.94707	6.0539	1.2281	-.00028	27.703
#2	2.0575	.95429	6.1304	1.2279	.00006	27.844
#3	2.0562	.94490	6.0787	1.2210	-.00029	27.606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.51038</b>	<b>.66107</b>	<b>.00173</b>	<b>.38015</b>	<b>9.0276</b>	<b>.25110</b>
Stddev	.00359	.00173	.00096	.00115	.0470	.00199
%RSD	.70246	.26165	55.201	.30284	.52088	.79148

#1	.51442	.66252	.00090	.38095	9.0354	.25335
#2	.50757	.66153	.00278	.37883	9.0702	.25036
#3	.50914	.65916	.00152	.38066	8.9772	.24958

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-4-B MSD      Acquired: 10/28/2014 18:57:12      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0254	.22160	.33580	.59978	3.0065
Stddev	.0029	.00021	.00215	.00413	.0165
%RSD	.28372	.09628	.63961	.68821	.54789

#1	1.0240	.22184	.33765	.59515	3.0255
#2	1.0287	.22142	.33344	.60113	2.9965
#3	1.0235	.22156	.33630	.60307	2.9974

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2712.7	4594.9	64315.	11850.
Stddev	10.4	12.9	556.	25.
%RSD	.38195	.28162	.86525	.21126

#1	2700.8	4580.4	64402.	11832.
#2	2719.8	4605.3	64822.	11840.
#3	2717.5	4599.0	63719.	11878.

Sample Name: 180-37750-D-5-A      Acquired: 10/28/2014 19:02:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00664	65.819	.05285	.14031	.35596	.00798
Stddev	.00054	.740	.00190	.00146	.00341	.00005
%RSD	8.2016	1.1249	3.5954	1.0419	.95815	.59378

#1	.00726	66.084	.05250	.14166	.35604	.00798
#2	.00639	64.983	.05490	.14050	.35252	.00793
#3	.00626	66.391	.05115	.13876	.35934	.00803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.179	.07920	.09186	5.5391	1.0706	F 546.14
Stddev	.409	.00065	.00107	.0478	.0151	8.47
%RSD	1.3540	.82458	1.1671	.86265	1.4139	1.5517

#1	30.424	.07982	.09294	5.5928	1.0807	553.49
#2	29.708	.07928	.09185	5.5233	1.0532	536.87
#3	30.406	.07852	.09079	5.5013	1.0779	548.05

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500.00
Low Limit						-.10000

Sample Name: 180-37750-D-5-A      Acquired: 10/28/2014 19:02:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.341	.09223	41.080	3.4495	.00285	94.179
Stddev	.119	.00043	.524	.0631	.00045	.986
%RSD	1.1473	.46477	1.2750	1.8281	15.799	1.0474

#1	10.384	.09224	41.374	3.5074	.00286	94.555
#2	10.207	.09179	40.475	3.3823	.00329	93.060
#3	10.432	.09265	41.390	3.4587	.00239	94.922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28468	1.6704	.00646	.00370	13.483	2.5474
Stddev	.00254	.0111	.00139	.00187	.184	.0179
%RSD	.89266	.66229	21.537	50.444	1.3669	.70358

#1	.28560	1.6760	.00752	.00577	13.579	2.5602
#2	.28664	1.6776	.00489	.00318	13.270	2.5551
#3	.28181	1.6577	.00698	.00215	13.599	2.5269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-D-5-A      Acquired: 10/28/2014 19:02:03      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.35865</b>	<b>1.8197</b>	<b>.00540</b>	<b>.91741</b>	<b>13.299</b>
Stddev	.00540	.0267	.00015	.00882	.113
%RSD	1.5049	1.4689	2.7931	.96122	.85012

#1	<b>.36437</b>	<b>1.8386</b>	<b>.00557</b>	<b>.92755</b>	<b>13.401</b>
#2	<b>.35365</b>	<b>1.7891</b>	<b>.00532</b>	<b>.91323</b>	<b>13.320</b>
#3	<b>.35792</b>	<b>1.8314</b>	<b>.00531</b>	<b>.91146</b>	<b>13.178</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2494.2</b>	<b>4729.0</b>	<b>66797.</b>	<b>12823.</b>
Stddev	12.0	20.0	600.	182.
%RSD	.47930	.42240	.89825	1.4156

#1	2486.1	4713.5	66120.	12703.
#2	2488.6	4721.9	67008.	13031.
#3	2508.0	4751.5	67263.	12734.

Sample Name: CCV 1369837      Acquired: 10/28/2014 19:07:13      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0452	25.112	.52171	2.0844	2.0182	1.9854
Stddev	.0054	.137	.00283	.0070	.0105	.0096
%RSD	.51732	.54561	.54323	.33516	.51964	.48464

#1	1.0392	25.170	.51862	2.0763	2.0283	1.9947
#2	1.0469	24.956	.52418	2.0886	2.0074	1.9755
#3	1.0496	25.211	.52234	2.0883	2.0191	1.9858

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.843	.51546	2.0865	2.0254	1.8844	25.729
Stddev	.160	.00181	.0066	.0096	.0128	.088
%RSD	.32152	.35204	.31863	.47483	.67739	.34269

#1	49.985	.51338	2.0790	2.0163	1.8865	25.768
#2	49.669	.51670	2.0888	2.0355	1.8708	25.628
#3	49.876	.51630	2.0917	2.0246	1.8961	25.790

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 19:07:13      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.47	2.0336	49.285	1.8439	1.9593	129.52
Stddev	.43	.0092	.186	.0057	.0071	.63
%RSD	.34034	.45421	.37764	.30912	.36187	.48847

#1	126.85	2.0427	49.438	1.8396	1.9513	130.10
#2	126.00	2.0242	49.078	1.8417	1.9616	128.85
#3	126.58	2.0340	49.341	1.8504	1.9649	129.61

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0549	.50019	.51180	.51510	F 2.2273	1.8914
Stddev	.0064	.00308	.00188	.00618	.0115	.0062
%RSD	.31253	.61562	.36803	1.2005	.51392	.32548

#1	2.0477	.49754	.50968	.50806	2.2405	1.8844
#2	2.0570	.49947	.51327	.51964	2.2206	1.8935
#3	2.0600	.50357	.51246	.51761	2.2208	1.8962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value					2.0000	
Range					10.000%	



Sample Name: CCV 1369837      Acquired: 10/28/2014 19:07:13      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9174	1.9070	.95842	2.1958	1.9665
Stddev	.0173	.0081	.00602	.0104	.0102
%RSD	.90164	.42346	.62804	.47269	.52017

#1	1.9371	1.9127	.95147	2.1860	1.9555
#2	1.9045	1.8977	.96201	2.2067	1.9684
#3	1.9106	1.9104	.96177	2.1947	1.9757

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2368.9	4269.2	59704.	11207.
Stddev	5.4	8.5	147.	35.
%RSD	.22682	.19873	.24690	.31071

#1	2375.0	4278.9	59871.	11184.
#2	2365.0	4262.9	59595.	11247.
#3	2366.7	4265.8	59644.	11190.

Sample Name: CCB16      Acquired: 10/28/2014 19:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00677	-.00051	.00076	.00007	.00008
Stddev	.00027	.00482	.00178	.00004	.00015	.00002
%RSD	4753.8	71.289	350.18	5.6360	206.43	27.360

#1	-.00032	.00194	.00150	.00081	.00019	.00008
#2	.00014	.01159	-.00190	.00075	.00012	.00010
#3	.00016	.00677	-.00112	.00072	-.00009	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00747	.00004	-.00003	.00013	.00103	.00134
Stddev	.00356	.00007	.00010	.00018	.00014	.00085
%RSD	47.682	193.02	365.45	144.75	13.390	63.372

#1	-.01132	-.00003	-.00013	.00033	.00089	.00226
#2	-.00680	.00003	-.00001	.00005	.00105	.00117
#3	-.00429	.00011	.00006	-.00001	.00116	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB16      Acquired: 10/28/2014 19:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00529	.00039	.00969	.00002	.00081	.00931
Stddev	.00232	.00056	.01753	.00003	.00025	.01050
%RSD	43.796	145.35	180.86	129.51	31.156	112.87

#1	.00774	.00031	-.00399	.00001	.00107	.02099
#2	.00501	-.00013	.02946	.00000	.00079	.00627
#3	.00313	.00098	.00361	.00006	.00057	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00036	.00008	.00256	.03167	-.00021
Stddev	.00041	.00091	.00125	.00163	.00668	.00021
%RSD	166.53	255.72	1595.0	63.942	21.077	101.72

#1	-.00019	.00092	.00031	.00313	.03938	-.00045
#2	.00030	-.00070	-.00127	.00383	.02803	-.00008
#3	.00063	.00085	.00120	.00071	.02761	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB16      Acquired: 10/28/2014 19:11:59      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.00014	-.00018	-.00032	-.00013
Stddev	.00528	.00009	.00038	.00091	.00017
%RSD	521.91	61.887	207.53	287.58	130.44

#1	-.00214	.00024	-.00044	-.00066	-.00028
#2	.00711	.00008	-.00037	.00071	-.00017
#3	-.00193	.00010	.00026	-.00100	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2903.9	4541.4	65309.	11501.
Stddev	2.3	4.9	160.	70.
%RSD	.07763	.10736	.24531	.60714

#1	2903.0	4537.5	65494.	11459.
#2	2902.3	4539.9	65221.	11581.
#3	2906.5	4546.8	65212.	11462.

Sample Name: 180-37750-B-6-A      Acquired: 10/28/2014 19:17:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00656	71.954	.03570	.13487	.36282	.00815
Stddev	.00043	.276	.00359	.00064	.00068	.00006
%RSD	6.6285	.38362	10.045	.47586	.18775	.79355

#1	.00627	72.220	.03821	.13448	.36358	.00812
#2	.00706	71.974	.03159	.13451	.36264	.00822
#3	.00634	71.669	.03731	.13561	.36226	.00810

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.785	.07718	.09205	5.5521	1.0374	F 565.48
Stddev	.063	.00033	.00025	.0136	.0056	1.49
%RSD	.22831	.42932	.27288	.24557	.53876	.26335

#1	27.794	.07686	.09176	5.5395	1.0418	566.82
#2	27.843	.07715	.09217	5.5502	1.0393	563.88
#3	27.717	.07752	.09221	5.5666	1.0311	565.74

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500.00
Low Limit						-.10000

Sample Name: 180-37750-B-6-A      Acquired: 10/28/2014 19:17:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.631</b>	<b>.10268</b>	<b>42.274</b>	<b>3.6271</b>	<b>-.00042</b>	<b>93.444</b>
Stddev	.026	.00101	.119	.0410	.00024	.120
%RSD	.24752	.97885	.28106	1.1307	56.442	.12804
#1	10.645	.10169	42.291	3.6221	-.00043	93.531
#2	10.648	.10370	42.383	3.6704	-.00018	93.493
#3	10.601	.10265	42.148	3.5888	-.00065	93.307

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.29949</b>	<b>1.6293</b>	<b>.00999</b>	<b>.00712</b>	<b>11.481</b>	<b>2.4791</b>
Stddev	.00096	.0046	.00099	.00104	.029	.0034
%RSD	.32097	.28009	9.8843	14.668	.24999	.13605
#1	.29935	1.6317	.01005	.00597	11.511	2.4787
#2	.29860	1.6321	.00898	.00739	11.478	2.4759
#3	.30051	1.6240	.01095	.00801	11.454	2.4826

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-6-A      Acquired: 10/28/2014 19:17:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.34214</b>	<b>1.8588</b>	<b>.00341</b>	<b>.90526</b>	<b>13.145</b>
Stddev	.00630	.0109	.00067	.00338	.041
%RSD	1.8409	.58534	19.728	.37311	.30956

#1	.34428	1.8633	.00298	.90144	13.191
#2	.34708	1.8667	.00418	.90645	13.130
#3	.33505	1.8464	.00306	.90788	13.114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2507.9</b>	<b>4753.8</b>	<b>67651.</b>	<b>12663.</b>
Stddev	4.5	17.7	114.	49.
%RSD	.18084	.37332	.16886	.38866

#1	2511.4	4766.6	67757.	12645.
#2	2509.5	4761.3	67665.	12625.
#3	2502.8	4733.6	67530.	12719.

Sample Name: 180-37750-B-7-A      Acquired: 10/28/2014 19:22:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	9.8347	.01906	.05240	.07359	.00138
Stddev	.00022	.0102	.00185	.00068	.00010	.00002
%RSD	122.67	.10370	9.6920	1.2962	.13459	1.2895

#1	.00005	9.8442	.01855	.05254	.07348	.00137
#2	.00044	9.8361	.02111	.05299	.07362	.00140
#3	.00005	9.8239	.01753	.05165	.07367	.00138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.231	.01770	.02031	.56489	.11608	62.208
Stddev	.165	.00012	.00015	.00091	.00037	.175
%RSD	.24249	.68478	.74773	.16069	.32251	.28170

#1	68.404	.01758	.02017	.56547	.11639	62.406
#2	68.213	.01771	.02030	.56535	.11618	62.147
#3	68.075	.01782	.02047	.56384	.11566	62.072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37750-B-7-A      Acquired: 10/28/2014 19:22:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.8435</b>	<b>.01212</b>	<b>9.4800</b>	<b>1.3391</b>	<b>.00005</b>	<b>41.253</b>
Stddev	.0384	.00041	.0590	.0064	.00016	.082
%RSD	1.3499	3.3532	.62203	.47648	343.53	.19766

#1	<b>2.8852</b>	<b>.01259</b>	<b>9.5269</b>	<b>1.3461</b>	<b>-.00013</b>	<b>41.347</b>
#2	<b>2.8097</b>	<b>.01190</b>	<b>9.4138</b>	<b>1.3374</b>	<b>.00019</b>	<b>41.205</b>
#3	<b>2.8357</b>	<b>.01187</b>	<b>9.4992</b>	<b>1.3337</b>	<b>.00009</b>	<b>41.207</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04233</b>	<b>.19802</b>	<b>.00188</b>	<b>.00056</b>	<b>11.438</b>	<b>.27491</b>
Stddev	.00029	.00048	.00042	.00250	.049	.00051
%RSD	.68948	.24424	22.064	449.01	.43096	.18675

#1	<b>.04266</b>	<b>.19749</b>	<b>.00227</b>	<b>-.00174</b>	<b>11.494</b>	<b>.27509</b>
#2	<b>.04210</b>	<b>.19813</b>	<b>.00144</b>	<b>.00019</b>	<b>11.419</b>	<b>.27531</b>
#3	<b>.04223</b>	<b>.19844</b>	<b>.00194</b>	<b>.00322</b>	<b>11.401</b>	<b>.27433</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37750-B-7-A      Acquired: 10/28/2014 19:22:20      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.45287</b>	<b>.32448</b>	<b>.00144</b>	<b>.12620</b>	<b>2.4398</b>
Stddev	.00427	.00092	.00057	.00084	.0077
%RSD	.94238	.28404	39.420	.66219	.31473

#1	.45426	.32552	.00202	.12647	2.4432
#2	.44809	.32378	.00141	.12686	2.4453
#3	.45628	.32415	.00089	.12526	2.4311

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2622.9</b>	<b>4544.3</b>	<b>64292.</b>	<b>11739.</b>
Stddev	3.0	14.1	169.	25.
%RSD	.11441	.30997	.26340	.21308

#1	2626.4	4559.6	64404.	11712.
#2	2621.0	4541.3	64098.	11744.
#3	2621.3	4531.9	64376.	11761.

Sample Name: 180-37750-B-8-A      Acquired: 10/28/2014 19:27:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00249	39.180	.04193	.12489	.30675	.00524
Stddev	.00011	.033	.00259	.00072	.00033	.00003
%RSD	4.2285	.08341	6.1668	.57997	.10868	.62967

#1	.00246	39.156	.04480	.12445	.30681	.00526
#2	.00241	39.217	.04121	.12573	.30638	.00525
#3	.00261	39.166	.03978	.12449	.30704	.00520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 698.92	.06644	.06787	2.3788	.54263	287.98
Stddev	1.32	.00023	.00053	.0083	.00366	2.37
%RSD	.18950	.34603	.77499	.35107	.67465	.82422

#1	700.42	.06670	.06838	2.3741	.54135	286.07
#2	698.44	.06636	.06790	2.3739	.54675	290.64
#3	697.91	.06627	.06733	2.3885	.53977	287.24

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	600.00					
Low Limit	-5.0000					

Sample Name: 180-37750-B-8-A      Acquired: 10/28/2014 19:27:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>7.4880</b>	<b>.05934</b>	<b>25.074</b>	<b>4.2569</b>	<b>-.00089</b>	<b>70.540</b>
Stddev	.0649	.00017	.030	.0180	.00031	.074
%RSD	.86692	.28950	.12111	.42292	34.609	.10477

#1	7.4164	.05952	25.098	4.2487	-.00124	70.523
#2	7.5429	.05918	25.040	4.2775	-.00066	70.621
#3	7.5048	.05931	25.084	4.2444	-.00077	70.476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.17124</b>	<b>.87146</b>	<b>-.00510</b>	<b>.00679</b>	<b>16.459</b>	<b>1.1459</b>
Stddev	.00089	.00378	.00168	.00072	.042	.0018
%RSD	.51817	.43415	32.971	10.593	.25400	.15573

#1	.17225	.87546	-.00595	.00603	16.487	1.1465
#2	.17058	.87099	-.00619	.00745	16.480	1.1473
#3	.17089	.86793	-.00317	.00688	16.411	1.1439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-8-A      Acquired: 10/28/2014 19:27:22      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.5805</b>	<b>.96164</b>	<b>.00351</b>	<b>.58792</b>	<b>8.3324</b>
Stddev	.0067	.00346	.00016	.00456	.0066
%RSD	.18768	.35954	4.6053	.77479	.07929

#1	<b>3.5876</b>	<b>.96040</b>	<b>.00368</b>	<b>.59300</b>	<b>8.3333</b>
#2	<b>3.5797</b>	<b>.96555</b>	<b>.00350</b>	<b>.58656</b>	<b>8.3253</b>
#3	<b>3.5743</b>	<b>.95898</b>	<b>.00335</b>	<b>.58420</b>	<b>8.3385</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2217.4</b>	<b>4314.5</b>	<b>61333.</b>	<b>12004.</b>
Stddev	2.1	4.0	124.	48.
%RSD	.09629	.09238	.20249	.40337

#1	2215.3	4316.2	61459.	12031.
#2	2219.5	4309.9	61327.	11948.
#3	2217.6	4317.3	61211.	12034.

Sample Name: 180-37750-B-9-A      Acquired: 10/28/2014 19:32:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	73.152	.01008	.13621	.33698	.00846
Stddev	.00011	.082	.00200	.00024	.00068	.00002
%RSD	8.8656	.11214	19.837	.17437	.20188	.21153

#1	.00117	73.225	.01049	.13599	.33715	.00848
#2	.00110	73.063	.00791	.13618	.33623	.00844
#3	.00130	73.167	.01185	.13646	.33755	.00847

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.563	.07391	.09634	5.6580	.51212	F 566.90
Stddev	.011	.00041	.00054	.0066	.00325	5.49
%RSD	.03141	.55629	.55731	.11602	.63491	.96904

#1	33.555	.07373	.09594	5.6650	.50845	561.52
#2	33.575	.07362	.09614	5.6519	.51326	572.50
#3	33.559	.07438	.09695	5.6571	.51465	566.68

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit						500.00
Low Limit						-.10000

Sample Name: 180-37750-B-9-A      Acquired: 10/28/2014 19:32:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.947</b>	<b>.10814</b>	<b>43.948</b>	<b>3.9162</b>	<b>-.00463</b>	<b>94.168</b>
Stddev	.008	.00001	.148	.0200	.00041	.213
%RSD	.07201	.00725	.33752	.51039	8.8846	.22601

#1	10.952	.10814	43.876	3.9052	-.00497	94.229
#2	10.952	.10815	44.119	3.9041	-.00418	93.932
#3	10.938	.10813	43.849	3.9393	-.00475	94.344

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.30506</b>	<b>1.6191</b>	<b>.00267</b>	<b>.00717</b>	<b>14.252</b>	<b>2.3194</b>
Stddev	.00172	.0100	.00038	.00134	.044	.0091
%RSD	.56332	.61509	14.167	18.639	.31015	.39302

#1	.30546	1.6232	.00307	.00612	14.255	2.3169
#2	.30318	1.6077	.00261	.00672	14.206	2.3118
#3	.30655	1.6263	.00232	.00868	14.295	2.3295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37750-B-9-A      Acquired: 10/28/2014 19:32:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.38460</b>	<b>2.0165</b>	<b>.00316</b>	<b>.88930</b>	<b>12.478</b>
Stddev	.00248	.0097	.00247	.00216	.048
%RSD	.64491	.48276	78.151	.24274	.38142

#1	.38512	2.0056	.00389	.89180	12.479
#2	.38190	2.0194	.00041	.88808	12.430
#3	.38678	2.0244	.00519	.88804	12.525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2495.9</b>	<b>4746.0</b>	<b>67354.</b>	<b>12631.</b>
Stddev	13.3	15.3	104.	42.
%RSD	.53383	.32142	.15390	.33443

#1	2501.8	4757.3	67416.	12679.
#2	2505.2	4752.1	67411.	12614.
#3	2480.6	4728.7	67234.	12599.



Sample Name: 180-37760-A-1-A      Acquired: 10/28/2014 19:37:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	12.456	.02904	.05534	.06865	.00230
Stddev	.00029	.045	.00289	.00054	.00039	.00006
%RSD	114.93	.36528	9.9416	.97752	.56649	2.6364

#1	.00039	12.430	.03223	.05507	.06828	.00226
#2	.00045	12.509	.02661	.05597	.06905	.00226
#3	-.00008	12.430	.02828	.05500	.06862	.00237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.438	.09443	.03123	.67538	.15790	131.97
Stddev	.014	.00028	.00002	.00164	.00020	.26
%RSD	.10898	.29399	.07850	.24295	.12790	.19914

#1	12.453	.09474	.03122	.67723	.15810	131.73
#2	12.428	.09421	.03126	.67412	.15770	131.92
#3	12.432	.09433	.03121	.67479	.15791	132.25

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37760-A-1-A      Acquired: 10/28/2014 19:37:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.3145</b>	<b>.01053</b>	<b>11.972</b>	<b>1.5454</b>	<b>.00036</b>	<b>49.448</b>
Stddev	.0231	.00031	.016	.0026	.00008	.027
%RSD	.69793	2.9123	.13226	.16512	22.858	.05559

#1	3.3059	.01043	11.989	1.5450	.00044	49.424
#2	3.3407	.01028	11.958	1.5431	.00035	49.478
#3	3.2968	.01087	11.969	1.5482	.00028	49.442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.07222</b>	<b>.23769</b>	<b>.00328</b>	<b>.00104</b>	<b>12.123</b>	<b>.40268</b>
Stddev	.00012	.00185	.00113	.00108	.034	.00085
%RSD	.16918	.77902	34.282	103.53	.28413	.21159

#1	.07236	.23567	.00230	-.00020	12.141	.40217
#2	.07213	.23809	.00451	.00173	12.083	.40367
#3	.07218	.23930	.00304	.00160	12.144	.40221

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37760-A-1-A      Acquired: 10/28/2014 19:37:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10909	.47698	.00246	.35312	10.197
Stddev	.00398	.00058	.00097	.00136	.003
%RSD	3.6456	.12069	39.283	.38548	.03055

#1	.10789	.47740	.00177	.35455	10.195
#2	.10586	.47722	.00204	.35184	10.194
#3	.11353	.47632	.00356	.35298	10.200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2671.4	4645.9	65493.	11966.
Stddev	6.7	9.9	92.	7.
%RSD	.25034	.21265	.14113	.06135

#1	2665.3	4641.1	65449.	11974.
#2	2670.5	4639.3	65431.	11964.
#3	2678.5	4657.2	65599.	11960.

Sample Name: 180-37760-A-2-A      Acquired: 10/28/2014 19:42:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	8.4781	.02935	.06089	.05153	.00190
Stddev	.00030	.0577	.00253	.00037	.00042	.00008
%RSD	29.743	.68095	8.6093	.60242	.81311	4.2070

#1	.00135	8.4115	.02994	.06070	.05106	.00181
#2	.00076	8.5127	.02658	.06067	.05168	.00194
#3	.00094	8.5102	.03153	.06132	.05186	.00196

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.119	.08482	.02264	2.0832	.25459	129.70
Stddev	.231	.00010	.00011	.0044	.00062	.60
%RSD	.67631	.12029	.46536	.21157	.24513	.46382

#1	33.865	.08489	.02261	2.0804	.25438	129.04
#2	34.178	.08470	.02255	2.0883	.25411	130.21
#3	34.315	.08486	.02275	2.0810	.25530	129.87

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37760-A-2-A      Acquired: 10/28/2014 19:42:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.5475</b>	<b>.00690</b>	<b>9.3509</b>	<b>.98444</b>	<b>.00037</b>	<b>43.319</b>
Stddev	.0116	.00078	.0359	.00778	.00018	.240
%RSD	.45556	11.310	.38425	.79052	48.372	.55333

#1	<b>2.5343</b>	<b>.00777</b>	<b>9.3187</b>	<b>.97559</b>	<b>.00034</b>	<b>43.053</b>
#2	<b>2.5560</b>	<b>.00668</b>	<b>9.3443</b>	<b>.98753</b>	<b>.00021</b>	<b>43.387</b>
#3	<b>2.5522</b>	<b>.00626</b>	<b>9.3896</b>	<b>.99021</b>	<b>.00057</b>	<b>43.517</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.08086</b>	<b>.31683</b>	<b>.00453</b>	<b>.00369</b>	<b>11.184</b>	<b>.67331</b>
Stddev	.00033	.00052	.00061	.00155	.091	.00083
%RSD	.41224	.16523	13.385	42.023	.81133	.12377

#1	<b>.08107</b>	<b>.31727</b>	<b>.00491</b>	<b>.00527</b>	<b>11.084</b>	<b>.67299</b>
#2	<b>.08104</b>	<b>.31625</b>	<b>.00383</b>	<b>.00362</b>	<b>11.209</b>	<b>.67269</b>
#3	<b>.08048</b>	<b>.31697</b>	<b>.00485</b>	<b>.00217</b>	<b>11.260</b>	<b>.67426</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit						
Low Limit						

Sample Name: 180-37760-A-2-A      Acquired: 10/28/2014 19:42:49      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.19070</b>	<b>.26914</b>	<b>.00277</b>	<b>.20068</b>	<b>11.780</b>
Stddev	.00658	.00090	.00056	.00114	.013
%RSD	3.4511	.33509	20.314	.56931	.10915

#1	.19064	.26858	.00306	.19952	11.792
#2	.19731	.26867	.00312	.20181	11.782
#3	.18414	.27018	.00212	.20072	11.767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2659.8</b>	<b>4566.6</b>	<b>64689.</b>	<b>11827.</b>
Stddev	2.1	3.4	38.	85.
%RSD	.07914	.07466	.05874	.72106

#1	2657.6	4569.2	64703.	11916.
#2	2661.8	4567.8	64646.	11818.
#3	2660.0	4562.7	64718.	11746.

Sample Name: 180-37760-C-3-A      Acquired: 10/28/2014 19:47:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	8.6355	.02711	.07224	.05359	.00204
Stddev	.00014	.0399	.00247	.00068	.00025	.00002
%RSD	31.459	.46231	9.1251	.93490	.46191	.81282

#1	.00042	8.5897	.02472	.07150	.05369	.00202
#2	.00061	8.6539	.02966	.07283	.05331	.00203
#3	.00033	8.6629	.02694	.07238	.05377	.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.100	.02548	.02437	1.5330	.15825	139.07
Stddev	.050	.00006	.00050	.0045	.00053	.14
%RSD	.20784	.23499	2.0562	.29636	.33683	.10046

#1	24.064	.02544	.02492	1.5382	.15803	139.05
#2	24.157	.02555	.02426	1.5308	.15786	139.22
#3	24.078	.02546	.02393	1.5299	.15886	138.94

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37760-C-3-A      Acquired: 10/28/2014 19:47:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.4516</b>	<b>.00732</b>	<b>10.251</b>	<b>1.0186</b>	<b>-.00151</b>	<b>43.618</b>
Stddev	.0307	.00018	.027	.0019	.00006	.153
%RSD	1.2527	2.4353	.26093	.18516	4.1329	.35013
#1	2.4232	.00725	10.264	1.0170	-.00151	43.448
#2	2.4475	.00719	10.268	1.0207	-.00158	43.662
#3	2.4842	.00752	10.220	1.0182	-.00146	43.743

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.07724</b>	<b>.30847</b>	<b>.00070</b>	<b>.00289</b>	<b>12.562</b>	<b>.60983</b>
Stddev	.00041	.00226	.00043	.00144	.030	.00257
%RSD	.53670	.73214	60.653	49.730	.24213	.42158
#1	.07723	.30620	.00028	.00303	12.535	.60744
#2	.07684	.31072	.00113	.00139	12.595	.60950
#3	.07767	.30850	.00070	.00426	12.557	.61255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37760-C-3-A      Acquired: 10/28/2014 19:47:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16704	.21599	.00289	.24414	5.5256
Stddev	.00615	.00103	.00086	.00288	.0022
%RSD	3.6833	.47584	29.801	1.1789	.03988

#1	.16059	.21504	.00388	.24716	5.5273
#2	.17284	.21708	.00226	.24382	5.5231
#3	.16769	.21585	.00254	.24143	5.5263

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2708.3	4625.1	65511.	11800.
Stddev	1.1	6.4	72.	47.
%RSD	.04059	.13941	.10925	.40142

#1	2708.3	4622.3	65437.	11842.
#2	2709.4	4632.5	65516.	11749.
#3	2707.2	4620.6	65580.	11809.

Sample Name: MB 180-122236/1-A      Acquired: 10/28/2014 19:52:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00615	.00011	-.00048	.00011	.00006
Stddev	.00025	.00822	.00158	.00037	.00007	.00003
%RSD	170.12	133.67	1480.7	77.186	63.387	42.156

#1	.00038	-.00103	-.00071	-.00007	.00012	.00004
#2	.00019	-.01563	-.00089	-.00059	.00004	.00009
#3	-.00012	-.00179	.00192	-.00079	.00018	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09648	.00017	-.00036	.00091	.00110	.00850
Stddev	.00362	.00003	.00032	.00023	.00015	.00055
%RSD	3.7478	20.081	89.126	24.811	13.297	6.4783

#1	.09677	.00013	.00001	.00082	.00122	.00913
#2	.09995	.00017	-.00055	.00117	.00094	.00809
#3	.09273	.00020	-.00055	.00075	.00114	.00829

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122236/1-A      Acquired: 10/28/2014 19:52:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.04166</b>	<b>-.00039</b>	<b>.02014</b>	<b>.00008</b>	<b>-.00062</b>	<b>.01374</b>
Stddev	.01701	.00080	.00818	.00001	.00013	.00105
%RSD	40.830	204.86	40.623	8.1942	20.601	7.6754

#1	<b>-.03014</b>	<b>-.00100</b>	<b>.02959</b>	<b>.00008</b>	<b>-.00049</b>	<b>.01393</b>
#2	<b>-.03364</b>	<b>.00052</b>	<b>.01543</b>	<b>.00009</b>	<b>-.00074</b>	<b>.01260</b>
#3	<b>-.06119</b>	<b>-.00070</b>	<b>.01541</b>	<b>.00007</b>	<b>-.00062</b>	<b>.01468</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00026</b>	<b>-.00006</b>	<b>.00057</b>	<b>.00015</b>	<b>.01572</b>	<b>.03035</b>
Stddev	.00022	.00075	.00074	.00068	.00423	.00081
%RSD	85.277	1348.6	130.85	445.28	26.894	2.6795

#1	<b>.00049</b>	<b>-.00044</b>	<b>.00125</b>	<b>-.00043</b>	<b>.01932</b>	<b>.03127</b>
#2	<b>.00005</b>	<b>.00081</b>	<b>.00067</b>	<b>-.00002</b>	<b>.01106</b>	<b>.03005</b>
#3	<b>.00023</b>	<b>-.00054</b>	<b>-.00022</b>	<b>.00091</b>	<b>.01679</b>	<b>.02972</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122236/1-A      Acquired: 10/28/2014 19:52:48      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00350	.00035	-.00065	-.00011	.00394
Stddev	.00074	.00008	.00122	.00117	.00001
%RSD	21.201	24.562	186.00	1043.3	.32199

#1	.00285	.00025	.00051	-.00147	.00394
#2	.00431	.00037	-.00191	.00060	.00394
#3	.00335	.00042	-.00056	.00053	.00392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.2	4459.7	64575.	11338.
Stddev	25.5	36.7	119.	91.
%RSD	.89100	.82246	.18421	.80695

#1	2833.0	4417.9	64454.	11346.
#2	2873.5	4474.9	64692.	11242.
#3	2880.1	4486.3	64579.	11424.

Sample Name: LCS 180-122236/2-A      Acquired: 10/28/2014 19:57:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04207	1.6591	.42343	.84809	1.6784	.04171
Stddev	.00017	.0116	.00094	.00055	.0034	.00003
%RSD	.40288	.69888	.22311	.06534	.20483	.06674

#1	.04212	1.6706	.42252	.84817	1.6776	.04168
#2	.04188	1.6593	.42337	.84860	1.6755	.04174
#3	.04221	1.6474	.42441	.84750	1.6822	.04171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.842	.04187	.41621	.16998	.20302	.86233
Stddev	.134	.00026	.00013	.00129	.00098	.00395
%RSD	.29805	.62973	.03089	.76163	.48238	.45794

#1	44.777	.04158	.41617	.17142	.20277	.85834
#2	44.754	.04193	.41611	.16890	.20219	.86624
#3	44.996	.04209	.41636	.16964	.20410	.86239

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122236/2-A      Acquired: 10/28/2014 19:57:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>45.235</b>	<b>.85723</b>	<b>44.314</b>	<b>F .39568</b>	<b>.84460</b>	<b>47.188</b>
Stddev	.200	.00209	.183	.00096	.00020	.186
%RSD	.44152	.24335	.41396	.24342	.02406	.39467

#1	45.171	.85499	44.272	.39603	.84443	47.178
#2	45.075	.85758	44.154	.39459	.84455	47.006
#3	45.458	.85912	44.514	.39642	.84482	47.378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				.60000		
Low Limit				.40000		

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.41113</b>	<b>F .39706</b>	<b>.42412</b>	<b>.41422</b>	<b>F 7.6683</b>	<b>1.6180</b>
Stddev	.00012	.00088	.00076	.00022	.0075	.0022
%RSD	.02995	.22085	.17803	.05402	.09723	.13370

#1	.41111	.39632	.42413	.41418	7.6631	1.6157
#2	.41126	.39803	.42336	.41447	7.6650	1.6200
#3	.41102	.39683	.42487	.41403	7.6768	1.6184

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		.60000			12.000	
Low Limit		.40000			8.0000	

Sample Name: LCS 180-122236/2-A      Acquired: 10/28/2014 19:57:59      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.80315	.81019	F .38780	.44415	.41778
Stddev	.00506	.00267	.00135	.00333	.00113
%RSD	.62955	.33012	.34807	.74977	.26964

#1	.80837	.81056	.38865	.44189	.41668
#2	.79828	.80735	.38624	.44797	.41773
#3	.80279	.81267	.38851	.44258	.41893

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.60000		
Low Limit			.40000		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2505.6	4249.3	60432.	11114.
Stddev	4.1	3.5	60.	38.
%RSD	.16232	.08136	.09870	.34042

#1	2501.5	4246.1	60464.	11097.
#2	2509.7	4253.0	60363.	11157.
#3	2505.5	4248.9	60469.	11087.

Sample Name: LCSD 180-122236/3-A      Acquired: 10/28/2014 20:02:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04391	1.7005	.43178	.87050	1.7316	.04276
Stddev	.00029	.0076	.00105	.00182	.0017	.00023
%RSD	.67054	.44907	.24429	.20929	.09903	.53345

#1	.04419	1.6924	.43057	.87103	1.7296	.04255
#2	.04393	1.7076	.43250	.86847	1.7325	.04273
#3	.04361	1.7015	.43226	.87199	1.7326	.04300

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	43.057	.04294	.42874	.17674	.20835	.94212
Stddev	.095	.00007	.00125	.00134	.00044	.00324
%RSD	.22141	.17015	.29234	.75746	.21078	.34433

#1	42.963	.04302	.43019	.17819	.20855	.93854
#2	43.053	.04288	.42804	.17648	.20866	.94295
#3	43.154	.04292	.42800	.17555	.20785	.94487

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCSD 180-122236/3-A      Acquired: 10/28/2014 20:02:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>43.553</b>	<b>.87831</b>	<b>42.410</b>	<b>.40632</b>	<b>.87616</b>	<b>45.352</b>
Stddev	.121	.00408	.129	.00148	.00107	.147
%RSD	.27852	.46404	.30480	.36372	.12235	.32414

#1	43.419	.87385	42.362	.40799	.87627	45.202
#2	43.655	.88184	42.311	.40576	.87503	45.496
#3	43.586	.87924	42.556	.40520	.87717	45.357

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.42464</b>	<b>.41108</b>	<b>.43770</b>	<b>.42267</b>	<b>F 7.9665</b>	<b>1.6847</b>
Stddev	.00123	.00171	.00357	.00275	.0257	.0013
%RSD	.28857	.41524	.81570	.65124	.32233	.07940

#1	.42602	.41304	.44002	.42578	7.9656	1.6860
#2	.42424	.41022	.43359	.42167	7.9413	1.6846
#3	.42366	.40997	.43950	.42055	7.9926	1.6833

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					12.000	
Low Limit					8.0000	

Sample Name: LCSD 180-122236/3-A      Acquired: 10/28/2014 20:02:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.82566	.84643	.40211	.45640	.45437
Stddev	.00214	.00382	.00136	.00331	.00055
%RSD	.25880	.45139	.33790	.72576	.12174

#1	.82802	.85064	.40358	.45266	.45421
#2	.82509	.84546	.40183	.45897	.45391
#3	.82386	.84318	.40091	.45757	.45498

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2515.3	4278.4	60373.	11147.
Stddev	11.0	14.0	47.	32.
%RSD	.43648	.32764	.07850	.28934

#1	2504.2	4263.0	60424.	11110.
#2	2515.5	4281.9	60366.	11163.
#3	2526.2	4290.4	60330.	11168.

Sample Name: CCV 1369837      Acquired: 10/28/2014 20:07:41      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0440</b>	<b>25.117</b>	<b>.52594</b>	<b>2.0902</b>	<b>2.0147</b>	<b>1.9873</b>
Stddev	.0067	.053	.00148	.0026	.0043	.0019
%RSD	.64202	.21262	.28213	.12623	.21176	.09486

#1	1.0471	25.139	.52761	2.0924	2.0191	1.9895
#2	1.0363	25.056	.52543	2.0909	2.0106	1.9860
#3	1.0485	25.155	.52477	2.0873	2.0144	1.9864

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.315</b>	<b>.51756</b>	<b>2.0992</b>	<b>2.0199</b>	<b>1.9048</b>	<b>25.699</b>
Stddev	.175	.00170	.0021	.0098	.0097	.100
%RSD	.34786	.32917	.09930	.48437	.50726	.38994

#1	50.501	.51938	2.0987	2.0281	1.9089	25.757
#2	50.154	.51732	2.1014	2.0091	1.8938	25.583
#3	50.290	.51600	2.0973	2.0225	1.9118	25.756

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 20:07:41      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>126.96</b>	<b>2.0274</b>	<b>49.670</b>	<b>1.8610</b>	<b>1.9773</b>	<b>129.89</b>
Stddev	.45	.0045	.148	.0075	.0014	.46
%RSD	.35053	.22384	.29718	.40198	.06903	.35511

#1	127.43	2.0324	49.816	1.8675	1.9774	130.41
#2	126.55	2.0237	49.521	1.8528	1.9759	129.53
#3	126.89	2.0259	49.673	1.8628	1.9786	129.73

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.0730</b>	<b>.50722</b>	<b>.51230</b>	<b>.51895</b>	<b>2.0596</b>	<b>1.9158</b>
Stddev	.0029	.00224	.00192	.00037	.0087	.0007
%RSD	.13933	.44125	.37409	.07122	.42096	.03658

#1	2.0697	.50635	.51367	.51923	2.0626	1.9151
#2	2.0753	.50977	.51311	.51853	2.0498	1.9165
#3	2.0739	.50556	.51011	.51909	2.0663	1.9158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 20:07:41      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9245	1.9310	.97097	2.1719	1.9883
Stddev	.0083	.0104	.00134	.0085	.0045
%RSD	.42855	.54001	.13832	.39193	.22641

#1	1.9334	1.9389	.97070	2.1778	1.9921
#2	1.9230	1.9192	.97243	2.1622	1.9893
#3	1.9171	1.9350	.96979	2.1759	1.9833

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2384.9	4315.4	60567.	11229.
Stddev	3.4	5.4	415.	69.
%RSD	.14433	.12503	.68471	.61824

#1	2388.5	4310.9	60182.	11163.
#2	2384.6	4321.4	61006.	11301.
#3	2381.6	4313.9	60513.	11221.

Sample Name: CCB17      Acquired: 10/28/2014 20:12:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00011</b>	<b>-.00830</b>	<b>.00112</b>	<b>.00062</b>	<b>.00016</b>	<b>.00008</b>
Stddev	.00016	.00230	.00090	.00061	.00003	.00001
%RSD	141.68	27.674	79.841	99.217	17.066	12.774

#1	<b>-.00025</b>	<b>-.00774</b>	<b>.00120</b>	<b>.00112</b>	<b>.00013</b>	<b>.00007</b>
#2	<b>.00007</b>	<b>-.01082</b>	<b>.00019</b>	<b>-.00007</b>	<b>.00018</b>	<b>.00008</b>
#3	<b>-.00016</b>	<b>-.00633</b>	<b>.00198</b>	<b>.00081</b>	<b>.00018</b>	<b>.00008</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00866</b>	<b>.00002</b>	<b>.00009</b>	<b>-.00003</b>	<b>.00139</b>	<b>.00150</b>
Stddev	.00168	.00004	.00020	.00018	.00020	.00204
%RSD	19.405	286.35	233.73	650.22	14.106	135.92

#1	<b>-.00678</b>	<b>.00007</b>	<b>.00024</b>	<b>-.00020</b>	<b>.00134</b>	<b>.00195</b>
#2	<b>-.00919</b>	<b>-.00001</b>	<b>.00017</b>	<b>-.00004</b>	<b>.00123</b>	<b>-.00073</b>
#3	<b>-.01001</b>	<b>-.00001</b>	<b>-.00015</b>	<b>.00016</b>	<b>.00161</b>	<b>.00327</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB17      Acquired: 10/28/2014 20:12:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02082	.00023	.00769	.00004	.00117	.01333
Stddev	.01174	.00076	.00597	.00004	.00022	.00168
%RSD	56.397	328.88	77.614	107.59	19.191	12.632

#1	.03177	.00011	.00080	.00008	.00129	.01243
#2	.02225	.00104	.01107	.00003	.00131	.01527
#3	.00843	-.00046	.01120	-.00000	.00091	.01228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00043	.00069	-.00080	-.00172	.00004
Stddev	.00005	.00027	.00064	.00175	.00223	.00043
%RSD	1658.5	63.797	92.347	217.48	129.52	1169.4

#1	.00000	.00033	-.00004	.00109	-.00166	.00025
#2	-.00005	.00073	.00096	-.00235	-.00398	-.00046
#3	.00004	.00022	.00115	-.00115	.00048	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB17      Acquired: 10/28/2014 20:12:29      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00164	.00004	.00094	-.00179	-.00011
Stddev	.00272	.00010	.00071	.00059	.00009
%RSD	165.30	258.92	75.579	33.225	75.496

#1	.00431	-.00004	.00145	-.00228	-.00010
#2	.00175	.00000	.00124	-.00195	-.00021
#3	-.00112	.00016	.00013	-.00113	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2937.6	4605.4	65735.	11347.
Stddev	5.0	2.2	172.	41.
%RSD	.16960	.04836	.26169	.36523

#1	2931.9	4602.8	65593.	11300.
#2	2940.9	4606.8	65686.	11376.
#3	2940.2	4606.5	65926.	11367.



Sample Name: 180-37856-A-1-B      Acquired: 10/28/2014 20:17:39      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	103.14	.00586	.16503	.11598	.00044
Stddev	.00045	.22	.00125	.00076	.00003	.00006
%RSD	52.631	.21240	21.262	.45865	.02390	14.710

#1	.00100	102.92	.00622	.16535	.11597	.00043
#2	.00120	103.13	.00689	.16558	.11596	.00038
#3	.00035	103.36	.00447	.16417	.11601	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 804.11	.02210	.45390	.20627	.06547	5.6674
Stddev	6.35	.00013	.00019	.00099	.00018	.0123
%RSD	.78923	.58923	.04171	.47987	.27458	.21719

#1	797.02	.02219	.45368	.20661	.06555	5.6535
#2	806.08	.02216	.45403	.20515	.06527	5.6716
#3	809.24	.02195	.45398	.20704	.06560	5.6770

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	600.00					
Low Limit	-5.0000					

Sample Name: 180-37856-A-1-B      Acquired: 10/28/2014 20:17:39      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.8916</b>	<b>.05047</b>	<b>14.653</b>	<b>.07385</b>	<b>.00393</b>	<b>7.4491</b>
Stddev	.0160	.00063	.053	.00011	.00078	.0066
%RSD	.55317	1.2525	.36088	.15128	19.883	.08916

#1	<b>2.8982</b>	<b>.05001</b>	<b>14.602</b>	<b>.07372</b>	<b>.00482</b>	<b>7.4471</b>
#2	<b>2.8733</b>	<b>.05021</b>	<b>14.650</b>	<b>.07392</b>	<b>.00335</b>	<b>7.4438</b>
#3	<b>2.9032</b>	<b>.05119</b>	<b>14.707</b>	<b>.07391</b>	<b>.00362</b>	<b>7.4566</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04234</b>	<b>1.3379</b>	<b>-.00821</b>	<b>.00341</b>	<b>5.0543</b>	<b>.09323</b>
Stddev	.00036	.0021	.00240	.00303	.0213	.00152
%RSD	.84601	.15518	29.229	88.681	.42188	1.6270

#1	<b>.04245</b>	<b>1.3359</b>	<b>-.01029</b>	<b>-.00000</b>	<b>5.0393</b>	<b>.09218</b>
#2	<b>.04193</b>	<b>1.3376</b>	<b>-.00558</b>	<b>.00576</b>	<b>5.0787</b>	<b>.09254</b>
#3	<b>.04262</b>	<b>1.3401</b>	<b>-.00874</b>	<b>.00448</b>	<b>5.0450</b>	<b>.09497</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-1-B      Acquired: 10/28/2014 20:17:39      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.55684	F 14.346	-.01652	.11321	F 157.38
Stddev	.00490	.052	.00286	.00196	1.83
%RSD	.87911	.36264	17.342	1.7326	1.1611

#1	.55144	14.300	-.01341	.11418	158.64
#2	.55808	14.334	-.01711	.11449	155.29
#3	.56100	14.402	-.01904	.11095	158.22

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		10.000			25.000
Low Limit		-.05000			-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2147.6	4167.2	58594.	11330.
Stddev	6.1	13.5	204.	39.
%RSD	.28494	.32489	.34815	.34787

#1	2141.1	4153.7	58361.	11368.
#2	2153.2	4180.8	58736.	11332.
#3	2148.6	4167.3	58686.	11289.

Sample Name: 180-37856-A-2-B      Acquired: 10/28/2014 20:23:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00184	50.999	.00576	.15645	.15714	.00008
Stddev	.00033	.031	.00175	.00052	.00017	.00005
%RSD	17.741	.06161	30.393	.33163	.10558	63.781

#1	.00187	50.965	.00378	.15615	.15695	.00009
#2	.00214	51.007	.00710	.15615	.15726	.00003
#3	.00149	51.026	.00640	.15705	.15721	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 766.79	.06116	.55667	.49428	.10107	33.269
Stddev	3.24	.00008	.00027	.00337	.00019	.006
%RSD	.42214	.13003	.04883	.68093	.19283	.01785

#1	764.19	.06123	.55638	.49473	.10085	33.263
#2	765.77	.06108	.55692	.49072	.10119	33.274
#3	770.42	.06118	.55671	.49740	.10118	33.272

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	600.00					
Low Limit	-5.0000					

Sample Name: 180-37856-A-2-B      Acquired: 10/28/2014 20:23:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9171	.04244	14.682	.18605	.00228	4.9327
Stddev	.0088	.00087	.034	.00024	.00054	.0048
%RSD	.45696	2.0388	.22821	.12742	23.912	.09814

#1	1.9255	.04304	14.650	.18625	.00284	4.9272
#2	1.9080	.04144	14.717	.18579	.00175	4.9351
#3	1.9178	.04282	14.678	.18612	.00225	4.9359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04446	1.9911	-.00760	.00280	3.6310	.11324
Stddev	.00032	.0062	.00202	.00326	.0106	.00036
%RSD	.72159	.31139	26.557	116.56	.29177	.31452

#1	.04483	1.9841	-.00921	.00590	3.6365	.11287
#2	.04423	1.9934	-.00824	-.00060	3.6377	.11358
#3	.04433	1.9958	-.00534	.00308	3.6188	.11328

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-2-B      Acquired: 10/28/2014 20:23:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50348	F 14.958	-.01507	.05434	F 151.68
Stddev	.00916	.064	.00089	.00353	1.12
%RSD	1.8197	.42953	5.8792	6.4962	.73757

#1	.49291	15.032	-.01592	.05059	151.54
#2	.50917	14.914	-.01513	.05760	152.87
#3	.50836	14.928	-.01415	.05483	150.64

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		10.000			25.000
Low Limit		-.05000			-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2193.6	4046.9	57843.	10967.
Stddev	2.8	4.4	97.	32.
%RSD	.12762	.10945	.16707	.29156

#1	2190.5	4044.8	57743.	10931.
#2	2195.9	4052.0	57935.	10981.
#3	2194.4	4043.9	57851.	10990.

Sample Name: 180-37856-A-3-B      Acquired: 10/28/2014 20:28:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00722	87.455	-.00112	.11712	.09350	.00031
Stddev	.00049	.104	.00226	.00081	.00013	.00003
%RSD	6.7257	.11858	201.82	.68965	.14194	11.215

#1	.00767	87.337	-.00369	.11805	.09362	.00028
#2	.00671	87.499	-.00021	.11665	.09352	.00035
#3	.00729	87.529	.00054	.11665	.09336	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 763.17	.18027	.74901	.33549	.24254	130.84
Stddev	7.35	.00024	.00130	.00047	.00222	.36
%RSD	.96268	.13485	.17353	.13997	.91552	.27716

#1	755.46	.18049	.75025	.33509	.24145	130.50
#2	770.10	.18001	.74766	.33601	.24509	131.22
#3	763.95	.18031	.74912	.33536	.24107	130.79

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	600.00					
Low Limit	-5.0000					

Sample Name: 180-37856-A-3-B      Acquired: 10/28/2014 20:28:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.7645</b>	<b>.06602</b>	<b>11.575</b>	<b>.49583</b>	<b>.00133</b>	<b>5.7434</b>
Stddev	.0136	.00043	.057	.00346	.00028	.0033
%RSD	.77035	.64831	.49555	.69757	20.853	.05823

#1	1.7798	.06558	11.524	.49390	.00121	5.7473
#2	1.7598	.06644	11.637	.49983	.00164	5.7419
#3	1.7539	.06605	11.564	.49377	.00113	5.7412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.07724</b>	<b>2.5009</b>	<b>-.00788</b>	<b>.00387</b>	<b>4.8855</b>	<b>.20369</b>
Stddev	.00081	.0058	.00238	.00214	.0164	.00159
%RSD	1.0535	.23103	30.154	55.223	.33636	.78296

#1	.07691	2.5075	-.00947	.00172	4.8668	.20519
#2	.07664	2.4969	-.00515	.00599	4.8920	.20386
#3	.07816	2.4982	-.00902	.00390	4.8977	.20202

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37856-A-3-B      Acquired: 10/28/2014 20:28:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47227	9.2567	-.01132	.08373	F 216.07
Stddev	.00593	.0993	.00093	.00302	3.22
%RSD	1.2546	1.0729	8.2096	3.6065	1.4921

#1	.47540	9.1806	-.01170	.08025	218.78
#2	.47597	9.3690	-.01200	.08550	216.92
#3	.46544	9.2203	-.01026	.08545	212.51

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2198.6	4077.4	57774.	11076.
Stddev	3.6	10.0	29.	82.
%RSD	.16592	.24478	.05032	.73986

#1	2194.5	4066.0	57806.	11136.
#2	2200.0	4082.0	57764.	10983.
#3	2201.4	4084.3	57751.	11109.

Sample Name: 180-37856-A-4-B      Acquired: 10/28/2014 20:33:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00044</b>	<b>22.586</b>	<b>.03255</b>	<b>.50274</b>	<b>.03607</b>	<b>.00014</b>
Stddev	.00033	.027	.00126	.00120	.00020	.00001
%RSD	76.515	.12144	3.8675	.23875	.54448	8.5107

#1	<b>-.00081</b>	<b>22.616</b>	<b>.03144</b>	<b>.50164</b>	<b>.03585</b>	<b>.00014</b>
#2	<b>-.00016</b>	<b>22.563</b>	<b>.03392</b>	<b>.50255</b>	<b>.03614</b>	<b>.00014</b>
#3	<b>-.00033</b>	<b>22.578</b>	<b>.03229</b>	<b>.50402</b>	<b>.03623</b>	<b>.00012</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>10.261</b>	<b>.00266</b>	<b>.00495</b>	<b>.02308</b>	<b>.14364</b>	<b>2.6411</b>
Stddev	.033	.00001	.00011	.00013	.00124	.0167
%RSD	.31948	.36832	2.2060	.56520	.86600	.63051

#1	<b>10.296</b>	<b>.00267</b>	<b>.00507</b>	<b>.02293</b>	<b>.14489</b>	<b>2.6599</b>
#2	<b>10.255</b>	<b>.00265</b>	<b>.00491</b>	<b>.02316</b>	<b>.14363</b>	<b>2.6282</b>
#3	<b>10.232</b>	<b>.00266</b>	<b>.00486</b>	<b>.02315</b>	<b>.14240</b>	<b>2.6352</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-B      Acquired: 10/28/2014 20:33:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>8.6870</b>	<b>.00022</b>	<b>1.8956</b>	<b>.17690</b>	<b>.00103</b>	<b>16.857</b>
Stddev	.0147	.00042	.0216	.00110	.00030	.015
%RSD	.16901	189.56	1.1403	.62178	29.143	.08729

#1	8.6894	-.00012	1.9060	.17790	.00087	16.870
#2	8.6712	.00070	1.8708	.17708	.00138	16.841
#3	8.7003	.00009	1.9101	.17572	.00085	16.861

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00963</b>	<b>.03076</b>	<b>.01146</b>	<b>.00687</b>	<b>3.7999</b>	<b>.04956</b>
Stddev	.00004	.00133	.00043	.00163	.0143	.00038
%RSD	.37617	4.3219	3.7218	23.731	.37720	.76921

#1	.00960	.02990	.01101	.00832	3.8122	.04936
#2	.00967	.03008	.01185	.00718	3.7841	.04933
#3	.00962	.03229	.01153	.00511	3.8034	.05000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-4-B      Acquired: 10/28/2014 20:33:50      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04158	.93546	-.00411	.00049	.30607
Stddev	.00470	.00317	.00091	.00074	.00115
%RSD	11.297	.33846	22.276	151.99	.37534

#1	.04617	.93857	-.00350	-.00021	.30722
#2	.03678	.93224	-.00366	.00040	.30605
#3	.04179	.93557	-.00516	.00126	.30492

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2781.2	4528.8	64606.	11535.
Stddev	4.6	4.7	79.	55.
%RSD	.16570	.10426	.12293	.47764

#1	2778.1	4523.4	64631.	11475.
#2	2786.5	4532.3	64518.	11547.
#3	2779.0	4530.7	64671.	11584.

Sample Name: 180-37856-A-9-A      Acquired: 10/28/2014 20:38:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00137	32.249	.00100	.05048	.06952	.00041
Stddev	.00018	.019	.00397	.00020	.00018	.00007
%RSD	13.346	.05803	397.05	.39594	.26523	16.938

#1	.00119	32.266	.00455	.05053	.06972	.00033
#2	.00135	32.251	-.00329	.05064	.06935	.00046
#3	.00156	32.229	.00174	.05026	.06950	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	268.17	.04100	.16374	.12769	.08828	191.73
Stddev	1.22	.00009	.00081	.00034	.00081	.42
%RSD	.45603	.22603	.49174	.26857	.91398	.21675

#1	268.29	.04094	.16464	.12808	.08896	192.20
#2	266.89	.04095	.16308	.12750	.08739	191.50
#3	269.32	.04110	.16351	.12748	.08850	191.47

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-9-A      Acquired: 10/28/2014 20:38:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.85203</b>	<b>.01856</b>	<b>6.2047</b>	<b>.75589</b>	<b>.00075</b>	<b>2.3719</b>
Stddev	.02881	.00098	.0456	.00141	.00026	.0110
%RSD	3.3812	5.2851	.73432	.18601	34.884	.46153

#1	<b>.87477</b>	<b>.01830</b>	<b>6.2497</b>	<b>.75710</b>	<b>.00084</b>	<b>2.3845</b>
#2	<b>.86168</b>	<b>.01964</b>	<b>6.2057</b>	<b>.75435</b>	<b>.00095</b>	<b>2.3645</b>
#3	<b>.81963</b>	<b>.01773</b>	<b>6.1586</b>	<b>.75623</b>	<b>.00045</b>	<b>2.3668</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.03446</b>	<b>.67739</b>	<b>-.00155</b>	<b>.00256</b>	<b>4.4519</b>	<b>.08289</b>
Stddev	.00046	.00156	.00124	.00095	.0115	.00044
%RSD	1.3458	.22956	79.958	37.277	.25799	.53390

#1	<b>.03395</b>	<b>.67568</b>	<b>-.00156</b>	<b>.00191</b>	<b>4.4623</b>	<b>.08335</b>
#2	<b>.03486</b>	<b>.67871</b>	<b>-.00279</b>	<b>.00211</b>	<b>4.4396</b>	<b>.08284</b>
#3	<b>.03456</b>	<b>.67779</b>	<b>-.00031</b>	<b>.00365</b>	<b>4.4537</b>	<b>.08247</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37856-A-9-A      Acquired: 10/28/2014 20:38:53      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18328	3.9075	-.00426	.04299	F 123.30
Stddev	.00185	.0223	.00228	.00141	.92
%RSD	1.0105	.56995	53.523	3.2702	.74855

#1	.18534	3.9310	-.00204	.04439	123.19
#2	.18174	3.8868	-.00659	.04301	124.27
#3	.18277	3.9045	-.00415	.04158	122.44

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2450.1	4245.0	60697.	11170.
Stddev	5.5	7.6	153.	72.
%RSD	.22557	.18011	.25139	.64022

#1	2444.2	4237.0	60521.	11090.
#2	2455.1	4252.3	60791.	11229.
#3	2450.9	4245.7	60780.	11189.

Sample Name: 180-37858-A-1-B@10      Acquired: 10/28/2014 20:44:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00584	2.8582	.03087	.01409	.04563	.00020
Stddev	.00034	.0105	.00120	.00051	.00010	.00002
%RSD	5.8966	.36591	3.8835	3.6053	.20861	11.979

#1	.00574	2.8697	.03035	.01460	.04556	.00022
#2	.00556	2.8555	.03001	.01409	.04574	.00021
#3	.00622	2.8493	.03224	.01359	.04559	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.760	.00317	.09496	F 30.397	.25205	173.71
Stddev	.104	.00009	.00011	.034	.00111	.25
%RSD	.40210	2.8283	.11206	.11145	.44205	.14453

#1	25.870	.00318	.09508	30.389	.25325	173.99
#2	25.664	.00326	.09488	30.434	.25185	173.51
#3	25.747	.00308	.09491	30.368	.25105	173.64

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				25.000		
Low Limit				-.00500		



Sample Name: 180-37858-A-1-B@10      Acquired: 10/28/2014 20:44:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>11.898</b>	<b>.01739</b>	<b>3.5553</b>	<b>1.3070</b>	<b>.01401</b>	<b>.88547</b>
Stddev	.036	.00066	.0238	.0077	.00024	.00184
%RSD	.29943	3.8176	.67060	.58898	1.7315	.20728

#1	11.938	.01796	3.5814	1.3158	.01421	.88671
#2	11.886	.01666	3.5347	1.3035	.01374	.88336
#3	11.870	.01754	3.5496	1.3016	.01408	.88635

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.10541</b>	<b>1.7262</b>	<b>-.00011</b>	<b>.00457</b>	<b>.75597</b>	<b>.01187</b>
Stddev	.00107	.0056	.00146	.00152	.00469	.00050
%RSD	1.0109	.32699	1310.0	33.376	.62070	4.1868

#1	.10515	1.7292	-.00068	.00455	.76025	.01213
#2	.10658	1.7197	-.00120	.00305	.75095	.01218
#3	.10449	1.7297	.00155	.00610	.75673	.01130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-1-B@10      Acquired: 10/28/2014 20:44:17      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02324	.24682	.00830	.01196	F 65.110
Stddev	.00273	.00064	.00062	.00015	.691
%RSD	11.733	.26062	7.5085	1.2646	1.0617

#1	.02575	.24726	.00865	.01212	65.808
#2	.02034	.24712	.00758	.01192	65.096
#3	.02363	.24608	.00866	.01183	64.425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2722.9	4458.6	63222.	11488.
Stddev	2.1	1.4	48.	40.
%RSD	.07875	.03186	.07654	.34425

#1	2720.4	4457.0	63270.	11443.
#2	2724.2	4459.4	63173.	11514.
#3	2724.2	4459.4	63222.	11508.

Sample Name: 180-37858-A-2-B@10      Acquired: 10/28/2014 20:49:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00671	3.3678	.02430	.01332	.04052	.00015
Stddev	.00010	.0218	.00075	.00045	.00015	.00007
%RSD	1.5449	.64837	3.0973	3.3678	.36449	45.636

#1	.00662	3.3700	.02421	.01369	.04067	.00007
#2	.00668	3.3884	.02360	.01282	.04038	.00020
#3	.00682	3.3449	.02510	.01345	.04051	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.234	.00937	.09680	22.839	.27159	116.10
Stddev	.192	.00006	.00018	.037	.00261	.12
%RSD	.54511	.59280	.18470	.16147	.96002	.10222

#1	35.280	.00943	.09681	22.860	.27271	116.23
#2	35.398	.00935	.09662	22.861	.27346	116.07
#3	35.023	.00932	.09698	22.796	.26861	116.00

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-2-B@10      Acquired: 10/28/2014 20:49:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>8.8759</b>	<b>.01657</b>	<b>2.9655</b>	<b>.88507</b>	<b>.01010</b>	<b>.72598</b>
Stddev	.0343	.00043	.0206	.01062	.00022	.00373
%RSD	.38615	2.6053	.69360	1.1998	2.1676	.51444

#1	8.8950	.01609	2.9765	.88447	.01019	.72980
#2	8.8964	.01671	2.9783	.89598	.00985	.72579
#3	8.8364	.01692	2.9418	.87477	.01025	.72234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.08166</b>	<b>1.1236</b>	<b>.00017</b>	<b>.00183</b>	<b>.67810</b>	<b>.00866</b>
Stddev	.00042	.0029	.00181	.00216	.00133	.00037
%RSD	.51281	.25848	1092.3	117.83	.19643	4.2652

#1	.08206	1.1203	-.00151	.00058	.67703	.00908
#2	.08168	1.1249	-.00009	.00433	.67767	.00852
#3	.08122	1.1256	.00209	.00059	.67959	.00838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-2-B@10      Acquired: 10/28/2014 20:49:35      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02824	.25542	.00771	.00953	F 51.789
Stddev	.00317	.00302	.00055	.00209	.104
%RSD	11.217	1.1826	7.1248	21.953	.20161

#1	.03177	.25623	.00718	.01024	51.905
#2	.02731	.25795	.00768	.00717	51.702
#3	.02564	.25208	.00828	.01117	51.761

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2731.8	4488.1	63797.	11453.
Stddev	2.4	4.8	122.	126.
%RSD	.08611	.10586	.19108	1.0998

#1	2731.9	4489.4	63680.	11441.
#2	2734.1	4482.8	63787.	11334.
#3	2729.4	4492.1	63923.	11585.

Sample Name: 180-37858-A-3-B@10      Acquired: 10/28/2014 20:54:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00590	2.9393	.02661	.04863	.87071	.00008
Stddev	.00018	.0090	.00092	.00105	.00330	.00002
%RSD	3.0631	.30533	3.4472	2.1498	.37953	23.576

#1	.00600	2.9486	.02662	.04884	.86994	.00007
#2	.00601	2.9384	.02569	.04750	.87433	.00007
#3	.00569	2.9308	.02752	.04956	.86785	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.2632	.00316	.10918	21.722	.22879	34.591
Stddev	.0220	.00008	.00294	.171	.00088	.100
%RSD	.23757	2.6587	2.6883	.78924	.38458	.28793

#1	9.2788	.00309	.10957	21.919	.22949	34.655
#2	9.2727	.00314	.10608	21.643	.22906	34.643
#3	9.2380	.00325	.11191	21.604	.22780	34.477

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-3-B@10      Acquired: 10/28/2014 20:54:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5802	.00912	.93728	.21322	.09649	2.0679
Stddev	.0229	.00056	.00983	.00045	.00253	.0051
%RSD	1.4518	6.0973	1.0483	.21309	2.6251	.24506

#1	1.6018	.00960	.94221	.21349	.09720	2.0626
#2	1.5828	.00851	.92596	.21348	.09368	2.0726
#3	1.5561	.00923	.94366	.21270	.09859	2.0687

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01949	F 104.17	.01120	.00414	.65070	.00902
Stddev	.00067	2.80	.00316	.00179	.00348	.00015
%RSD	3.4239	2.6838	28.186	43.245	.53433	1.6575

#1	.01952	104.80	.01025	.00621	.64673	.00915
#2	.01880	101.11	.00863	.00316	.65318	.00886
#3	.02014	106.59	.01472	.00306	.65220	.00904

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		10.000				
Low Limit		-.01000				

Sample Name: 180-37858-A-3-B@10      Acquired: 10/28/2014 20:54:45      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03017	1.4690	-.00151	.00928	7.6728
Stddev	.00186	.0064	.00119	.00436	.2127
%RSD	6.1573	.43279	78.702	47.036	2.7718

#1	.03122	1.4748	-.00055	.01050	7.7009
#2	.02803	1.4699	-.00114	.00443	7.4475
#3	.03127	1.4622	-.00284	.01290	7.8701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2802.0	4527.3	65115.	11466.
Stddev	61.8	94.4	253.	38.
%RSD	2.2068	2.0843	.38910	.33273

#1	2788.2	4507.3	64858.	11424.
#2	2869.5	4630.1	65123.	11475.
#3	2748.2	4444.6	65365.	11499.



Sample Name: 180-37858-A-4-B@10      Acquired: 10/28/2014 20:59:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	2.4787	.04921	.12146	.95905	.00013
Stddev	.00044	.0252	.00039	.00045	.00060	.00001
%RSD	61.595	1.0157	.79246	.37449	.06223	7.2966

#1	.00117	2.5064	.04876	.12123	.95842	.00014
#2	.00030	2.4728	.04940	.12199	.95914	.00012
#3	.00066	2.4571	.04947	.12118	.95960	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.125	.01006	.18961	F 28.136	.31301	66.831
Stddev	.113	.00006	.00089	.208	.00277	.107
%RSD	.28785	.58777	.46782	.73811	.88590	.15969

#1	39.056	.01012	.19063	28.283	.31305	66.806
#2	39.255	.01000	.18898	27.898	.31577	66.948
#3	39.065	.01005	.18923	28.227	.31022	66.739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				25.000		
Low Limit				-.00500		

Sample Name: 180-37858-A-4-B@10      Acquired: 10/28/2014 20:59:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.9914</b>	<b>.01496</b>	<b>2.8704</b>	<b>.34544</b>	<b>.11596</b>	<b>.59342</b>
Stddev	.0210	.00081	.0153	.00198	.00012	.00405
%RSD	.70381	5.3997	.53225	.57268	.10524	.68206

#1	<b>2.9979</b>	<b>.01417</b>	<b>2.8717</b>	<b>.34574</b>	<b>.11582</b>	<b>.59182</b>
#2	<b>3.0084</b>	<b>.01579</b>	<b>2.8850</b>	<b>.34725</b>	<b>.11605</b>	<b>.59803</b>
#3	<b>2.9678</b>	<b>.01491</b>	<b>2.8546</b>	<b>.34333</b>	<b>.11600</b>	<b>.59042</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.08843</b>	<b>F 107.89</b>	<b>.01056</b>	<b>.00187</b>	<b>.67684</b>	<b>.02209</b>
Stddev	.00023	.31	.00096	.00144	.00283	.00073
%RSD	.25922	.28694	9.0590	76.908	.41838	3.2878

#1	<b>.08822</b>	<b>108.24</b>	<b>.01122</b>	<b>.00100</b>	<b>.67437</b>	<b>.02186</b>
#2	<b>.08867</b>	<b>107.69</b>	<b>.00946</b>	<b>.00108</b>	<b>.67993</b>	<b>.02290</b>
#3	<b>.08839</b>	<b>107.73</b>	<b>.01099</b>	<b>.00353</b>	<b>.67622</b>	<b>.02151</b>

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		<b>10.000</b>				
Low Limit		<b>-.01000</b>				

Sample Name: 180-37858-A-4-B@10      Acquired: 10/28/2014 20:59:55      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04527	1.6692	.00206	.01824	F 26.350
Stddev	.00348	.0081	.00107	.00346	.067
%RSD	7.6954	.48603	51.736	18.971	.25237

#1	.04918	1.6676	.00083	.02071	26.427
#2	.04414	1.6780	.00276	.01973	26.307
#3	.04249	1.6620	.00259	.01429	26.318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					25.000
Low Limit					-.02000

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2719.1	4471.5	64082.	11499.
Stddev	4.0	11.2	160.	49.
%RSD	.14639	.24960	.24993	.42644

#1	2718.8	4482.4	63912.	11506.
#2	2723.2	4472.1	64230.	11448.
#3	2715.2	4460.1	64105.	11545.

Sample Name: 180-37858-A-5-B@10      Acquired: 10/28/2014 21:05:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00277	3.3049	.04409	.06513	.53500	.00011
Stddev	.00001	.0038	.00160	.00034	.00151	.00003
%RSD	.42377	.11432	3.6178	.51584	.28271	25.270

#1	.00275	3.3007	.04225	.06531	.53671	.00009
#2	.00277	3.3060	.04506	.06534	.53384	.00015
#3	.00277	3.3081	.04497	.06474	.53444	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.657	.00359	.17163	F 33.310	.27353	61.257
Stddev	.036	.00009	.00039	.062	.00120	.164
%RSD	.26051	2.4432	.22806	.18566	.43839	.26838

#1	13.675	.00352	.17174	33.240	.27465	61.384
#2	13.617	.00369	.17196	33.359	.27227	61.071
#3	13.681	.00357	.17120	33.330	.27368	61.316

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				25.000		
Low Limit				-.00500		

Sample Name: 180-37858-A-5-B@10      Acquired: 10/28/2014 21:05:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1996	.01413	1.2775	.45259	.15613	.91312
Stddev	.0215	.00042	.0243	.00195	.00061	.00670
%RSD	1.7888	3.0044	1.9001	.43195	.39023	.73393

#1	1.2193	.01447	1.2597	.45289	.15552	.91926
#2	1.2028	.01426	1.3052	.45050	.15674	.90597
#3	1.1767	.01365	1.2677	.45437	.15612	.91414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07483	F 109.16	.02604	.00501	.61351	.01550
Stddev	.00079	.09	.00239	.00189	.00329	.00034
%RSD	1.0506	.08552	9.1934	37.768	.53658	2.1930

#1	.07548	109.26	.02824	.00436	.61453	.01511
#2	.07396	109.12	.02639	.00353	.61617	.01563
#3	.07505	109.09	.02349	.00714	.60982	.01575

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		10.000				
Low Limit		-.01000				

Sample Name: 180-37858-A-5-B@10      Acquired: 10/28/2014 21:05:04      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04235	2.5319	.00139	.01402	9.2505
Stddev	.00251	.0124	.00055	.00011	.0200
%RSD	5.9270	.49034	39.352	.75142	.21574

#1	.04189	2.5356	.00113	.01413	9.2700
#2	.04506	2.5181	.00201	.01392	9.2515
#3	.04011	2.5421	.00101	.01402	9.2301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2790.5	4525.0	64847.	11463.
Stddev	7.4	9.1	219.	51.
%RSD	.26442	.20197	.33739	.44652

#1	2782.0	4514.9	65100.	11453.
#2	2794.2	4527.2	64725.	11518.
#3	2795.2	4532.8	64717.	11417.

Sample Name: CCV 1369837      Acquired: 10/28/2014 21:10:12      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.0537</b>	<b>25.186</b>	<b>.52714</b>	<b>2.1015</b>	<b>2.0297</b>	<b>1.9818</b>
Stddev	.0056	.115	.01046	.0353	.0101	.0065
%RSD	.53547	.45508	1.9843	1.6795	.49508	.32765

#1	1.0600	25.234	.52103	2.0923	2.0400	1.9863
#2	1.0489	25.269	.52117	2.0716	2.0292	1.9847
#3	1.0523	25.055	.53922	2.1404	2.0199	1.9743

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>50.497</b>	<b>.52051</b>	<b>2.1005</b>	<b>2.0390</b>	<b>1.8968</b>	<b>25.329</b>
Stddev	.190	.01016	.0464	.0031	.0096	.060
%RSD	.37613	1.9517	2.2093	.15147	.50550	.23860

#1	50.568	.51824	2.0901	2.0424	1.9070	25.355
#2	50.641	.51168	2.0602	2.0362	1.8955	25.372
#3	50.281	.53161	2.1512	2.0385	1.8880	25.260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 21:10:12      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	128.21	2.0322	49.479	1.8501	1.9949	131.04
Stddev	.47	.0072	.194	.0087	.0393	.59
%RSD	.36947	.35397	.39264	.46914	1.9712	.45341

#1	128.57	2.0393	49.530	1.8574	1.9839	131.53
#2	128.40	2.0325	49.643	1.8523	1.9622	131.20
#3	127.68	2.0249	49.265	1.8405	2.0385	130.38

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0821	.51160	.51416	.52314	2.0703	1.9344
Stddev	.0469	.01129	.00816	.00847	.0208	.0406
%RSD	2.2535	2.2061	1.5874	1.6199	1.0027	2.0962

#1	2.0692	.50800	.51064	.52441	2.0743	1.9263
#2	2.0430	.50256	.50836	.51409	2.0888	1.8985
#3	2.1341	.52425	.52350	.53090	2.0478	1.9784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						



Sample Name: CCV 1369837      Acquired: 10/28/2014 21:10:12      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9335	1.9357	.97675	2.1917	1.9925
Stddev	.0095	.0079	.02226	.0085	.0435
%RSD	.49397	.40991	2.2791	.38870	2.1826

#1	1.9340	1.9396	.97225	2.1966	1.9851
#2	1.9428	1.9408	.95709	2.1818	1.9532
#3	1.9237	1.9265	1.0009	2.1966	2.0392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2379.8	4296.7	59876.	11254.
Stddev	46.3	75.3	191.	36.
%RSD	1.9438	1.7522	.31865	.32008

#1	2393.9	4318.3	59734.	11237.
#2	2417.4	4358.7	60093.	11230.
#3	2328.1	4212.9	59801.	11295.

Sample Name: CCB18      Acquired: 10/28/2014 21:14:58      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00167	.00073	.00077	-.00003	.00007
Stddev	.00002	.00972	.00070	.00018	.00015	.00001
%RSD	12.193	581.00	95.344	23.770	560.93	10.235

#1	.00017	.00707	.00029	.00065	-.00011	.00007
#2	.00020	-.01215	.00037	.00069	.00014	.00006
#3	.00022	.00006	.00154	.00098	-.00011	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01087	.00008	-.00005	.00032	.00055	.00213
Stddev	.00099	.00011	.00002	.00040	.00033	.00105
%RSD	9.1358	140.54	38.673	126.55	60.889	49.021

#1	-.01108	-.00002	-.00006	.00046	.00042	.00159
#2	-.01173	.00006	-.00007	-.00014	.00093	.00147
#3	-.00978	.00019	-.00003	.00063	.00030	.00334

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB18      Acquired: 10/28/2014 21:14:58      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00482</b>	<b>-.00083</b>	<b>.02238</b>	<b>.00006</b>	<b>.00157</b>	<b>.00832</b>
Stddev	.03791	.00040	.01485	.00003	.00041	.01012
%RSD	787.29	47.741	66.359	41.412	26.338	121.64

#1	.03437	-.00044	.03641	.00003	.00189	.01932
#2	-.04131	-.00123	.00683	.00008	.00171	-.00060
#3	-.00751	-.00081	.02390	.00008	.00110	.00625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00005</b>	<b>.00055</b>	<b>.00015</b>	<b>.00033</b>	<b>.02319</b>	<b>-.00007</b>
Stddev	.00013	.00108	.00109	.00082	.00968	.00055
%RSD	285.68	196.54	746.55	245.75	41.759	837.15

#1	-.00009	-.00067	-.00095	-.00058	.02036	.00007
#2	.00010	.00095	.00017	.00100	.01524	.00040
#3	-.00015	.00136	.00122	.00057	.03397	-.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB18      Acquired: 10/28/2014 21:14:58      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00561	.00017	.00158	.00165	.00060
Stddev	.00310	.00014	.00072	.00222	.00005
%RSD	55.322	79.145	45.944	134.21	8.7515

#1	.00206	.00033	.00148	-.00090	.00054
#2	.00779	.00006	.00090	.00309	.00064
#3	.00697	.00014	.00234	.00277	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2962.3	4641.2	66262.	11394.
Stddev	4.4	6.7	228.	22.
%RSD	.14999	.14372	.34342	.18932

#1	2964.6	4646.6	66265.	11415.
#2	2965.1	4643.2	66488.	11372.
#3	2957.1	4633.8	66033.	11394.

Sample Name: 180-37858-A-6-B      Acquired: 10/28/2014 21:20:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00785</b>	<b>19.892</b>	<b>.00724</b>	<b>.06500</b>	<b>10.350</b>	<b>.00028</b>
Stddev	.00037	.024	.00299	.00039	.040	.00004
%RSD	4.7524	.11830	41.384	.59470	.38173	12.943

#1	<b>.00827</b>	<b>19.898</b>	<b>.01064</b>	<b>.06487</b>	<b>10.365</b>	<b>.00029</b>
#2	<b>.00755</b>	<b>19.866</b>	<b>.00604</b>	<b>.06543</b>	<b>10.380</b>	<b>.00024</b>
#3	<b>.00773</b>	<b>19.912</b>	<b>.00502</b>	<b>.06470</b>	<b>10.305</b>	<b>.00030</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>131.97</b>	<b>.00347</b>	<b>.86034</b>	<b>.32128</b>	<b>.58068</b>	<b>184.33</b>
Stddev	.06	.00016	.00364	.00157	.00140	.61
%RSD	.04256	4.7272	.42296	.48773	.24040	.32979

#1	<b>132.00</b>	<b>.00342</b>	<b>.86454</b>	<b>.32145</b>	<b>.58152</b>	<b>184.17</b>
#2	<b>131.91</b>	<b>.00365</b>	<b>.85837</b>	<b>.32276</b>	<b>.57907</b>	<b>183.82</b>
#3	<b>132.01</b>	<b>.00334</b>	<b>.85811</b>	<b>.31964</b>	<b>.58145</b>	<b>185.01</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-6-B      Acquired: 10/28/2014 21:20:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>11.265</b>	<b>.04915</b>	<b>6.2973</b>	<b>.62384</b>	<b>.02188</b>	<b>20.085</b>
Stddev	.032	.00061	.0125	.00093	.00074	.014
%RSD	.28318	1.2352	.19785	.14950	3.3876	.07114

#1	11.290	.04972	6.2932	.62294	.02224	20.095
#2	11.276	.04851	6.2874	.62377	.02237	20.069
#3	11.229	.04922	6.3112	.62480	.02103	20.092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.10314</b>	<b>.76682</b>	<b>.00222</b>	<b>.00904</b>	<b>4.5395</b>	<b>.08781</b>
Stddev	.00077	.00250	.00241	.00081	.0105	.00094
%RSD	.74855	.32588	108.37	8.9322	.23106	1.0756

#1	.10399	.76819	.00042	.00990	4.5380	.08887
#2	.10248	.76834	.00496	.00830	4.5298	.08748
#3	.10295	.76394	.00129	.00891	4.5506	.08707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-6-B      Acquired: 10/28/2014 21:20:10      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.14122</b>	<b>1.3992</b>	<b>-.00335</b>	<b>.01927</b>	<b>17.436</b>
Stddev	.00369	.0050	.00140	.00187	.098
%RSD	2.6151	.36043	41.887	9.7136	.56473

#1	.14539	1.4034	-.00237	.01874	17.548
#2	.13837	1.3936	-.00273	.02135	17.397
#3	.13989	1.4006	-.00496	.01772	17.363

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2556.0</b>	<b>4252.5</b>	<b>61205.</b>	<b>11393.</b>
Stddev	8.7	12.5	56.	10.
%RSD	.34162	.29309	.09155	.08799

#1	2545.9	4239.3	61178.	11388.
#2	2560.4	4254.1	61167.	11405.
#3	2561.6	4264.1	61269.	11387.

Sample Name: 180-37858-A-7-B      Acquired: 10/28/2014 21:25:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01662	128.04	.00484	.05653	1.1107	.00024
Stddev	.00000	.19	.00546	.00101	.0018	.00004
%RSD	.02500	.14811	112.85	1.7791	.16235	17.626

#1	.01662	127.84	.00137	.05688	1.1094	.00029
#2	.01662	128.22	.00202	.05732	1.1127	.00021
#3	.01662	128.04	.01113	.05540	1.1099	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	378.88	.00156	1.8339	.56422	1.1089	208.98
Stddev	4.28	.00009	.0032	.00227	.0064	2.34
%RSD	1.1299	6.0096	.17350	.40294	.57976	1.1219

#1	375.23	.00166	1.8371	.56166	1.1077	206.30
#2	377.81	.00152	1.8338	.56501	1.1032	210.00
#3	383.59	.00149	1.8307	.56600	1.1159	210.64

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-37858-A-7-B      Acquired: 10/28/2014 21:25:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.98096</b>	<b>.09930</b>	<b>14.015</b>	<b>.46552</b>	<b>.01175</b>	<b>1.9591</b>
Stddev	.01151	.00131	.064	.00366	.00007	.0037
%RSD	1.1733	1.3174	.45842	.78681	.61457	.18692

#1	<b>.99339</b>	<b>.10047</b>	<b>14.055</b>	<b>.46254</b>	<b>.01181</b>	<b>1.9556</b>
#2	<b>.97066</b>	<b>.09955</b>	<b>13.941</b>	<b>.46442</b>	<b>.01175</b>	<b>1.9629</b>
#3	<b>.97884</b>	<b>.09789</b>	<b>14.050</b>	<b>.46961</b>	<b>.01167</b>	<b>1.9587</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.11936</b>	<b>1.0431</b>	<b>.00001</b>	<b>.00606</b>	<b>6.3643</b>	<b>.16442</b>
Stddev	.00043	.0029	.00105	.00408	.0234	.00128
%RSD	.35798	.27606	8283.8	67.395	.36717	.77776

#1	<b>.11984</b>	<b>1.0456</b>	<b>-.00026</b>	<b>.00499</b>	<b>6.3414</b>	<b>.16489</b>
#2	<b>.11921</b>	<b>1.0400</b>	<b>.00117</b>	<b>.00261</b>	<b>6.3633</b>	<b>.16541</b>
#3	<b>.11903</b>	<b>1.0436</b>	<b>-.00087</b>	<b>.01056</b>	<b>6.3881</b>	<b>.16298</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-7-B      Acquired: 10/28/2014 21:25:18      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.22777</b>	<b>2.5757</b>	<b>-.00621</b>	<b>.03514</b>	<b>3.2844</b>
Stddev	.00266	.0199	.00221	.00301	.0031
%RSD	1.1684	.77209	35.526	8.5683	.09428

#1	.23084	2.5665	-.00853	.03842	3.2878
#2	.22608	2.5621	-.00413	.03250	3.2837
#3	.22640	2.5985	-.00599	.03450	3.2817

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2360.3</b>	<b>4147.6</b>	<b>58377.</b>	<b>11147.</b>
Stddev	9.5	17.6	106.	63.
%RSD	.40137	.42501	.18180	.56559

#1	2352.6	4139.6	58482.	11186.
#2	2357.3	4135.4	58379.	11181.
#3	2370.9	4167.8	58270.	11074.

Sample Name: 180-37858-A-8-B      Acquired: 10/28/2014 21:30:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.02108</b>	<b>272.69</b>	<b>.00838</b>	<b>.10929</b>	<b>1.2867</b>	<b>.00031</b>
Stddev	.00073	.74	.00246	.00022	.0025	.00004
%RSD	3.4684	.27221	29.376	.20029	.19425	13.533

#1	<b>.02035</b>	<b>272.03</b>	<b>.00816</b>	<b>.10917</b>	<b>1.2876</b>	<b>.00030</b>
#2	<b>.02181</b>	<b>272.55</b>	<b>.01094</b>	<b>.10915</b>	<b>1.2887</b>	<b>.00036</b>
#3	<b>.02109</b>	<b>273.49</b>	<b>.00603</b>	<b>.10954</b>	<b>1.2839</b>	<b>.00028</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>363.43</b>	<b>.00306</b>	<b>1.9033</b>	<b>7.5918</b>	<b>2.0532</b>	<b>230.84</b>
Stddev	2.97	.00011	.0060	.0279	.0076	2.38
%RSD	.81611	3.5445	.31622	.36709	.36948	1.0320

#1	<b>362.80</b>	<b>.00297</b>	<b>1.9072</b>	<b>7.5842</b>	<b>2.0460</b>	<b>229.00</b>
#2	<b>360.83</b>	<b>.00304</b>	<b>1.8964</b>	<b>7.5685</b>	<b>2.0526</b>	<b>229.98</b>
#3	<b>366.66</b>	<b>.00318</b>	<b>1.9063</b>	<b>7.6226</b>	<b>2.0611</b>	<b>233.53</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-8-B      Acquired: 10/28/2014 21:30:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4704	.08809	15.048	.56481	.03901	2.4462
Stddev	.0204	.00096	.122	.00678	.00037	.0041
%RSD	1.3843	1.0846	.81139	1.2007	.94799	.16827

#1	1.4911	.08801	14.964	.56003	.03906	2.4415
#2	1.4696	.08908	14.991	.56182	.03861	2.4481
#3	1.4504	.08717	15.188	.57257	.03935	2.4490

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24445	F 32.792	.00494	.00777	5.9482	.14388
Stddev	.00106	.124	.00154	.00304	.0239	.00165
%RSD	.43166	.37768	31.127	39.069	.40103	1.1469

#1	.24558	32.842	.00612	.01083	5.9259	.14248
#2	.24350	32.651	.00320	.00476	5.9454	.14347
#3	.24426	32.883	.00549	.00773	5.9733	.14570

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		10.000				
Low Limit		-.01000				

Sample Name: 180-37858-A-8-B      Acquired: 10/28/2014 21:30:28      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.24119</b>	<b>2.7783</b>	<b>-.00797</b>	<b>.05627</b>	<b>11.093</b>
Stddev	.00738	.0187	.00169	.00294	.047
%RSD	3.0607	.67398	21.209	5.2311	.42475

#1	<b>.24967</b>	<b>2.7619</b>	<b>-.00837</b>	<b>.05304</b>	<b>11.111</b>
#2	<b>.23625</b>	<b>2.7741</b>	<b>-.00611</b>	<b>.05696</b>	<b>11.039</b>
#3	<b>.23764</b>	<b>2.7987</b>	<b>-.00942</b>	<b>.05880</b>	<b>11.128</b>

Check ?	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>	<b>Chk Pass</b>
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2342.2</b>	<b>4169.0</b>	<b>58720.</b>	<b>11133.</b>
Stddev	6.7	7.9	28.	87.
%RSD	.28506	.18962	.04846	.77827

#1	<b>2335.7</b>	<b>4165.2</b>	<b>58691.</b>	<b>11197.</b>
#2	<b>2349.1</b>	<b>4178.1</b>	<b>58722.</b>	<b>11167.</b>
#3	<b>2341.8</b>	<b>4163.6</b>	<b>58747.</b>	<b>11034.</b>

Sample Name: 180-37858-A-8-B SD@5      Acquired: 10/28/2014 21:35:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00411	54.294	.00328	.02139	.25822	.00009
Stddev	.00042	.138	.00095	.00022	.00091	.00004
%RSD	10.173	.25420	28.816	1.0410	.35287	47.504

#1	.00382	54.137	.00435	.02120	.25769	.00006
#2	.00459	54.350	.00254	.02164	.25927	.00014
#3	.00392	54.395	.00296	.02134	.25770	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	76.243	.00069	.38295	1.5716	.42466	49.194
Stddev	.031	.00005	.00057	.0035	.00084	.138
%RSD	.04108	6.8084	.14990	.22262	.19701	.28067

#1	76.228	.00065	.38357	1.5755	.42371	49.049
#2	76.221	.00074	.38284	1.5688	.42528	49.209
#3	76.279	.00069	.38244	1.5705	.42499	49.323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-8-B SD@5      Acquired: 10/28/2014 21:35:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.22410</b>	<b>.01603</b>	<b>3.0830</b>	<b>.12296</b>	<b>.00711</b>	<b>.47753</b>
Stddev	.01522	.00126	.0241	.00065	.00018	.01070
%RSD	6.7905	7.8751	.78274	.52668	2.5919	2.2396

#1	<b>.24156</b>	<b>.01484</b>	<b>3.0570</b>	<b>.12294</b>	<b>.00728</b>	<b>.48859</b>
#2	<b>.21708</b>	<b>.01590</b>	<b>3.0876</b>	<b>.12233</b>	<b>.00713</b>	<b>.46725</b>
#3	<b>.21366</b>	<b>.01736</b>	<b>3.1046</b>	<b>.12362</b>	<b>.00691</b>	<b>.47676</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.04937</b>	<b>6.6017</b>	<b>.00196</b>	<b>.00147</b>	<b>1.1986</b>	<b>.03086</b>
Stddev	.00046	.0088	.00067	.00207	.0071	.00042
%RSD	.92244	.13367	34.047	140.15	.59188	1.3547

#1	<b>.04887</b>	<b>6.6116</b>	<b>.00120</b>	<b>.00103</b>	<b>1.1906</b>	<b>.03135</b>
#2	<b>.04977</b>	<b>6.5948</b>	<b>.00225</b>	<b>.00373</b>	<b>1.2042</b>	<b>.03060</b>
#3	<b>.04945</b>	<b>6.5986</b>	<b>.00244</b>	<b>-.00033</b>	<b>1.2011</b>	<b>.03064</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-37858-A-8-B SD@5      Acquired: 10/28/2014 21:35:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05088	.58883	-.00086	.01051	2.3666
Stddev	.00218	.00155	.00100	.00232	.0056
%RSD	4.2859	.26385	115.76	22.070	.23872

#1	.05339	.58825	-.00099	.01269	2.3713
#2	.04955	.58766	-.00178	.01077	2.3683
#3	.04969	.59060	.00020	.00807	2.3603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2680.0	4534.7	64121.	11568.
Stddev	3.3	4.9	72.	24.
%RSD	.12278	.10911	.11276	.20707

#1	2677.2	4530.3	64055.	11565.
#2	2679.2	4533.6	64110.	11593.
#3	2683.6	4540.0	64198.	11545.



Sample Name: MB 180-122929/1-A      Acquired: 10/28/2014 21:40:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.00169	-.00076	-.00071	-.00001	.00005
Stddev	.00033	.01143	.00151	.00033	.00010	.00000
%RSD	90.663	677.04	200.15	46.632	894.73	8.8180

#1	.00028	-.00302	-.00094	-.00077	.00000	.00005
#2	.00072	.01035	-.00217	-.00035	-.00012	.00005
#3	.00008	-.01239	.00084	-.00100	.00008	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00973	.00017	-.00023	.00023	-.00011	.00227
Stddev	.00324	.00015	.00018	.00008	.00046	.00116
%RSD	33.318	85.972	78.138	35.055	420.40	50.924

#1	-.01341	.00028	-.00008	.00024	.00019	.00094
#2	-.00852	.00023	-.00043	.00015	.00012	.00299
#3	-.00727	.00000	-.00019	.00031	-.00064	.00290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122929/1-A      Acquired: 10/28/2014 21:40:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.06557</b>	<b>-.00078</b>	<b>.00169</b>	<b>.00004</b>	<b>-.00069</b>	<b>.00042</b>
Stddev	.02992	.00061	.02384	.00001	.00004	.00487
%RSD	45.633	78.105	1411.7	26.649	5.9007	1152.7

#1	<b>-.04964</b>	<b>-.00148</b>	<b>-.02583</b>	<b>.00004</b>	<b>-.00065</b>	<b>-.00432</b>
#2	<b>-.04698</b>	<b>-.00049</b>	<b>.01478</b>	<b>.00003</b>	<b>-.00073</b>	<b>.00017</b>
#3	<b>-.10008</b>	<b>-.00037</b>	<b>.01612</b>	<b>.00005</b>	<b>-.00068</b>	<b>.00541</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00047</b>	<b>.00052</b>	<b>-.00053</b>	<b>-.00040</b>	<b>.01557</b>	<b>.00012</b>
Stddev	.00002	.00177	.00116	.00043	.00634	.00059
%RSD	5.1518	339.31	218.76	106.36	40.728	496.20

#1	<b>.00044</b>	<b>.00022</b>	<b>.00047</b>	<b>-.00064</b>	<b>.02280</b>	<b>-.00018</b>
#2	<b>.00049</b>	<b>.00243</b>	<b>-.00025</b>	<b>.00009</b>	<b>.01094</b>	<b>-.00026</b>
#3	<b>.00047</b>	<b>-.00108</b>	<b>-.00180</b>	<b>-.00066</b>	<b>.01297</b>	<b>.00080</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: MB 180-122929/1-A      Acquired: 10/28/2014 21:40:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00156	.00021	-.00118	.00027	.00135
Stddev	.00181	.00010	.00060	.00129	.00012
%RSD	115.70	48.917	50.455	480.91	8.9948

#1	.00173	.00022	-.00186	.00159	.00122
#2	.00328	.00030	-.00095	.00020	.00146
#3	-.00033	.00010	-.00074	-.00099	.00136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2933.8	4568.7	66039.	11423.
Stddev	2.8	8.1	207.	84.
%RSD	.09546	.17666	.31402	.73437

#1	2931.2	4561.4	66075.	11327.
#2	2936.7	4567.3	66226.	11481.
#3	2933.4	4577.4	65816.	11461.

Sample Name: LCS 180-122929/2-A      Acquired: 10/28/2014 21:45:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04954	1.9444	.49322	.99327	1.9835	.04903
Stddev	.00015	.0113	.00108	.00097	.0028	.00034
%RSD	.30615	.58230	.21860	.09730	.14240	.69487

#1	.04954	1.9529	.49415	.99363	1.9804	.04866
#2	.04969	1.9487	.49204	.99217	1.9859	.04933
#3	.04938	1.9315	.49348	.99400	1.9841	.04910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.115	.04916	.48673	.19674	.24096	1.0051
Stddev	.092	.00014	.00140	.00164	.00185	.0066
%RSD	.18756	.29335	.28716	.83382	.76695	.65934

#1	49.129	.04902	.48529	.19704	.24203	.99981
#2	49.200	.04931	.48682	.19821	.24203	1.0126
#3	49.017	.04917	.48808	.19497	.23883	1.0030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122929/2-A      Acquired: 10/28/2014 21:45:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.652</b>	<b>1.0078</b>	<b>48.643</b>	<b>.46414</b>	<b>1.0024</b>	<b>51.771</b>
Stddev	.072	.0015	.117	.00113	.0009	.132
%RSD	.14449	.14761	.24124	.24265	.09125	.25578

#1	49.692	1.0068	48.514	.46513	1.0015	51.726
#2	49.694	1.0095	48.744	.46439	1.0023	51.920
#3	49.569	1.0072	48.670	.46292	1.0033	51.667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.48243</b>	<b>.47028</b>	<b>.50236</b>	<b>.48624</b>	<b>9.8979</b>	<b>1.8859</b>
Stddev	.00103	.00220	.00386	.00158	.0284	.0008
%RSD	.21278	.46804	.76923	.32413	.28678	.04144

#1	.48125	.46874	.50659	.48713	9.8933	1.8864
#2	.48295	.46931	.50149	.48716	9.9283	1.8850
#3	.48310	.47280	.49901	.48442	9.8721	1.8864

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCS 180-122929/2-A      Acquired: 10/28/2014 21:45:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	<b>.94740</b>	<b>.97238</b>	<b>.45927</b>	<b>.51467</b>	<b>.47710</b>
Stddev	.01224	.00555	.00168	.00281	.00120
%RSD	1.2922	.57037	.36654	.54580	.25111

#1	<b>.95115</b>	<b>.97797</b>	<b>.45915</b>	<b>.51273</b>	<b>.47572</b>
#2	<b>.93373</b>	<b>.97230</b>	<b>.45765</b>	<b>.51790</b>	<b>.47792</b>
#3	<b>.95734</b>	<b>.96687</b>	<b>.46101</b>	<b>.51339</b>	<b>.47765</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>2528.1</b>	<b>4318.0</b>	<b>61210.</b>	<b>11134.</b>
Stddev	4.2	8.7	400.	34.
%RSD	.16623	.20093	.65277	.30176

#1	2525.4	4308.2	61040.	11110.
#2	2532.9	4324.7	60923.	11119.
#3	2525.9	4321.0	61666.	11172.

Sample Name: LCSD 180-122929/3-A      Acquired: 10/28/2014 21:50:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04931	1.9203	.49707	.99153	1.9677	.04847
Stddev	.00024	.0190	.00423	.00283	.0081	.00022
%RSD	.48419	.99126	.85191	.28575	.41066	.46384

#1	.04958	1.9369	.50175	.99373	1.9757	.04873
#2	.04921	1.8995	.49597	.99253	1.9678	.04831
#3	.04913	1.9246	.49350	.98833	1.9595	.04838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.969	.04911	.48635	.19581	.23738	.99432
Stddev	.177	.00023	.00298	.00106	.00052	.00676
%RSD	.36052	.47236	.61311	.54149	.21916	.68005

#1	49.133	.04933	.48976	.19698	.23786	1.0020
#2	48.992	.04912	.48507	.19556	.23683	.99165
#3	48.782	.04887	.48422	.19490	.23746	.98930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: LCSD 180-122929/3-A      Acquired: 10/28/2014 21:50:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>49.803</b>	<b>.99831</b>	<b>48.144</b>	<b>.45546</b>	<b>1.0111</b>	<b>51.839</b>
Stddev	.128	.00076	.288	.00106	.0031	.082
%RSD	.25751	.07609	.59890	.23233	.30867	.15833

#1	49.774	.99918	48.476	.45668	1.0146	51.919
#2	49.943	.99796	47.953	.45493	1.0101	51.842
#3	49.691	.99778	48.003	.45477	1.0085	51.755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.48188</b>	<b>.47052</b>	<b>.50649</b>	<b>.48901</b>	<b>9.8837</b>	<b>1.9055</b>
Stddev	.00095	.00195	.00340	.00528	.0194	.0084
%RSD	.19698	.41536	.67054	1.0789	.19603	.44340

#1	.48296	.47274	.51024	.49428	9.9057	1.9152
#2	.48153	.46979	.50558	.48903	9.8761	1.9022
#3	.48116	.46904	.50363	.48372	9.8692	1.8993

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: LCSD 180-122929/3-A      Acquired: 10/28/2014 21:50:42      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93509	.97239	.45840	.51965	.47753
Stddev	.01224	.00714	.00209	.00142	.00314
%RSD	1.3087	.73410	.45536	.27282	.65805

#1	.94866	.98063	.46068	.52045	.48103
#2	.93172	.96802	.45659	.52048	.47662
#3	.92489	.96853	.45793	.51801	.47495

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2505.5	4280.7	60938.	11228.
Stddev	10.6	19.0	35.	49.
%RSD	.42424	.44457	.05684	.43688

#1	2494.1	4261.4	60904.	11173.
#2	2507.2	4281.2	60936.	11241.
#3	2515.2	4299.5	60973.	11268.

Sample Name: 180-38080-A-1-B      Acquired: 10/28/2014 21:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00023</b>	<b>.29274</b>	<b>-.00023</b>	<b>.17375</b>	<b>.01022</b>	<b>.00003</b>
Stddev	.00019	.01510	.00115	.00088	.00015	.00006
%RSD	83.732	5.1590	493.44	.50799	1.4839	221.43

#1	<b>-.00003</b>	<b>.29997</b>	<b>-.00154</b>	<b>.17377</b>	<b>.01025</b>	<b>-.00002</b>
#2	<b>-.00041</b>	<b>.27538</b>	<b>.00025</b>	<b>.17285</b>	<b>.01035</b>	<b>.00009</b>
#3	<b>-.00023</b>	<b>.30286</b>	<b>.00059</b>	<b>.17462</b>	<b>.01005</b>	<b>.00001</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.4031</b>	<b>.00035</b>	<b>.00041</b>	<b>.00234</b>	<b>.12731</b>	<b>6.1070</b>
Stddev	.0033	.00012	.00015	.00025	.00073	.0197
%RSD	.13807	33.903	36.640	10.661	.57501	.32250

#1	<b>2.3994</b>	<b>.00037</b>	<b>.00058</b>	<b>.00250</b>	<b>.12772</b>	<b>6.1279</b>
#2	<b>2.4043</b>	<b>.00045</b>	<b>.00029</b>	<b>.00247</b>	<b>.12774</b>	<b>6.1042</b>
#3	<b>2.4057</b>	<b>.00022</b>	<b>.00036</b>	<b>.00205</b>	<b>.12646</b>	<b>6.0888</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38080-A-1-B      Acquired: 10/28/2014 21:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>11.344</b>	<b>.00176</b>	<b>1.1160</b>	<b>.58912</b>	<b>.00231</b>	<b>14.421</b>
Stddev	.013	.00035	.0321	.00261	.00007	.022
%RSD	.11496	20.043	2.8745	.44294	3.1586	.15374

#1	11.353	.00183	1.1161	.59157	.00239	14.446
#2	11.329	.00207	1.0839	.58940	.00225	14.413
#3	11.349	.00138	1.1481	.58638	.00228	14.404

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00515</b>	<b>.27726</b>	<b>.00000</b>	<b>.00062</b>	<b>.74084</b>	<b>.00444</b>
Stddev	.00031	.00189	.00017	.00163	.00858	.00016
%RSD	6.0754	.68205	3772.6	264.08	1.1579	3.5673

#1	.00545	.27599	.00015	-.00126	.73757	.00460
#2	.00516	.27636	-.00019	.00142	.75057	.00444
#3	.00483	.27943	.00005	.00169	.73437	.00428

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38080-A-1-B      Acquired: 10/28/2014 21:55:32      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01244	.00118	-.00073	-.00056	.08936
Stddev	.00416	.00010	.00025	.00237	.00060
%RSD	33.423	8.6074	34.065	425.24	.67074

#1	.01724	.00107	-.00099	-.00117	.08904
#2	.00984	.00125	-.00049	-.00256	.08899
#3	.01025	.00124	-.00071	.00206	.09005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2814.3	4488.9	64130.	11267.
Stddev	4.3	3.9	185.	66.
%RSD	.15137	.08677	.28852	.58530

#1	2816.0	4490.2	63936.	11199.
#2	2817.4	4491.9	64304.	11272.
#3	2809.4	4484.5	64149.	11331.

Sample Name: 180-38109-B-1-B      Acquired: 10/28/2014 22:00:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.02878	.00021	.13877	.00148	.00005
Stddev	.00007	.00653	.00068	.00161	.00008	.00005
%RSD	28.817	22.688	323.74	1.1570	5.6166	95.566

#1	.00017	.02257	.00049	.14055	.00147	.00001
#2	.00030	.02819	-.00057	.13832	.00156	.00010
#3	.00021	.03559	.00071	.13743	.00139	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.67156	.00240	.00177	.00315	.00371	.01582
Stddev	.00284	.00004	.00019	.00033	.00034	.00135
%RSD	.42230	1.7423	10.717	10.553	9.1093	8.5085

#1	.67470	.00243	.00190	.00314	.00332	.01558
#2	.67079	.00235	.00186	.00349	.00392	.01461
#3	.66919	.00242	.00155	.00282	.00390	.01727

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38109-B-1-B      Acquired: 10/28/2014 22:00:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.10383</b>	<b>-.00103</b>	<b>.18977</b>	<b>.00288</b>	<b>.00205</b>	<b>5.8246</b>
Stddev	.02305	.00098	.01759	.00001	.00016	.0187
%RSD	22.198	95.036	9.2714	.38988	7.5841	.32160

#1	.07772	-.00184	.20964	.00288	.00206	5.8251
#2	.11243	-.00132	.18352	.00287	.00220	5.8430
#3	.12135	.00006	.17616	.00290	.00189	5.8056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00358</b>	<b>.00229</b>	<b>.00138</b>	<b>.00066</b>	<b>.05000</b>	<b>.00146</b>
Stddev	.00021	.00044	.00074	.00032	.00205	.00053
%RSD	5.9674	19.069	53.897	47.864	4.0913	36.097

#1	.00343	.00180	.00223	.00036	.05013	.00171
#2	.00382	.00241	.00088	.00099	.04790	.00180
#3	.00349	.00265	.00103	.00063	.05198	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38109-B-1-B      Acquired: 10/28/2014 22:00:41      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00229	.00262	-.00092	-.00051	.00761
Stddev	.00311	.00004	.00169	.00211	.00015
%RSD	136.03	1.6297	184.13	416.75	1.9266

#1	.00094	.00266	-.00078	.00142	.00778
#2	.00585	.00257	.00070	-.00018	.00752
#3	.00007	.00262	-.00267	-.00276	.00753

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2882.6	4535.7	65003.	11312.
Stddev	23.5	32.9	133.	77.
%RSD	.81637	.72528	.20398	.67963

#1	2855.4	4497.8	65150.	11245.
#2	2897.2	4554.3	64891.	11295.
#3	2895.1	4555.1	64969.	11396.

Sample Name: 180-38109-B-1-B SD@5      Acquired: 10/28/2014 22:05:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00002</b>	<b>.00443</b>	<b>.00036</b>	<b>.02699</b>	<b>.00020</b>	<b>.00001</b>
Stddev	.00009	.01043	.00087	.00026	.00003	.00004
%RSD	539.52	235.58	242.24	.97726	15.692	593.80

#1	<b>-.00002</b>	<b>.00133</b>	<b>.00044</b>	<b>.02678</b>	<b>.00016</b>	<b>.00001</b>
#2	<b>.00007</b>	<b>.01606</b>	<b>-.00055</b>	<b>.02729</b>	<b>.00022</b>	<b>-.00004</b>
#3	<b>-.00011</b>	<b>-.00410</b>	<b>.00119</b>	<b>.02690</b>	<b>.00020</b>	<b>.00005</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(ln2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.14436</b>	<b>.00048</b>	<b>.00041</b>	<b>.00053</b>	<b>.00087</b>	<b>.00432</b>
Stddev	.00131	.00005	.00014	.00030	.00027	.00147
%RSD	.91086	11.358	35.358	57.556	31.457	34.083

#1	<b>.14405</b>	<b>.00053</b>	<b>.00055</b>	<b>.00077</b>	<b>.00110</b>	<b>.00555</b>
#2	<b>.14323</b>	<b>.00043</b>	<b>.00026</b>	<b>.00062</b>	<b>.00094</b>	<b>.00269</b>
#3	<b>.14580</b>	<b>.00047</b>	<b>.00042</b>	<b>.00019</b>	<b>.00057</b>	<b>.00471</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Sample Name: 180-38109-B-1-B SD@5      Acquired: 10/28/2014 22:05:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00895</b>	<b>-.00109</b>	<b>.03785</b>	<b>.00052</b>	<b>-.00014</b>	<b>1.1456</b>
Stddev	.01305	.00031	.00264	.00001	.00006	.0056
%RSD	145.85	28.705	6.9772	2.4171	46.052	.48707

#1	.00017	-.00075	.03736	.00053	-.00007	1.1464
#2	-.00311	-.00114	.04070	.00051	-.00020	1.1506
#3	-.02389	-.00137	.03548	.00051	-.00014	1.1396

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.00087</b>	<b>.00092</b>	<b>.00169</b>	<b>-.00093</b>	<b>.01224</b>	<b>.00010</b>
Stddev	.00028	.00084	.00052	.00215	.00269	.00009
%RSD	32.758	91.729	30.991	232.47	21.966	87.188

#1	.00111	.00052	.00228	-.00310	.00933	.00001
#2	.00055	.00035	.00130	-.00087	.01276	.00018
#3	.00094	.00189	.00149	.00120	.01464	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: 180-38109-B-1-B SD@5      Acquired: 10/28/2014 22:05:52      Type: Unk  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00063	.00057	-.00172	.00240
Stddev	.00433	.00008	.00112	.00076	.00009
%RSD	34786.	13.161	196.22	43.937	3.5514

#1	-.00388	.00067	.00105	-.00166	.00231
#2	.00467	.00053	-.00071	-.00100	.00243
#3	-.00075	.00068	.00138	-.00251	.00247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2962.0	4650.1	66716.	11509.
Stddev	7.3	11.1	190.	58.
%RSD	.24765	.23945	.28477	.50700

#1	2969.5	4662.4	66862.	11445.
#2	2961.5	4647.4	66784.	11523.
#3	2954.9	4640.6	66501.	11560.

Sample Name: CCV 1369837      Acquired: 10/28/2014 22:11:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0380	25.082	.51775	2.0637	2.0115	1.9807
Stddev	.0136	.095	.00155	.0087	.0054	.0042
%RSD	1.3120	.37919	.29861	.42052	.26818	.21351

#1	1.0423	25.034	.51603	2.0551	2.0076	1.9791
#2	1.0490	25.021	.51820	2.0637	2.0092	1.9774
#3	1.0228	25.192	.51902	2.0724	2.0176	1.9854

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.329	.51361	2.0746	1.9957	1.9112	25.413
Stddev	.088	.00227	.0074	.0329	.0039	.055
%RSD	.17494	.44268	.35591	1.6488	.20297	.21510

#1	50.296	.51151	2.0695	2.0129	1.9067	25.375
#2	50.263	.51330	2.0713	2.0164	1.9133	25.389
#3	50.429	.51602	2.0831	1.9578	1.9135	25.476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 22:11:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.44	2.0134	49.671	1.8680	1.9710	129.54
Stddev	.43	.0088	.106	.0027	.0091	.54
%RSD	.33942	.43647	.21434	.14502	.46118	.41587

#1	126.20	2.0066	49.583	1.8711	1.9633	129.30
#2	126.19	2.0104	49.642	1.8671	1.9686	129.17
#3	126.94	2.0233	49.790	1.8659	1.9810	130.16

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0573	.50762	.50533	.51071	2.0400	1.9075
Stddev	.0073	.00211	.00328	.00256	.0225	.0097
%RSD	.35250	.41512	.64834	.50220	1.1021	.50981

#1	2.0528	.50525	.50271	.51052	2.0442	1.8964
#2	2.0533	.50928	.50429	.50824	2.0156	1.9113
#3	2.0656	.50833	.50901	.51336	2.0600	1.9148

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 1369837      Acquired: 10/28/2014 22:11:03      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9381	1.9318	.96535	2.1291	1.9668
Stddev	.0117	.0007	.00179	.0318	.0040
%RSD	.60325	.03789	.18555	1.4928	.20616

#1	1.9263	1.9326	.96505	2.1440	1.9663
#2	1.9497	1.9313	.96373	2.1507	1.9630
#3	1.9383	1.9314	.96727	2.0926	1.9711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2417.7	4369.5	61053.	11212.
Stddev	10.0	18.9	829.	17.
%RSD	.41338	.43331	1.3579	.15025

#1	2426.5	4386.6	60735.	11204.
#2	2419.7	4372.8	60430.	11231.
#3	2406.8	4349.2	61993.	11200.

Sample Name: CCB19      Acquired: 10/28/2014 22:15:49      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Ag	Al	As	B_	Ba	Be
Line	328.068 {103}	308.215 {109}	189.042 {478}	182.641 {485}	455.403 { 74}	313.042 {108}
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00076	.00145	.00077	.00006	.00014
Stddev	.00016	.00273	.00148	.00044	.00005	.00002
%RSD	4656.2	357.17	101.88	57.081	71.568	17.121

#1	-.00002	.00025	-.00008	.00073	.00003	.00014
#2	-.00015	.00371	.00157	.00123	.00012	.00012
#3	.00016	-.00167	.00287	.00035	.00005	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu	Fe
Line	317.933 {106}	228.802 {447}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
IS Ref	(Y_3710)	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00804	-.00002	.00011	.00023	.00037	.00239
Stddev	.00172	.00009	.00020	.00008	.00035	.00208
%RSD	21.459	475.93	183.30	34.355	95.219	86.873

#1	-.00973	.00002	.00031	.00016	.00055	.00380
#2	-.00809	-.00013	.00011	.00023	-.00004	.00000
#3	-.00628	.00005	-.00009	.00032	.00059	.00338

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB19      Acquired: 10/28/2014 22:15:49      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	K_	Li	Mg	Mn	Mo	Na
Line	766.490 { 44}	670.784 { 50}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00462</b>	<b>-.00025</b>	<b>.00878</b>	<b>.00007</b>	<b>.00128</b>	<b>.00874</b>
Stddev	.00727	.00021	.00640	.00006	.00052	.00827
%RSD	157.43	85.789	72.860	79.792	40.253	94.647

#1	<b>-.00527</b>	<b>-.00041</b>	<b>.01152</b>	<b>.00011</b>	<b>.00184</b>	<b>.00047</b>
#2	<b>.00296</b>	<b>-.00001</b>	<b>.00147</b>	<b>.00009</b>	<b>.00120</b>	<b>.01700</b>
#3	<b>-.01153</b>	<b>-.00033</b>	<b>.01337</b>	<b>.00001</b>	<b>.00081</b>	<b>.00874</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ni	Pb	Sb	Se	Si	Sn
Line	231.604 {446}	220.353 {453}	217.581 {455}	196.090 {472}	251.611 {134}	189.989 {477}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-.00007</b>	<b>.00082</b>	<b>-.00017</b>	<b>.00047</b>	<b>.00410</b>	<b>-.00036</b>
Stddev	.00030	.00062	.00100	.00066	.00322	.00063
%RSD	406.71	75.718	597.31	140.90	78.443	172.79

#1	<b>.00027</b>	<b>.00011</b>	<b>.00098</b>	<b>-.00024</b>	<b>.00645</b>	<b>-.00108</b>
#2	<b>-.00024</b>	<b>.00114</b>	<b>-.00082</b>	<b>.00059</b>	<b>.00044</b>	<b>-.00012</b>
#3	<b>-.00026</b>	<b>.00122</b>	<b>-.00066</b>	<b>.00106</b>	<b>.00541</b>	<b>.00010</b>

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB19      Acquired: 10/28/2014 22:15:49      Type: QC  
Method: PITT-6500ICP-2(v313)      Mode: CONC      Corr. Factor: 1.000000  
User: RGood      Custom ID1: C41028B      Custom ID2: RJG      Custom ID3: Int: 1348720  
Comment: TestAmerica Pittsburgh ICP Metals Analysis - Inst 6500ICP2

Elem	Sr	Ti	Ti	V_	Zn
Line	346.446 { 97}	337.280 {100}	190.856 {477}	290.882 {116}	206.200 {463}
IS Ref	(Y_3710)	(Y_3710)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00520	.00012	.00055	-.00020	.00016
Stddev	.00353	.00005	.00037	.00121	.00010
%RSD	68.007	40.131	67.739	616.08	62.247

#1	.00799	.00013	.00041	-.00032	.00011
#2	.00123	.00007	.00097	.00107	.00027
#3	.00637	.00017	.00026	-.00134	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Line	230.606 {446}	224.306 {450}	360.073 { 94}	371.030 { 91}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2938.2	4606.1	66253.	11425.
Stddev	47.1	74.2	327.	24.
%RSD	1.6045	1.6107	.49374	.21275

#1	2883.9	4520.5	65891.	11435.
#2	2962.1	4649.3	66527.	11442.
#3	2968.6	4648.7	66341.	11397.



## Dilution Corrected Concentrations

STD1 1388761NT STD

11/4/2014 1:40:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	99.245%	0.003	-0.312	0.045	0.000	-0.049	0.001	-0.094
2	13:41:08	100.871%	0.003	0.389	0.022	0.000	-0.038	-0.081	0.012
3	13:41:28	99.884%	-0.006	-0.077	-0.067	0.000	0.087	0.080	0.082
X		100.000%	-0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
σ		0.819%	0.005	0.357	0.059	0.000	0.076	0.081	0.089
%RSD		0.819	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	-0.020	-0.045	0.000	-0.074	0.003	0.766	99.637%	0.046
2	13:41:08	0.039	-0.062	0.000	-0.205	-3.299	-0.570	100.817%	-0.034
3	13:41:28	-0.019	0.106	0.000	0.279	3.296	-0.196	99.545%	-0.011
X		-0.000	0.000	0.000	-0.000	-0.000	-0.000	100.000%	-0.000
σ		0.034	0.092	0.000	0.250	3.297	0.689	0.709%	0.041
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.709	0.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	-0.003	-0.004	0.079	0.771	0.107	0.002	-0.004	0.029
2	13:41:08	-0.007	-0.005	-0.039	-0.194	-0.382	0.000	0.005	-0.010
3	13:41:28	0.009	0.009	-0.040	-0.578	0.276	-0.002	-0.001	-0.019
X		-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000	0.000
σ		0.008	0.008	0.068	0.695	0.342	0.002	0.004	0.025
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	-0.025	-0.064	0.005	0.039	-0.044	0.168	0.000	0.000
2	13:41:08	-0.020	-0.035	-0.017	-0.009	-0.080	-0.030	0.000	0.002
3	13:41:28	0.045	0.099	0.012	-0.031	0.124	-0.138	0.000	-0.002
X		0.000	-0.000	-0.000	0.000	-0.000	0.000	0.000	-0.000
σ		0.039	0.087	0.015	0.036	0.109	0.155	0.000	0.002
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	98.486%	0.012	0.008	99.046%	-0.026	-0.034	0.015	0.007
2	13:41:08	100.647%	-0.009	-0.003	100.274%	0.002	0.021	0.003	0.004
3	13:41:28	100.868%	-0.003	-0.005	100.679%	0.025	0.014	-0.018	-0.011
X		100.000%	-0.000	0.000	100.000%	0.000	-0.000	-0.000	-0.000
σ		1.316%	0.011	0.007	0.850%	0.025	0.030	0.017	0.010
%RSD		1.316	0.000	0.000	0.850	0.000	0.000	0.000	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:40:49	98.402%	-0.022	-0.021	0.001	0.000	0.002	98.020%	97.770%
2	13:41:08	100.555%	-0.014	0.020	-0.023	-0.005	-0.004	100.181%	100.821%
3	13:41:28	101.043%	0.037	0.001	0.022	0.005	0.002	101.799%	101.410%
X		100.000%	-0.000	-0.000	0.000	-0.000	-0.000	100.000%	100.000%
σ		1.405%	0.032	0.020	0.022	0.005	0.004	1.896%	1.954%
%RSD		1.405	0.000	0.000	0.000	0.000	0.000	1.896	1.954
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:40:49	0.003	0.003	0.000	0.003	0.001	99.020%		
2	13:41:08	-0.002	-0.001	0.002	-0.001	0.000	100.280%		
3	13:41:28	-0.001	-0.002	-0.002	-0.002	-0.002	100.700%		
X		0.000	0.000	0.000	0.000	-0.000	100.000%		
σ		0.003	0.002	0.002	0.002	0.002	0.874%		
%RSD		0.000	0.000	0.000	0.000	0.000	0.874		

STD2 1369901

11/4/2014 1:44:07 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	86.999%	198.300	0.816	1.471	0.000	99190.000	98600.000	98740.000
2	13:44:27	89.020%	201.400	1.501	1.198	0.000	99850.000	100300.000	100300.000
3	13:44:46	90.670%	200.300	1.469	1.433	0.000	101000.000	101000.000	101000.000
x		88.896%	200.000	1.262	1.367	0.000	100000.000	100000.000	100000.000
σ		1.838%	1.551	0.387	0.148	0.000	897.200	1258.000	1146.000
%RSD		2.068	0.776	30.650	10.830	0.000	0.897	1.258	1.146
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	981.800	16.460	0.000	98380.000	97260.000	98110.000	91.646%	0.129
2	13:44:27	999.700	14.610	0.000	100500.000	100600.000	100600.000	90.591%	0.206
3	13:44:46	1018.000	14.410	0.000	101100.000	102200.000	101300.000	91.849%	0.153
x		1000.000	15.160	0.000	100000.000	100000.000	100000.000	91.362%	0.163
σ		18.320	1.130	0.000	1442.000	2503.000	1666.000	0.676%	0.039
%RSD		1.832	7.450	0.000	1.442	2.503	1.666	0.739	24.220
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	196.500	195.600	989.600	49450.000	49530.000	197.100	196.200	196.400
2	13:44:27	201.100	202.800	1009.000	50390.000	50230.000	202.000	201.500	202.000
3	13:44:46	202.400	201.600	1002.000	50160.000	50230.000	201.000	202.400	201.600
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		3.100	3.828	9.639	492.700	406.200	2.595	3.347	3.150
%RSD		1.550	1.914	0.964	0.985	0.813	1.297	1.673	1.575
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	197.700	195.600	198.500	197.400	197.000	196.000	0.000	198.900
2	13:44:27	201.200	202.500	202.800	201.300	200.700	200.800	0.000	200.700
3	13:44:46	201.100	201.800	198.700	201.300	202.400	203.200	0.000	200.400
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		2.017	3.785	2.441	2.257	2.747	3.653	0.000	0.994
%RSD		1.008	1.893	1.220	1.128	1.373	1.826	0.000	0.497
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	88.306%	0.279	0.162	80.245%	197.500	198.300	198.600	198.300
2	13:44:27	89.851%	0.522	0.145	80.926%	201.200	200.800	200.800	201.200
3	13:44:46	91.074%	0.605	0.203	81.287%	201.300	200.900	200.600	200.500
x		89.744%	0.469	0.170	80.819%	200.000	200.000	200.000	200.000
σ		1.387%	0.170	0.029	0.529%	2.122	1.481	1.217	1.548
%RSD		1.546	36.160	17.280	0.655	1.061	0.741	0.608	0.774
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:44:07	85.418%	0.013	0.241	0.182	199.600	199.000	88.219%	87.647%
2	13:44:27	86.229%	0.122	0.241	0.288	200.200	200.400	89.149%	90.101%
3	13:44:46	87.803%	0.135	0.208	0.218	200.200	200.600	90.809%	90.507%
x		86.483%	0.090	0.230	0.229	200.000	200.000	89.392%	89.418%
σ		1.213%	0.067	0.019	0.054	0.321	0.864	1.312%	1.548%
%RSD		1.402	74.680	8.095	23.650	0.160	0.432	1.468	1.731
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:44:07	191.600	192.400	188.800	191.800	190.200	85.881%		
2	13:44:27	201.500	201.300	200.800	201.100	201.200	82.946%		
3	13:44:46	206.900	206.300	210.400	207.100	208.600	81.555%		
x		200.000	200.000	200.000	200.000	200.000	83.460%		
σ		7.772	7.022	10.800	7.745	9.225	2.208%		
%RSD		3.886	3.511	5.400	3.872	4.613	2.646		

STD3 1369902

11/4/2014 1:47:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	92.867%	0.041	203.300	199.100	0.000	36.460	33.010	32.530
2	13:47:46	93.567%	0.058	200.900	202.200	0.000	36.440	33.740	33.730
3	13:48:05	94.463%	0.040	195.800	198.700	0.000	35.010	31.000	32.630
X		93.632%	0.046	200.000	200.000	0.000	35.970	32.580	32.960
σ		0.800%	0.010	3.815	1.883	0.000	0.830	1.417	0.664
%RSD		0.855	22.750	1.907	0.942	0.000	2.308	4.350	2.015
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	27.880	10060.000	0.000	40.290	34.090	88.880	99.729%	198.400
2	13:47:46	28.280	9998.000	0.000	38.180	37.050	88.830	100.545%	199.600
3	13:48:05	28.090	9941.000	0.000	35.920	30.120	88.360	101.671%	202.000
X		28.080	10000.000	0.000	38.130	33.750	88.690	100.648%	200.000
σ		0.202	60.480	0.000	2.184	3.475	0.283	0.975%	1.842
%RSD		0.719	0.605	0.000	5.729	10.290	0.319	0.969	0.921
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	0.075	0.010	0.312	69.100	69.490	0.066	0.306	0.012
2	13:47:46	0.055	0.023	0.297	50.910	50.370	0.058	0.093	-0.020
3	13:48:05	0.045	0.029	0.301	38.310	38.250	0.061	0.123	-0.005
X		0.059	0.021	0.303	52.770	52.700	0.062	0.174	-0.005
σ		0.015	0.010	0.008	15.480	15.750	0.004	0.116	0.016
%RSD		26.170	48.020	2.603	29.340	29.890	6.864	66.450	347.800
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	0.017	1.542	1.551	0.018	0.362	-0.031	0.000	0.075
2	13:47:46	0.028	1.469	1.603	0.077	0.409	0.119	0.000	0.076
3	13:48:05	0.023	1.467	1.367	0.114	-0.087	0.512	0.000	0.086
X		0.023	1.493	1.507	0.070	0.228	0.200	0.000	0.079
σ		0.005	0.042	0.124	0.048	0.274	0.281	0.000	0.006
%RSD		23.280	2.844	8.245	69.170	120.300	140.200	0.000	7.537
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	95.927%	194.800	194.700	95.379%	0.009	0.006	0.218	-0.143
2	13:47:46	99.171%	201.700	200.500	97.038%	-0.017	0.034	0.072	-0.326
3	13:48:05	99.995%	203.500	204.800	98.174%	0.067	0.061	0.172	-0.142
X		98.364%	200.000	200.000	96.864%	0.020	0.034	0.154	-0.204
σ		2.151%	4.564	5.061	1.406%	0.043	0.027	0.075	0.106
%RSD		2.187	2.282	2.531	1.451	219.800	80.910	48.610	51.970
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:47:27	95.197%	199.300	198.400	198.300	0.081	0.236	93.781%	93.469%
2	13:47:46	98.992%	199.400	199.800	199.100	0.121	0.286	97.880%	97.799%
3	13:48:05	100.047%	201.200	201.700	202.600	0.092	0.225	100.598%	100.244%
X		98.079%	200.000	200.000	200.000	0.098	0.249	97.420%	97.171%
σ		2.551%	1.062	1.633	2.259	0.021	0.033	3.432%	3.431%
%RSD		2.601	0.531	0.816	1.129	21.410	13.110	3.523	3.531
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:47:27	0.063	0.069	0.081	0.078	0.079	95.295%		
2	13:47:46	0.061	0.063	0.070	0.066	0.072	96.692%		
3	13:48:05	0.073	0.071	0.075	0.072	0.077	98.141%		
X		0.066	0.068	0.075	0.072	0.076	96.709%		
σ		0.006	0.004	0.006	0.006	0.004	1.423%		
%RSD		9.185	5.825	7.410	8.944	4.602	1.472		

ICV 1369904 11/4/2014 1:50:47 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	96.761%	79.920	78.250	80.650	0.000	38880.000	38270.000	38170.000
2	13:51:06	96.560%	81.370	77.850	78.580	0.000	38910.000	38290.000	38390.000
3	13:51:25	96.677%	78.030	78.330	78.400	0.000	38960.000	38230.000	38190.000
X		96.666%	99.720%	97.678%	99.013%	0.000	97.301%	95.657%	95.629%
σ		0.101%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.105	2.099	0.330	1.573	0.000	0.104	0.073	0.318
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	391.800	4196.000	0.000	38770.000	37680.000	37890.000	101.182%	78.500
2	13:51:06	394.100	4323.000	0.000	38800.000	38020.000	38250.000	101.454%	78.220
3	13:51:25	391.000	4344.000	0.000	38540.000	37940.000	37910.000	101.575%	78.430
X		98.080%	107.194%	0.000	96.759%	94.708%	95.041%	101.404%	97.982%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.201%	n/a
%RSD		0.410	1.869	0.000	0.378	0.474	0.541	0.199	0.182
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	76.710	77.870	389.800	19680.000	19620.000	79.280	81.160	81.560
2	13:51:06	76.540	77.820	385.700	19450.000	19380.000	78.910	79.290	80.910
3	13:51:25	75.830	77.740	386.600	19500.000	19380.000	78.050	79.450	80.020
X		95.451%	97.266%	96.841%	97.716%	97.298%	98.432%	99.956%	101.037%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.609	0.083	0.559	0.636	0.695	0.803	1.299	0.953
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	81.950	83.730	85.380	81.850	85.880	85.240	0.000	80.560
2	13:51:06	81.180	84.430	85.230	82.800	85.440	84.680	0.000	80.190
3	13:51:25	81.810	83.580	83.790	81.100	83.310	83.720	0.000	80.870
X		102.059%	104.892%	106.002%	102.395%	106.094%	105.682%	0.000	100.675%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.505	0.542	1.032	1.039	1.620	0.907	0.000	0.426
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	91.592%	82.650	83.430	88.406%	79.210	80.620	81.250	83.100
2	13:51:06	93.576%	84.890	85.600	89.207%	80.000	81.370	83.110	83.010
3	13:51:25	93.681%	85.840	87.390	89.641%	79.690	80.400	82.520	82.400
X		92.950%	105.573%	106.842%	89.085%	99.541%	100.998%	102.864%	103.544%
σ		1.177%	n/a	n/a	0.626%	n/a	n/a	n/a	n/a
%RSD		1.267	1.941	2.317	0.703	0.499	0.631	1.159	0.460
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:47	88.730%	83.950	84.080	83.980	80.260	80.610	90.090%	90.552%
2	13:51:06	91.284%	84.870	85.100	84.280	80.560	80.480	94.230%	93.704%
3	13:51:25	92.194%	83.710	84.830	83.230	80.090	80.400	94.681%	94.879%
X		90.736%	105.222%	105.840%	104.784%	100.374%	100.623%	93.000%	93.045%
σ		1.796%	n/a	n/a	n/a	n/a	n/a	2.530%	2.237%
%RSD		1.979	0.728	0.624	0.645	0.297	0.132	2.721	2.405
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:50:47	78.570	79.140	79.030	75.220	77.060	89.581%		
2	13:51:06	83.100	83.050	82.230	77.730	80.300	89.361%		
3	13:51:25	85.210	85.790	85.450	80.890	82.690	88.069%		
X		102.868%	103.323%	102.796%	97.433%	100.022%	89.004%		
σ		n/a	n/a	n/a	n/a	n/a	0.817%		
%RSD		4.123	4.044	3.902	3.641	3.536	0.918		

ICB 11/4/2014 1:56:51 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	92.110%	0.013	6.451	6.200	0.000	4.620	0.529	0.712
2	13:57:10	92.516%	0.004	5.009	4.371	0.000	4.772	0.953	0.638
3	13:57:30	94.395%	-0.014	2.850	3.399	0.000	4.741	0.775	0.917
x		93.007%	0.001	4.770	4.656	0.000	4.711	0.752	0.756
σ		1.219%	0.014	1.813	1.422	0.000	0.080	0.213	0.144
%RSD		1.311	1263.000	38.000	30.550	0.000	1.705	28.280	19.100
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	1.254	6.967	0.000	6.519	39.640	40.510	99.655%	0.069
2	13:57:10	1.271	6.328	0.000	6.456	42.550	39.660	98.028%	-0.010
3	13:57:30	1.204	6.115	0.000	6.237	32.460	42.190	98.015%	0.036
x		1.243	6.470	0.000	6.404	38.210	40.780	98.566%	0.031
σ		0.035	0.443	0.000	0.148	5.194	1.291	0.943%	0.040
%RSD		2.816	6.852	0.000	2.310	13.590	3.166	0.957	127.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	0.017	0.072	0.031	5.299	6.143	0.002	0.132	-0.086
2	13:57:10	0.004	0.050	0.014	3.442	5.097	0.001	0.084	-0.097
3	13:57:30	-0.008	0.047	0.027	2.512	4.816	0.006	0.141	-0.080
x		0.004	0.056	0.024	3.751	5.352	0.003	0.119	-0.087
σ		0.012	0.013	0.009	1.419	0.700	0.003	0.030	0.009
%RSD		276.600	23.690	36.390	37.830	13.070	86.340	25.630	9.768
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	-0.126	1.800	1.654	-0.173	0.181	-0.576	0.000	0.021
2	13:57:10	-0.110	1.697	1.552	0.087	0.230	0.389	0.000	0.015
3	13:57:30	-0.058	1.718	1.837	0.086	0.130	0.290	0.000	0.015
x		-0.098	1.738	1.681	0.000	0.180	0.034	0.000	0.017
σ		0.036	0.054	0.144	0.150	0.050	0.531	0.000	0.003
%RSD		36.300	3.118	8.591	130300.000	27.730	1540.000	0.000	19.970
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	93.698%	0.158	0.154	93.807%	-0.185	-0.169	0.012	-0.012
2	13:57:10	95.391%	0.158	0.192	94.840%	-0.145	-0.140	0.041	0.021
3	13:57:30	96.737%	0.131	0.178	95.625%	-0.126	-0.115	-0.020	-0.020
x		95.276%	0.149	0.174	94.757%	-0.152	-0.141	0.011	-0.004
σ		1.523%	0.016	0.019	0.912%	0.030	0.027	0.030	0.021
%RSD		1.598	10.700	11.130	0.963	19.690	19.340	277.800	577.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:56:51	92.680%	-0.092	-0.032	-0.013	0.035	0.019	93.651%	92.864%
2	13:57:10	95.249%	-0.019	-0.013	-0.003	0.017	0.019	96.544%	96.692%
3	13:57:30	96.436%	0.076	0.006	-0.033	0.034	0.037	98.438%	98.113%
x		94.788%	-0.012	-0.013	-0.016	0.029	0.025	96.211%	95.890%
σ		1.920%	0.084	0.019	0.015	0.010	0.011	2.411%	2.715%
%RSD		2.026	720.000	145.000	94.000	34.800	42.130	2.506	2.831
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:56:51	0.002	0.007	-0.003	0.003	0.002	98.658%		
2	13:57:10	0.003	0.003	0.003	-0.002	0.002	99.073%		
3	13:57:30	0.008	0.001	0.006	0.004	0.011	100.257%		
x		0.004	0.003	0.002	0.002	0.005	99.329%		
σ		0.003	0.003	0.005	0.003	0.005	0.830%		
%RSD		71.660	90.850	213.600	168.300	105.200	0.836		

CRI 1370008 11/4/2014 2:07:52 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	87.770%	0.943	7.338	7.385	0.000	101.600	98.280	99.720
2	14:08:31	87.705%	0.983	5.961	6.304	0.000	99.760	98.180	101.100
3	14:08:50	87.673%	0.829	5.975	5.626	0.000	100.000	99.680	99.550
x		87.716%	91.836%	128.491%	128.760%	0.000	100.448%	98.711%	100.135%
σ		0.049%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.056	8.708	12.310	13.780	0.000	0.980	0.851	0.873
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	30.240	458.100	0.000	99.120	129.700	102.800	91.425%	4.969
2	14:08:31	29.880	454.900	0.000	99.050	98.930	108.000	91.090%	5.219
3	14:08:50	30.170	457.400	0.000	98.950	124.100	100.200	90.230%	5.066
x		100.332%	91.363%	0.000	99.041%	117.574%	103.656%	90.915%	101.688%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.616%	n/a
%RSD		0.639	0.363	0.000	0.089	13.940	3.816	0.678	2.484
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	0.871	1.964	4.944	58.370	63.230	0.481	1.002	1.823
2	14:08:31	0.831	1.879	4.917	56.280	60.590	0.476	1.013	1.901
3	14:08:50	0.821	1.887	4.902	55.810	59.120	0.484	0.979	2.001
x		84.114%	95.489%	98.414%	113.637%	121.958%	96.058%	99.814%	95.420%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.136	2.458	0.435	2.399	3.418	0.887	1.718	4.695
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	1.928	5.319	5.176	0.850	5.444	4.478	0.000	4.772
2	14:08:31	1.847	5.536	5.578	1.546	5.555	5.956	0.000	4.747
3	14:08:50	1.876	5.505	5.668	1.011	5.572	5.233	0.000	4.775
x		94.182%	109.068%	109.483%	113.573%	110.474%	104.441%	0.000	95.291%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.190	2.156	4.783	32.090	1.254	14.150	0.000	0.321
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	92.410%	7.544	7.451	91.648%	0.826	0.815	1.078	1.013
2	14:08:31	93.674%	7.270	7.499	92.035%	0.874	0.866	1.078	0.962
3	14:08:50	94.064%	6.708	7.099	91.570%	0.854	0.911	1.122	0.991
x		93.383%	143.481%	146.994%	91.751%	85.110%	86.416%	109.282%	98.830%
σ		0.865%	n/a	n/a	0.249%	n/a	n/a	n/a	n/a
%RSD		0.926	5.942	2.977	0.272	2.817	5.575	2.283	2.588
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:11	94.650%	4.235	1.843	1.845	9.451	9.523	96.666%	97.225%
2	14:08:31	97.046%	4.376	1.831	1.837	9.313	9.047	99.613%	99.864%
3	14:08:50	96.621%	4.349	1.852	1.741	9.207	9.380	100.725%	101.229%
x		96.106%	86.398%	92.083%	90.385%	93.235%	93.168%	99.001%	99.440%
σ		1.278%	n/a	n/a	n/a	n/a	n/a	2.097%	2.035%
%RSD		1.330	1.721	0.580	3.193	1.314	2.627	2.118	2.047
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:08:11	0.954	0.945	1.052	0.958	0.997	95.526%		
2	14:08:31	1.010	0.973	1.029	0.929	1.004	96.419%		
3	14:08:50	0.940	1.000	1.018	0.940	1.001	97.733%		
x		96.787%	97.246%	103.303%	94.227%	100.062%	96.560%		
σ		n/a	n/a	n/a	n/a	n/a	1.110%		
%RSD		3.812	2.852	1.709	1.563	0.342	1.150		

ICSA 1369923

11/4/2014 2:11:34 PM

QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	66.031%	0.012	7.218	6.703	0.000	108700.000	104000.000	104300.000
2	14:11:53	62.909%	-0.001	5.952	4.927	0.000	109100.000	104400.000	105300.000
3	14:12:13	62.151%	-0.001	3.338	4.062	0.000	108800.000	104200.000	105700.000
X		63.697%	0.003	5.503	5.231	0.000	108900.000	104200.000	105100.000
σ		2.057%	0.007	1.979	1.346	0.000	228.200	234.200	696.900
%RSD		3.229	203.100	35.960	25.740	0.000	0.210	0.225	0.663
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	102300.000	40.340	0.000	107600.000	109600.000	110300.000	68.401%	2213.000
2	14:11:53	103100.000	42.220	0.000	109200.000	112100.000	112700.000	64.806%	2245.000
3	14:12:13	103100.000	39.450	0.000	108800.000	112300.000	113400.000	63.188%	2248.000
X		102900.000	40.670	0.000	108500.000	111300.000	112100.000	65.465%	2235.000
σ		457.100	1.412	0.000	851.900	1467.000	1610.000	2.668%	19.480
%RSD		0.444	3.472	0.000	0.785	1.318	1.436	4.076	0.872
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	-0.433	0.195	0.493	106100.000	107400.000	0.040	-0.591	1.207
2	14:11:53	-0.535	0.202	0.528	105600.000	107300.000	0.038	-0.678	1.090
3	14:12:13	-0.313	0.281	0.549	106500.000	108000.000	0.032	-0.662	1.057
X		-0.427	0.226	0.523	106000.000	107600.000	0.037	-0.643	1.118
σ		0.111	0.048	0.028	427.200	392.100	0.004	0.046	0.078
%RSD		26.040	21.110	5.374	0.403	0.364	11.270	7.175	7.016
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	1.010	4.070	3.619	-0.115	0.339	-0.705	0.000	0.785
2	14:11:53	1.041	4.597	3.595	-0.432	0.386	-0.907	0.000	0.755
3	14:12:13	0.934	4.451	3.538	0.262	0.616	-0.031	0.000	0.777
X		0.995	4.372	3.584	-0.095	0.447	-0.547	0.000	0.772
σ		0.055	0.272	0.042	0.347	0.148	0.459	0.000	0.015
%RSD		5.507	6.225	1.160	365.200	33.100	83.780	0.000	1.997
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	72.562%	2347.000	2370.000	70.644%	-0.192	-0.176	0.423	0.332
2	14:11:53	73.095%	2361.000	2385.000	69.931%	-0.180	-0.189	0.462	0.259
3	14:12:13	71.824%	2375.000	2413.000	69.447%	-0.176	-0.164	0.268	0.129
X		72.494%	2361.000	2389.000	70.007%	-0.183	-0.176	0.384	0.240
σ		0.638%	13.730	21.880	0.602%	0.009	0.012	0.102	0.103
%RSD		0.880	0.582	0.916	0.860	4.701	7.080	26.630	42.980
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:34	76.299%	1.391	0.207	0.189	0.193	0.122	83.336%	83.682%
2	14:11:53	76.458%	1.687	0.243	0.259	0.149	0.135	85.925%	85.090%
3	14:12:13	76.731%	1.640	0.230	0.250	0.122	0.138	86.705%	86.485%
X		76.496%	1.572	0.227	0.233	0.155	0.131	85.322%	85.086%
σ		0.218%	0.159	0.018	0.038	0.036	0.009	1.763%	1.402%
%RSD		0.286	10.130	7.843	16.370	23.110	6.620	2.067	1.647
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:11:34	0.022	0.020	0.315	0.273	0.291	71.944%		
2	14:11:53	0.019	0.019	0.340	0.296	0.314	70.974%		
3	14:12:13	0.015	0.018	0.328	0.307	0.311	70.702%		
X		0.019	0.019	0.328	0.292	0.305	71.207%		
σ		0.003	0.001	0.012	0.017	0.012	0.653%		
%RSD		17.170	6.551	3.705	5.975	4.069	0.917		

ICSAB 1369924

11/4/2014 2:14:58 PM

QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	60.078%	16.610	48.850	46.690	0.000	114000.000	108400.000	108100.000
2	14:15:17	59.179%	16.450	46.570	44.470	0.000	113600.000	108200.000	108700.000
3	14:15:36	57.412%	16.700	44.780	43.730	0.000	113200.000	107900.000	108000.000
X		58.890%	82.933%	93.468%	89.929%	0.000	113.581%	108.167%	108.266%
σ		1.357%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.304	0.775	4.372	3.431	0.000	0.353	0.252	0.352
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	106500.000	470.900	0.000	109300.000	111900.000	112400.000	67.658%	2245.000
2	14:15:17	107100.000	477.700	0.000	111000.000	115000.000	113700.000	65.959%	2296.000
3	14:15:36	105900.000	469.700	0.000	110800.000	113800.000	113300.000	65.819%	2264.000
X		106.521%	94.548%	0.000	110.385%	113.540%	113.107%	66.479%	113.413%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.024%	n/a
%RSD		0.548	0.911	0.000	0.827	1.372	0.582	1.540	1.152
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	17.460	19.060	19.760	107200.000	108600.000	18.700	17.360	18.800
2	14:15:17	17.820	19.670	20.360	108300.000	109600.000	19.000	17.250	18.790
3	14:15:36	17.420	19.230	20.160	106100.000	107900.000	18.680	17.080	18.350
X		87.825%	96.603%	87.359%	107.180%	108.702%	93.969%	86.144%	93.235%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.251	1.641	1.500	1.029	0.759	0.971	0.805	1.402
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	18.710	22.710	21.210	17.300	41.030	41.680	0.000	20.700
2	14:15:17	18.730	22.820	22.300	17.710	41.040	42.240	0.000	20.730
3	14:15:36	18.250	22.970	22.050	17.900	41.040	41.430	0.000	20.900
X		92.819%	91.336%	87.422%	88.199%	82.074%	83.568%	0.000	103.873%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.465	0.580	2.616	1.741	0.008	0.990	0.000	0.508
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	68.920%	2384.000	2364.000	73.528%	16.550	16.810	17.050	17.470
2	14:15:17	69.731%	2408.000	2397.000	73.477%	16.910	17.050	18.430	17.980
3	14:15:36	70.278%	2410.000	2402.000	74.000%	16.880	17.080	18.140	17.830
X		69.643%	120.020%	119.392%	73.668%	83.896%	84.890%	89.380%	88.804%
σ		0.683%	n/a	n/a	0.288%	n/a	n/a	n/a	n/a
%RSD		0.981	0.598	0.856	0.391	1.196	0.861	4.071	1.493
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:58	76.844%	94.180	17.760	17.920	19.020	19.010	82.443%	83.331%
2	14:15:17	78.679%	94.700	18.000	17.980	19.010	18.290	86.992%	86.269%
3	14:15:36	78.623%	96.630	17.890	18.360	18.590	17.870	88.659%	88.774%
X		78.049%	95.171%	89.425%	90.447%	94.370%	91.959%	86.031%	86.125%
σ		1.043%	n/a	n/a	n/a	n/a	n/a	3.218%	2.724%
%RSD		1.337	1.353	0.662	1.319	1.296	3.141	3.740	3.163
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:14:58	19.640	19.940	19.930	19.620	19.990	72.796%		
2	14:15:17	20.710	21.180	21.190	21.380	21.340	71.172%		
3	14:15:36	21.300	21.400	21.370	21.750	21.670	71.757%		
X		102.760%	104.201%	104.141%	104.584%	105.002%	71.908%		
σ		n/a	n/a	n/a	n/a	n/a	0.822%		
%RSD		4.092	3.774	3.773	5.430	4.240	1.143		



CCV 1369903 11/4/2014 2:21:01 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	74.061%	100.500	100.400	101.700	0.000	53310.000	52190.000	52300.000
2	14:21:20	73.697%	99.980	104.700	100.500	0.000	53370.000	52360.000	52890.000
3	14:21:39	75.020%	98.430	98.500	100.700	0.000	53160.000	52130.000	52350.000
x		74.260%	99.639%	101.209%	101.008%	0.000	106.559%	104.456%	105.028%
σ		0.683%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.920	1.085	3.153	0.628	0.000	0.208	0.234	0.619
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	547.100	4902.000	0.000	52190.000	52670.000	52280.000	80.955%	103.000
2	14:21:20	550.000	4934.000	0.000	52360.000	52660.000	52600.000	79.950%	103.900
3	14:21:39	548.700	4882.000	0.000	52550.000	52990.000	52720.000	80.614%	104.200
x		109.723%	98.123%	0.000	104.736%	105.553%	105.064%	80.506%	103.699%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.511%	n/a
%RSD		0.270	0.542	0.000	0.338	0.356	0.431	0.635	0.597
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	98.340	98.680	519.500	25740.000	25770.000	99.380	97.920	99.920
2	14:21:20	99.540	100.300	521.000	25940.000	25840.000	99.640	99.200	99.730
3	14:21:39	98.810	99.900	524.000	25910.000	25910.000	99.520	99.040	98.700
x		98.896%	99.627%	104.296%	103.447%	103.370%	99.515%	98.720%	99.449%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.615	0.848	0.435	0.423	0.265	0.133	0.704	0.661
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	100.100	109.100	110.600	100.900	105.600	106.000	0.000	102.700
2	14:21:20	99.310	109.800	110.300	100.700	105.200	104.600	0.000	103.100
3	14:21:39	98.280	109.100	110.800	102.400	104.500	106.000	0.000	103.200
x		99.225%	109.333%	110.557%	101.333%	105.105%	105.529%	0.000	103.004%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.914	0.388	0.256	0.958	0.555	0.742	0.000	0.287
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	84.448%	98.230	100.300	77.989%	102.100	101.600	105.100	102.600
2	14:21:20	86.501%	103.900	106.700	78.672%	102.500	102.400	103.700	103.200
3	14:21:39	87.444%	107.700	110.700	79.838%	102.900	103.000	106.600	105.300
x		86.131%	103.277%	105.910%	78.833%	102.522%	102.312%	105.137%	103.688%
σ		1.532%	n/a	n/a	0.935%	n/a	n/a	n/a	n/a
%RSD		1.779	4.599	4.924	1.186	0.411	0.671	1.373	1.357
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:01	86.127%	102.700	102.700	102.200	101.700	100.600	91.963%	92.021%
2	14:21:20	88.370%	102.800	104.100	104.100	101.700	102.000	93.979%	95.434%
3	14:21:39	88.878%	105.100	106.100	104.800	101.100	100.800	97.070%	96.999%
x		87.792%	103.524%	104.269%	103.691%	101.493%	101.121%	94.337%	94.818%
σ		1.464%	n/a	n/a	n/a	n/a	n/a	2.572%	2.546%
%RSD		1.668	1.278	1.658	1.257	0.326	0.735	2.727	2.685
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:21:01	102.100	102.400	101.600	101.500	101.700	88.440%		
2	14:21:20	105.500	106.400	106.200	107.000	106.400	88.348%		
3	14:21:39	106.400	107.200	107.400	108.100	107.800	88.550%		
x		104.660%	105.326%	105.055%	105.549%	105.315%	88.446%		
σ		n/a	n/a	n/a	n/a	n/a	0.101%		
%RSD		2.182	2.456	2.919	3.337	3.048	0.115		

CCB1 11/4/2014 2:26:56 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	78.580%	-0.014	5.428	4.985	0.000	8.281	1.168	1.013
2	14:27:34	79.254%	0.007	3.592	3.659	0.000	7.839	1.021	1.173
3	14:27:53	78.281%	0.007	3.069	2.879	0.000	8.135	1.084	0.894
X		78.705%	0.000	4.030	3.841	0.000	8.085	1.091	1.027
σ		0.499%	0.012	1.239	1.065	0.000	0.225	0.073	0.140
%RSD		0.633	9729.000	30.740	27.730	0.000	2.788	6.725	13.660
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	1.476	4.942	0.000	5.393	40.780	39.730	87.568%	0.034
2	14:27:34	1.528	4.574	0.000	5.614	41.070	36.410	86.928%	0.008
3	14:27:53	1.509	4.434	0.000	4.810	30.100	37.620	85.950%	-0.004
X		1.504	4.650	0.000	5.272	37.310	37.920	86.816%	0.013
σ		0.027	0.262	0.000	0.415	6.253	1.679	0.815%	0.019
%RSD		1.767	5.642	0.000	7.878	16.760	4.427	0.939	153.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	0.001	0.072	0.089	6.959	7.476	0.003	0.112	-0.114
2	14:27:34	0.005	0.049	0.088	4.933	6.222	0.001	0.129	-0.112
3	14:27:53	0.005	0.055	0.093	3.679	4.713	-0.002	0.090	-0.125
X		0.004	0.059	0.090	5.191	6.137	0.001	0.110	-0.117
σ		0.003	0.012	0.003	1.655	1.383	0.002	0.020	0.007
%RSD		66.090	20.330	2.933	31.890	22.540	334.700	17.850	5.631
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	-0.069	1.754	1.774	0.039	-0.099	0.126	0.000	0.025
2	14:27:34	-0.116	1.788	1.905	-0.213	0.042	-0.854	0.000	0.023
3	14:27:53	-0.107	1.745	1.777	-0.284	-0.022	-1.293	0.000	0.018
X		-0.097	1.762	1.819	-0.153	-0.027	-0.674	0.000	0.022
σ		0.025	0.023	0.075	0.170	0.071	0.727	0.000	0.004
%RSD		25.330	1.280	4.135	111.400	265.400	107.900	0.000	16.680
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	90.009%	0.639	0.648	88.733%	-0.235	-0.229	-0.053	-0.040
2	14:27:34	90.793%	0.603	0.610	89.053%	-0.210	-0.197	0.010	-0.012
3	14:27:53	91.577%	0.614	0.603	89.968%	-0.218	-0.220	0.008	-0.015
X		90.793%	0.618	0.620	89.251%	-0.221	-0.215	-0.012	-0.022
σ		0.784%	0.019	0.024	0.641%	0.013	0.017	0.036	0.015
%RSD		0.864	3.008	3.900	0.718	5.796	7.697	301.000	67.960
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:15	93.068%	-0.168	-0.001	0.037	0.023	0.016	96.417%	96.625%
2	14:27:34	94.948%	-0.113	0.047	0.050	0.028	0.015	98.575%	98.814%
3	14:27:53	96.214%	-0.192	-0.003	0.041	0.028	0.018	100.224%	101.426%
X		94.743%	-0.158	0.014	0.042	0.026	0.016	98.405%	98.955%
σ		1.583%	0.040	0.028	0.007	0.003	0.002	1.909%	2.404%
%RSD		1.671	25.670	194.000	15.770	10.460	9.285	1.940	2.429
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:27:15	0.003	0.002	0.011	0.008	0.008	102.514%		
2	14:27:34	0.007	0.004	0.009	0.009	0.013	102.876%		
3	14:27:53	0.004	0.002	0.026	0.015	0.016	102.683%		
X		0.005	0.003	0.015	0.011	0.012	102.691%		
σ		0.002	0.001	0.009	0.004	0.004	0.181%		
%RSD		39.520	32.290	58.840	37.870	29.160	0.176		

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11/4/2014 2:30:28 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	67.335%	-0.002	6.553	6.779	0.000	85450.000	2.320	1.707
2	14:31:06	66.296%	-0.014	4.696	6.047	0.000	84570.000	1.845	2.060
3	14:31:26	65.030%	0.038	4.315	4.916	0.000	84740.000	1.867	1.795
X		66.220%	0.007	5.188	5.914	0.000	84920.000	2.011	1.854
σ		1.154%	0.027	1.198	0.938	0.000	470.200	0.268	0.184
%RSD		1.743	368.700	23.080	15.870	0.000	0.554	13.330	9.915
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	12.930	3920.000	0.000	54.040	34.600	56.600	73.163%	0.128
2	14:31:06	13.100	3892.000	0.000	53.910	40.110	53.990	71.459%	0.227
3	14:31:26	12.770	3845.000	0.000	53.530	22.540	55.440	69.184%	0.236
X		12.930	3885.000	0.000	53.830	32.420	55.340	71.269%	0.197
σ		0.164	37.850	0.000	0.266	8.988	1.304	1.996%	0.060
%RSD		1.268	0.974	0.000	0.493	27.720	2.355	2.801	30.360
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	0.039	0.118	0.008	21.720	22.620	0.010	0.419	0.473
2	14:31:06	-0.172	0.120	0.001	19.940	20.550	0.012	0.451	0.447
3	14:31:26	-0.027	0.125	0.002	20.320	24.670	0.005	0.382	0.522
X		-0.053	0.121	0.004	20.660	22.610	0.009	0.417	0.480
σ		0.108	0.004	0.004	0.936	2.061	0.004	0.034	0.038
%RSD		201.900	2.933	91.310	4.529	9.116	43.660	8.261	7.930
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	0.099	2.770	2.615	-0.209	-0.122	-1.603	0.000	0.335
2	14:31:06	0.090	2.821	2.672	0.372	0.356	0.509	0.000	0.325
3	14:31:26	0.172	2.775	2.917	-0.197	0.232	-1.489	0.000	0.300
X		0.121	2.789	2.734	-0.011	0.155	-0.861	0.000	0.320
σ		0.045	0.028	0.161	0.332	0.248	1.188	0.000	0.018
%RSD		37.420	0.992	5.868	2912.000	159.700	138.000	0.000	5.608
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	79.083%	0.716	0.728	75.808%	-0.233	-0.220	-0.038	-0.020
2	14:31:06	78.817%	0.750	0.797	75.314%	-0.225	-0.206	-0.100	-0.088
3	14:31:26	77.882%	0.659	0.802	73.999%	-0.230	-0.184	-0.128	-0.068
X		78.594%	0.708	0.775	75.040%	-0.229	-0.203	-0.089	-0.059
σ		0.631%	0.046	0.041	0.935%	0.004	0.019	0.046	0.035
%RSD		0.803	6.535	5.301	1.246	1.654	9.136	52.060	59.290
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:47	82.363%	0.526	0.226	0.257	0.064	0.083	90.415%	91.990%
2	14:31:06	82.783%	0.603	0.244	0.225	0.082	0.067	93.166%	93.622%
3	14:31:26	81.695%	0.650	0.240	0.245	0.039	0.061	91.317%	93.438%
X		82.280%	0.593	0.237	0.242	0.061	0.070	91.633%	93.017%
σ		0.548%	0.062	0.009	0.016	0.022	0.011	1.402%	0.894%
%RSD		0.667	10.540	3.847	6.699	34.990	15.890	1.531	0.961
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:30:47	0.009	0.009	0.226	0.189	0.206	91.977%		
2	14:31:06	0.006	0.003	0.228	0.211	0.209	88.702%		
3	14:31:26	0.008	0.008	0.213	0.214	0.212	87.806%		
X		0.008	0.007	0.222	0.205	0.209	89.495%		
σ		0.002	0.003	0.008	0.014	0.003	2.196%		
%RSD		24.010	42.970	3.705	6.619	1.583	2.453		

180-38185-A-10-A @10

11/4/2014 2:33:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	63.068%	0.013	5.669	7.099	0.000	97920.000	7.616	7.549
2	14:34:37	61.349%	0.027	5.695	5.084	0.000	98550.000	7.465	7.671
3	14:34:56	61.308%	0.027	3.975	4.703	0.000	97030.000	7.682	7.425
X		61.908%	0.022	5.113	5.629	0.000	97830.000	7.588	7.548
σ		1.005%	0.008	0.986	1.287	0.000	762.200	0.112	0.123
%RSD		1.623	37.650	19.280	22.870	0.000	0.779	1.470	1.625
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	12.390	723.800	0.000	53.400	49.500	41.210	67.108%	0.263
2	14:34:37	11.650	716.600	0.000	54.020	34.320	42.620	65.100%	0.168
3	14:34:56	11.600	703.100	0.000	54.540	44.200	39.450	63.028%	0.104
X		11.880	714.500	0.000	53.990	42.670	41.090	65.078%	0.178
σ		0.440	10.540	0.000	0.573	7.702	1.589	2.040%	0.080
%RSD		3.707	1.475	0.000	1.062	18.050	3.868	3.135	44.740
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	-0.328	0.105	0.171	36.450	37.850	0.018	0.444	1.297
2	14:34:37	-0.260	0.144	0.161	36.540	40.450	0.015	0.498	1.261
3	14:34:56	-0.261	0.112	0.145	35.610	39.850	0.021	0.431	1.282
X		-0.283	0.120	0.159	36.200	39.380	0.018	0.458	1.280
σ		0.039	0.021	0.013	0.510	1.360	0.003	0.036	0.018
%RSD		13.740	17.060	8.275	1.410	3.454	14.290	7.823	1.393
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	0.782	4.412	4.341	-0.017	0.082	-0.597	0.000	0.364
2	14:34:37	0.669	4.296	4.409	0.074	-0.102	-0.613	0.000	0.365
3	14:34:56	0.701	4.568	4.468	0.238	-0.076	-0.420	0.000	0.360
X		0.718	4.426	4.406	0.098	-0.032	-0.543	0.000	0.363
σ		0.058	0.137	0.063	0.130	0.100	0.107	0.000	0.003
%RSD		8.119	3.093	1.441	131.900	308.600	19.690	0.000	0.743
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	71.935%	0.614	0.608	69.153%	-0.219	-0.228	-0.048	-0.050
2	14:34:37	71.596%	0.578	0.624	68.038%	-0.202	-0.205	-0.083	-0.062
3	14:34:56	70.981%	0.630	0.607	67.730%	-0.215	-0.197	-0.069	-0.052
X		71.504%	0.608	0.613	68.307%	-0.212	-0.210	-0.067	-0.055
σ		0.483%	0.027	0.009	0.749%	0.009	0.016	0.018	0.006
%RSD		0.676	4.393	1.494	1.096	4.233	7.701	26.890	10.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:34:17	75.247%	0.466	0.215	0.230	0.098	0.087	83.685%	84.739%
2	14:34:37	75.992%	0.417	0.181	0.248	0.062	0.055	85.251%	85.990%
3	14:34:56	75.070%	0.435	0.199	0.241	0.063	0.090	84.901%	87.042%
X		75.437%	0.440	0.198	0.240	0.074	0.077	84.612%	85.924%
σ		0.489%	0.025	0.017	0.009	0.020	0.020	0.822%	1.153%
%RSD		0.649	5.634	8.614	3.918	27.170	25.460	0.971	1.342
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:34:17	0.004	0.002	0.121	0.111	0.122	80.849%		
2	14:34:37	0.008	-0.002	0.123	0.101	0.132	80.648%		
3	14:34:56	0.005	0.003	0.119	0.081	0.112	79.989%		
X		0.006	0.001	0.121	0.098	0.122	80.496%		
σ		0.002	0.002	0.002	0.016	0.010	0.450%		
%RSD		42.190	200.700	1.592	16.010	8.166	0.559		

180-38185-A-14-A @10

11/4/2014 2:37:31 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	59.794%	0.042	7.402	8.047	0.000	60800.000	3.753	3.477
2	14:38:13	59.117%	-0.014	6.097	6.623	0.000	60320.000	3.239	3.581
3	14:38:33	58.234%	0.088	6.578	6.431	0.000	60490.000	4.254	3.379
X		59.048%	0.039	6.693	7.034	0.000	60540.000	3.749	3.479
σ		0.782%	0.051	0.660	0.883	0.000	243.500	0.508	0.101
%RSD		1.325	132.000	9.857	12.550	0.000	0.402	13.540	2.900
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	27.880	1643.000	0.000	35.560	47.040	62.880	63.940%	0.172
2	14:38:13	19.510	1620.000	0.000	35.140	60.900	61.700	62.050%	0.288
3	14:38:33	15.220	1623.000	0.000	34.370	61.660	62.140	61.353%	0.108
X		20.870	1629.000	0.000	35.020	56.530	62.240	62.448%	0.190
σ		6.436	12.250	0.000	0.602	8.231	0.599	1.339%	0.091
%RSD		30.840	0.752	0.000	1.718	14.560	0.963	2.144	48.040
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	-0.273	0.168	0.102	20.000	22.760	0.017	0.580	0.586
2	14:38:13	-0.151	0.112	0.081	19.180	24.330	0.015	0.460	0.627
3	14:38:33	0.101	0.177	0.099	18.610	24.000	0.017	0.540	0.645
X		-0.108	0.152	0.094	19.260	23.700	0.016	0.527	0.619
σ		0.191	0.035	0.011	0.699	0.825	0.002	0.061	0.030
%RSD		176.900	23.190	12.000	3.630	3.481	9.348	11.600	4.884
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	0.223	2.559	2.503	0.091	-0.441	-0.490	0.000	0.479
2	14:38:13	0.302	2.725	2.400	-0.255	0.015	-1.917	0.000	0.481
3	14:38:33	0.240	2.701	2.456	-0.060	-0.032	-1.581	0.000	0.500
X		0.255	2.662	2.453	-0.075	-0.153	-1.329	0.000	0.486
σ		0.041	0.089	0.051	0.174	0.251	0.746	0.000	0.011
%RSD		16.200	3.361	2.089	232.400	164.800	56.110	0.000	2.331
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	69.816%	0.602	0.642	68.096%	-0.248	-0.241	-0.074	-0.046
2	14:38:13	70.037%	0.671	0.594	68.322%	-0.224	-0.222	-0.080	-0.081
3	14:38:33	70.784%	0.586	0.593	68.126%	-0.241	-0.222	-0.078	-0.064
X		70.212%	0.620	0.610	68.181%	-0.237	-0.228	-0.077	-0.064
σ		0.508%	0.045	0.028	0.123%	0.012	0.011	0.003	0.017
%RSD		0.723	7.259	4.639	0.180	5.157	4.659	4.432	26.850
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:53	74.398%	0.140	0.313	0.311	0.182	0.175	82.722%	83.749%
2	14:38:13	74.962%	0.188	0.360	0.361	0.104	0.185	84.343%	85.367%
3	14:38:33	76.137%	0.165	0.332	0.346	0.156	0.143	86.316%	87.591%
X		75.165%	0.164	0.335	0.340	0.148	0.168	84.460%	85.569%
σ		0.887%	0.024	0.024	0.026	0.040	0.022	1.800%	1.929%
%RSD		1.180	14.510	7.089	7.579	26.840	13.180	2.131	2.254
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:37:53	0.003	-0.002	0.287	0.286	0.304	82.015%		
2	14:38:13	-0.003	-0.000	0.317	0.289	0.308	81.731%		
3	14:38:33	-0.000	0.000	0.320	0.298	0.313	82.596%		
X		0.000	-0.001	0.308	0.291	0.308	82.114%		
σ		0.003	0.001	0.019	0.006	0.005	0.441%		
%RSD		5831.000	203.500	6.012	2.119	1.515	0.537		

180-38185-A-16-A @10

11/4/2014 2:41:06 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	60.171%	-0.014	8.878	8.303	0.000	53610.000	2.121	2.029
2	14:41:44	59.328%	-0.014	7.089	6.143	0.000	53180.000	2.212	2.335
3	14:42:04	59.138%	0.043	5.591	6.195	0.000	53420.000	2.526	2.644
X		59.545%	0.005	7.186	6.880	0.000	53400.000	2.286	2.336
σ		0.550%	0.033	1.646	1.233	0.000	215.000	0.213	0.307
%RSD		0.924	669.100	22.910	17.920	0.000	0.403	9.301	13.150
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	5.330	966.400	0.000	83.340	33.070	44.160	64.379%	0.189
2	14:41:44	5.064	956.200	0.000	84.840	34.440	49.080	62.036%	0.052
3	14:42:04	5.418	957.400	0.000	84.100	41.970	47.020	61.380%	0.072
X		5.271	960.000	0.000	84.090	36.490	46.750	62.598%	0.104
σ		0.185	5.554	0.000	0.746	4.791	2.469	1.577%	0.074
%RSD		3.501	0.579	0.000	0.887	13.130	5.282	2.518	70.840
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	0.004	0.179	0.094	1.411	5.424	0.011	0.470	0.540
2	14:41:44	-0.055	0.135	0.045	0.730	6.064	0.012	0.451	0.521
3	14:42:04	-0.173	0.102	0.068	0.248	5.381	0.013	0.432	0.540
X		-0.074	0.139	0.069	0.796	5.623	0.012	0.451	0.534
σ		0.090	0.038	0.025	0.584	0.383	0.001	0.019	0.011
%RSD		121.000	27.620	35.580	73.360	6.802	6.797	4.291	2.123
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	0.271	1.545	1.722	-0.389	-0.116	-1.627	0.000	0.391
2	14:41:44	0.164	1.717	1.721	-0.080	0.087	-0.911	0.000	0.425
3	14:42:04	0.197	1.692	1.776	-0.010	-0.259	-0.610	0.000	0.405
X		0.211	1.651	1.740	-0.160	-0.096	-1.049	0.000	0.407
σ		0.055	0.093	0.032	0.202	0.174	0.522	0.000	0.017
%RSD		26.020	5.636	1.837	126.500	181.200	49.800	0.000	4.274
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	70.151%	0.484	0.461	68.198%	-0.254	-0.208	-0.054	-0.052
2	14:41:44	70.140%	0.569	0.466	68.163%	-0.223	-0.231	-0.091	-0.076
3	14:42:04	70.280%	0.433	0.521	68.182%	-0.245	-0.236	-0.054	-0.054
X		70.190%	0.496	0.483	68.181%	-0.240	-0.225	-0.066	-0.061
σ		0.078%	0.069	0.033	0.017%	0.016	0.015	0.021	0.014
%RSD		0.111	13.860	6.930	0.025	6.755	6.637	32.460	22.250
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:41:25	73.932%	0.009	0.219	0.245	0.058	0.077	82.021%	83.435%
2	14:41:44	74.986%	0.010	0.239	0.266	0.126	0.087	83.203%	85.585%
3	14:42:04	75.692%	0.025	0.307	0.215	0.090	0.109	85.164%	86.698%
X		74.870%	0.015	0.255	0.242	0.091	0.091	83.463%	85.239%
σ		0.885%	0.009	0.046	0.026	0.034	0.017	1.587%	1.659%
%RSD		1.183	62.510	18.030	10.650	37.440	18.150	1.902	1.946
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:41:25	-0.003	-0.000	0.080	0.075	0.089	83.062%		
2	14:41:44	0.000	-0.001	0.114	0.078	0.094	82.284%		
3	14:42:04	0.000	-0.001	0.091	0.081	0.090	81.868%		
X		-0.001	-0.001	0.095	0.078	0.091	82.405%		
σ		0.002	0.000	0.017	0.003	0.003	0.606%		
%RSD		181.900	46.970	17.940	3.351	2.876	0.735		

180-38185-B-19-A @10

11/4/2014 2:44:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	60.091%	-0.000	7.081	7.127	0.000	66510.000	2.555	2.422
2	14:45:16	60.822%	0.014	5.094	5.319	0.000	65660.000	2.378	2.292
3	14:45:35	58.845%	0.000	4.264	4.252	0.000	65510.000	2.563	2.360
X		59.920%	0.005	5.479	5.566	0.000	65900.000	2.499	2.358
σ		1.000%	0.008	1.448	1.454	0.000	540.200	0.105	0.065
%RSD		1.668	169.900	26.420	26.110	0.000	0.820	4.190	2.759
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	7.871	4610.000	0.000	19.680	31.760	57.420	63.651%	0.298
2	14:45:16	7.644	4545.000	0.000	19.980	39.720	55.630	61.961%	0.089
3	14:45:35	7.513	4538.000	0.000	20.900	24.770	53.530	60.001%	0.168
X		7.676	4564.000	0.000	20.190	32.080	55.530	61.871%	0.185
σ		0.181	39.370	0.000	0.636	7.482	1.945	1.827%	0.106
%RSD		2.355	0.863	0.000	3.152	23.320	3.502	2.953	57.060
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	0.110	0.188	0.124	52.750	54.800	0.012	0.431	0.552
2	14:45:16	-0.214	0.171	0.118	53.520	58.360	0.020	0.357	0.625
3	14:45:35	0.125	0.146	0.122	53.410	56.120	0.006	0.388	0.581
X		0.007	0.168	0.121	53.230	56.430	0.013	0.392	0.586
σ		0.192	0.021	0.003	0.417	1.803	0.007	0.037	0.036
%RSD		2732.000	12.440	2.306	0.783	3.195	56.980	9.519	6.223
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	0.268	1.811	1.763	-0.429	-0.333	-1.183	0.000	0.355
2	14:45:16	0.275	1.937	1.846	0.188	-0.329	-0.522	0.000	0.344
3	14:45:35	0.260	1.921	1.912	0.510	-0.474	-0.061	0.000	0.377
X		0.268	1.890	1.840	0.090	-0.379	-0.589	0.000	0.358
σ		0.008	0.068	0.075	0.477	0.083	0.564	0.000	0.017
%RSD		2.869	3.616	4.069	532.500	21.880	95.740	0.000	4.693
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	69.485%	0.309	0.324	67.666%	-0.240	-0.243	-0.059	-0.038
2	14:45:16	69.853%	0.359	0.371	67.693%	-0.246	-0.230	-0.059	-0.059
3	14:45:35	70.136%	0.378	0.380	67.837%	-0.228	-0.220	-0.085	-0.067
X		69.825%	0.348	0.358	67.732%	-0.238	-0.231	-0.068	-0.055
σ		0.326%	0.035	0.030	0.092%	0.009	0.012	0.015	0.015
%RSD		0.467	10.130	8.427	0.136	3.893	5.030	22.110	27.250
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:57	72.818%	0.086	0.203	0.193	0.122	0.086	81.267%	82.520%
2	14:45:16	74.602%	0.141	0.229	0.203	0.147	0.091	83.639%	84.660%
3	14:45:35	74.977%	0.177	0.205	0.177	0.097	0.098	85.181%	86.175%
X		74.132%	0.135	0.212	0.191	0.122	0.092	83.362%	84.452%
σ		1.154%	0.046	0.014	0.013	0.025	0.006	1.972%	1.836%
%RSD		1.557	34.320	6.787	6.837	20.270	6.640	2.366	2.174
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:44:57	-0.002	-0.000	0.438	0.413	0.442	81.616%		
2	14:45:16	-0.005	-0.001	0.498	0.484	0.469	80.927%		
3	14:45:35	-0.004	-0.003	0.458	0.402	0.441	81.351%		
X		-0.004	-0.001	0.465	0.433	0.451	81.298%		
σ		0.001	0.001	0.030	0.045	0.016	0.347%		
%RSD		41.270	85.710	6.541	10.310	3.574	0.427		

180-38185-B-19-A SD@50

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	62.023%	0.040	4.384	5.490	0.000	13210.000	0.795	0.830
2	14:48:48	62.051%	0.040	3.806	4.014	0.000	13020.000	0.966	0.820
3	14:49:07	62.099%	0.013	3.053	3.048	0.000	13160.000	0.561	0.955
X		62.058%	0.031	3.748	4.184	0.000	13130.000	0.774	0.868
σ		0.038%	0.016	0.668	1.230	0.000	102.000	0.203	0.075
%RSD		0.062	50.290	17.820	29.400	0.000	0.777	26.220	8.634
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	4.801	941.300	0.000	-0.586	23.030	25.020	68.060%	0.109
2	14:48:48	4.936	929.100	0.000	-0.801	17.230	21.780	65.891%	0.063
3	14:49:07	5.027	928.000	0.000	-0.912	10.690	22.360	65.400%	0.012
X		4.921	932.800	0.000	-0.766	16.980	23.050	66.450%	0.061
σ		0.114	7.403	0.000	0.166	6.176	1.729	1.415%	0.048
%RSD		2.316	0.794	0.000	21.620	36.360	7.499	2.130	78.960
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	0.100	0.036	0.181	10.220	11.230	0.002	0.748	0.035
2	14:48:48	0.026	0.037	0.187	9.312	12.080	-0.002	0.107	0.062
3	14:49:07	0.000	0.054	0.163	8.640	12.080	-0.002	0.142	0.031
X		0.042	0.042	0.177	9.391	11.800	-0.001	0.333	0.043
σ		0.052	0.010	0.012	0.793	0.489	0.002	0.360	0.017
%RSD		122.700	24.370	6.957	8.449	4.145	296.100	108.400	38.930
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	-0.069	2.062	1.831	-0.133	-0.293	-0.674	0.000	0.081
2	14:48:48	-0.059	1.924	1.885	-0.096	-0.235	-0.690	0.000	0.079
3	14:49:07	-0.054	2.003	1.835	0.095	-0.323	-0.510	0.000	0.090
X		-0.061	1.996	1.850	-0.045	-0.283	-0.625	0.000	0.083
σ		0.008	0.069	0.030	0.123	0.045	0.100	0.000	0.006
%RSD		12.550	3.459	1.626	273.600	15.740	15.950	0.000	7.073
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	73.270%	0.063	0.053	73.453%	-0.278	-0.247	-0.023	-0.031
2	14:48:48	73.628%	0.050	0.067	73.016%	-0.240	-0.234	-0.033	-0.038
3	14:49:07	73.400%	0.067	0.068	72.730%	-0.262	-0.226	-0.078	-0.061
X		73.433%	0.060	0.063	73.066%	-0.260	-0.236	-0.044	-0.043
σ		0.181%	0.009	0.008	0.364%	0.019	0.011	0.029	0.016
%RSD		0.247	14.540	13.290	0.498	7.265	4.624	66.200	36.650
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:29	77.651%	-0.483	-0.069	-0.078	0.055	0.020	84.003%	84.416%
2	14:48:48	78.761%	-0.460	-0.065	-0.031	0.087	0.031	86.140%	87.342%
3	14:49:07	78.863%	-0.456	-0.071	-0.052	0.041	0.034	86.764%	88.230%
X		78.425%	-0.467	-0.068	-0.053	0.061	0.028	85.636%	86.663%
σ		0.672%	0.015	0.003	0.024	0.024	0.008	1.448%	1.996%
%RSD		0.857	3.155	4.499	44.050	38.940	26.700	1.691	2.303
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:48:29	-0.005	-0.004	0.101	0.119	0.113	89.317%		
2	14:48:48	-0.005	-0.004	0.133	0.118	0.121	89.858%		
3	14:49:07	-0.005	-0.005	0.122	0.122	0.117	89.388%		
X		-0.005	-0.004	0.119	0.120	0.117	89.521%		
σ		0.000	0.001	0.016	0.002	0.004	0.294%		
%RSD		8.370	18.470	13.590	1.489	3.034	0.328		



180-38185-A-20-A @10

11/4/2014 2:51:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	61.333%	0.055	6.799	6.642	0.000	57690.000	1.446	1.506
2	14:52:21	60.948%	0.042	4.573	5.514	0.000	57520.000	1.724	1.703
3	14:52:40	59.530%	0.014	4.965	4.485	0.000	57620.000	1.112	1.453
X		60.604%	0.037	5.446	5.547	0.000	57610.000	1.427	1.554
σ		0.949%	0.021	1.189	1.079	0.000	87.540	0.306	0.132
%RSD		1.567	55.940	21.820	19.440	0.000	0.152	21.460	8.459
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	7.137	709.800	0.000	15.130	42.410	39.390	63.109%	0.068
2	14:52:21	6.809	706.100	0.000	14.170	44.940	42.710	62.053%	0.161
3	14:52:40	6.976	702.400	0.000	14.360	24.860	43.220	59.767%	0.188
X		6.974	706.100	0.000	14.560	37.400	41.780	61.643%	0.139
σ		0.164	3.697	0.000	0.509	10.940	2.079	1.708%	0.063
%RSD		2.351	0.524	0.000	3.500	29.240	4.977	2.771	45.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	-0.085	0.221	0.021	0.409	3.042	0.032	0.245	0.397
2	14:52:21	0.101	0.232	0.004	-0.691	3.290	0.042	0.288	0.386
3	14:52:40	-0.148	0.189	0.018	-1.266	3.479	0.030	0.270	0.453
X		-0.044	0.214	0.014	-0.516	3.270	0.035	0.268	0.412
σ		0.129	0.022	0.009	0.851	0.219	0.007	0.021	0.036
%RSD		293.900	10.440	61.570	164.900	6.698	19.640	8.003	8.690
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	0.085	2.003	2.267	0.149	-0.363	-0.285	0.000	0.326
2	14:52:21	0.027	1.984	1.962	0.053	-0.336	-0.381	0.000	0.345
3	14:52:40	0.143	1.837	2.082	-0.202	-0.464	-1.679	0.000	0.355
X		0.085	1.941	2.104	0.000	-0.388	-0.782	0.000	0.342
σ		0.058	0.091	0.154	0.182	0.067	0.779	0.000	0.015
%RSD		68.670	4.689	7.304	102300.000	17.350	99.620	0.000	4.298
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	68.525%	0.310	0.310	67.415%	-0.256	-0.253	-0.103	-0.073
2	14:52:21	69.655%	0.231	0.274	67.496%	-0.248	-0.234	-0.044	-0.049
3	14:52:40	68.879%	0.258	0.324	66.998%	-0.250	-0.210	-0.067	-0.051
X		69.020%	0.266	0.303	67.303%	-0.251	-0.233	-0.071	-0.058
σ		0.578%	0.040	0.026	0.267%	0.004	0.021	0.030	0.013
%RSD		0.837	15.140	8.581	0.396	1.648	9.200	41.770	23.390
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:52:02	72.001%	0.060	0.145	0.150	0.116	0.140	80.915%	82.515%
2	14:52:21	73.763%	0.042	0.162	0.171	0.092	0.108	83.590%	84.223%
3	14:52:40	73.993%	-0.013	0.116	0.121	0.057	0.072	84.098%	85.216%
X		73.252%	0.030	0.141	0.147	0.088	0.106	82.868%	83.984%
σ		1.090%	0.038	0.023	0.025	0.030	0.034	1.710%	1.366%
%RSD		1.488	128.700	16.370	17.200	33.710	31.940	2.063	1.626
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:52:02	0.000	-0.003	0.115	0.087	0.102	81.554%		
2	14:52:21	-0.004	-0.002	0.122	0.085	0.109	80.291%		
3	14:52:40	-0.001	-0.004	0.119	0.105	0.111	80.955%		
X		-0.001	-0.003	0.118	0.092	0.107	80.933%		
σ		0.002	0.001	0.003	0.011	0.005	0.632%		
%RSD		145.500	27.560	2.738	11.850	4.577	0.780		

180-38111-A-9-E

11/4/2014 2:55:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	68.188%	1.430	491.400	487.200	0.000	53030.000	3935.000	3958.000
2	14:55:53	70.001%	1.554	489.300	477.800	0.000	52460.000	3883.000	3894.000
3	14:56:12	68.758%	1.645	495.100	474.600	0.000	52610.000	3897.000	3936.000
X		68.983%	1.543	492.000	479.800	0.000	52700.000	3905.000	3929.000
σ		0.927%	0.108	2.947	6.568	0.000	294.900	26.600	32.680
%RSD		1.344	6.971	0.599	1.369	0.000	0.560	0.681	0.832
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	26000.000	40230.000	0.000	9240.000	12250.000	11890.000	57.163%	103.300
2	14:55:53	25470.000	39450.000	0.000	9185.000	12030.000	11880.000	58.378%	104.800
3	14:56:12	25650.000	39460.000	0.000	9213.000	12120.000	11960.000	57.625%	107.200
X		25710.000	39710.000	0.000	9213.000	12130.000	11910.000	57.722%	105.100
σ		271.500	449.900	0.000	27.770	109.200	44.350	0.613%	1.955
%RSD		1.056	1.133	0.000	0.301	0.900	0.372	1.062	1.860
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	56.080	38.710	391.400	33720.000	33620.000	16.240	29.930	38.790
2	14:55:53	55.370	38.860	385.200	33050.000	33130.000	15.870	30.070	37.790
3	14:56:12	54.680	38.290	392.400	33320.000	33380.000	15.980	29.070	37.890
X		55.380	38.620	389.700	33360.000	33370.000	16.030	29.690	38.160
σ		0.697	0.294	3.890	337.200	245.000	0.188	0.542	0.554
%RSD		1.258	0.762	0.998	1.011	0.734	1.172	1.825	1.452
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	37.910	91.060	90.370	13.320	-0.671	-3.897	0.000	148.000
2	14:55:53	36.610	90.700	90.460	12.830	-0.880	-3.418	0.000	147.400
3	14:56:12	36.950	90.500	91.050	12.220	-0.577	-2.460	0.000	147.600
X		37.160	90.750	90.630	12.790	-0.709	-3.259	0.000	147.700
σ		0.670	0.282	0.369	0.550	0.155	0.732	0.000	0.301
%RSD		1.803	0.311	0.407	4.297	21.920	22.450	0.000	0.204
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	78.608%	2.246	2.295	60.755%	-0.061	-0.034	0.091	0.079
2	14:55:53	80.829%	2.258	2.446	61.168%	-0.039	-0.010	0.049	0.022
3	14:56:12	81.418%	2.251	2.346	61.899%	-0.035	-0.092	0.065	-0.021
X		80.285%	2.252	2.362	61.274%	-0.045	-0.045	0.068	0.027
σ		1.482%	0.006	0.076	0.579%	0.014	0.042	0.021	0.050
%RSD		1.846	0.257	3.236	0.945	31.730	93.130	30.940	189.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:34	68.026%	21.930	1.574	1.513	310.100	307.300	81.335%	81.938%
2	14:55:53	70.114%	17.490	1.507	1.350	307.500	307.900	83.593%	85.095%
3	14:56:12	71.055%	14.880	1.189	1.319	308.400	307.500	85.647%	87.259%
X		69.731%	18.100	1.423	1.394	308.700	307.500	83.525%	84.764%
σ		1.550%	3.562	0.206	0.104	1.309	0.288	2.156%	2.676%
%RSD		2.223	19.680	14.460	7.463	0.424	0.094	2.582	3.157
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:55:34	0.381	0.391	28.900	26.550	27.860	65.920%		
2	14:55:53	0.395	0.374	28.470	27.100	28.210	68.066%		
3	14:56:12	0.393	0.375	29.160	27.290	28.360	69.730%		
X		0.390	0.380	28.840	26.980	28.140	67.906%		
σ		0.008	0.010	0.347	0.385	0.258	1.910%		
%RSD		2.032	2.567	1.203	1.428	0.916	2.813		

180-38111-A-11-F

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	77.453%	0.030	254.900	247.700	0.000	46770.000	1359.000	1374.000
2	14:59:26	76.832%	0.008	249.600	249.100	0.000	46570.000	1350.000	1365.000
3	14:59:45	77.039%	0.008	251.700	240.600	0.000	46320.000	1353.000	1365.000
X		77.108%	0.016	252.100	245.800	0.000	46550.000	1354.000	1368.000
σ		0.316%	0.013	2.672	4.526	0.000	221.500	4.898	4.919
%RSD		0.410	81.620	1.060	1.841	0.000	0.476	0.362	0.360
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	470.400	6530.000	0.000	662.300	9805.000	9654.000	65.230%	4.137
2	14:59:26	492.800	6361.000	0.000	654.900	9833.000	9832.000	64.942%	4.102
3	14:59:45	479.600	6325.000	0.000	663.600	9845.000	9753.000	63.767%	3.734
X		480.900	6405.000	0.000	660.300	9827.000	9746.000	64.646%	3.991
σ		11.250	109.400	0.000	4.691	20.630	89.100	0.775%	0.224
%RSD		2.339	1.707	0.000	0.710	0.210	0.914	1.199	5.601
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	0.690	2.798	2.519	254.800	262.300	0.132	0.675	0.691
2	14:59:26	0.320	2.739	2.490	252.600	258.900	0.135	0.654	0.751
3	14:59:45	0.690	2.662	2.482	250.300	259.500	0.144	0.641	0.808
X		0.567	2.733	2.497	252.600	260.200	0.137	0.656	0.750
σ		0.214	0.068	0.020	2.245	1.831	0.006	0.017	0.059
%RSD		37.760	2.495	0.785	0.889	0.704	4.744	2.600	7.806
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	0.482	16.860	17.980	0.159	-0.520	-0.997	0.000	45.440
2	14:59:26	0.430	16.740	16.230	0.475	-0.451	-1.458	0.000	45.370
3	14:59:45	0.529	17.040	16.990	0.086	-0.289	-1.989	0.000	45.350
X		0.480	16.880	17.070	0.240	-0.420	-1.481	0.000	45.390
σ		0.050	0.152	0.875	0.207	0.118	0.496	0.000	0.047
%RSD		10.360	0.900	5.125	86.270	28.190	33.490	0.000	0.103
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	74.292%	0.435	0.439	70.842%	-0.234	-0.237	-0.146	-0.134
2	14:59:26	74.892%	0.457	0.444	70.413%	-0.230	-0.226	-0.142	-0.120
3	14:59:45	75.355%	0.415	0.371	70.831%	-0.199	-0.217	-0.086	-0.064
X		74.846%	0.436	0.418	70.696%	-0.221	-0.227	-0.125	-0.106
σ		0.533%	0.021	0.041	0.245%	0.019	0.010	0.034	0.037
%RSD		0.712	4.820	9.752	0.346	8.633	4.384	26.880	34.610
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:07	76.323%	5.886	0.406	0.436	5.694	5.679	88.947%	88.956%
2	14:59:26	78.378%	5.793	0.416	0.443	5.189	5.466	89.180%	91.682%
3	14:59:45	79.061%	5.673	0.353	0.406	5.196	5.469	90.782%	92.280%
X		77.921%	5.784	0.391	0.428	5.360	5.538	89.636%	90.973%
σ		1.425%	0.107	0.034	0.020	0.290	0.123	0.999%	1.772%
%RSD		1.829	1.848	8.681	4.654	5.407	2.214	1.115	1.948
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:59:07	0.006	0.004	0.324	0.296	0.314	75.334%		
2	14:59:26	0.004	0.006	0.367	0.339	0.357	76.780%		
3	14:59:45	0.010	0.005	0.353	0.496	0.380	77.560%		
X		0.007	0.005	0.348	0.377	0.350	76.558%		
σ		0.003	0.001	0.022	0.105	0.033	1.130%		
%RSD		40.080	15.240	6.441	27.930	9.509	1.476		

180-38111-A-12-E 11/4/2014 3:02:20 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	77.184%	0.132	432.200	432.300	0.000	58910.000	815.000	818.800
2	15:02:59	76.869%	0.098	434.900	422.500	0.000	58260.000	806.800	804.300
3	15:03:18	74.687%	0.136	430.300	415.200	0.000	58050.000	809.000	807.400
X		76.247%	0.122	432.500	423.300	0.000	58410.000	810.300	810.200
σ		1.360%	0.021	2.341	8.630	0.000	447.300	4.250	7.642
%RSD		1.783	16.940	0.541	2.039	0.000	0.766	0.524	0.943
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	1092.000	8651.000	0.000	487.800	4357.000	4412.000	64.049%	10.440
2	15:02:59	1080.000	8371.000	0.000	478.200	4537.000	4358.000	63.483%	7.026
3	15:03:18	1069.000	8306.000	0.000	476.500	4428.000	4406.000	61.690%	9.085
X		1080.000	8443.000	0.000	480.800	4441.000	4392.000	63.074%	8.851
σ		11.510	183.100	0.000	6.074	90.560	29.220	1.232%	1.720
%RSD		1.065	2.168	0.000	1.263	2.039	0.665	1.953	19.440
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	2.527	4.181	35.260	732.700	716.400	1.017	1.810	1.834
2	15:02:59	0.970	4.045	34.600	721.900	703.600	1.104	1.710	1.801
3	15:03:18	1.310	4.072	34.950	722.400	706.300	1.050	1.830	1.878
X		1.602	4.099	34.940	725.700	708.800	1.057	1.783	1.838
σ		0.819	0.072	0.330	6.111	6.770	0.044	0.064	0.038
%RSD		51.090	1.757	0.943	0.842	0.955	4.161	3.614	2.090
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	1.504	27.770	27.780	-0.416	-0.459	-1.983	0.000	11.650
2	15:02:59	1.444	27.580	27.660	-0.056	-0.655	-2.057	0.000	11.470
3	15:03:18	1.489	28.040	27.970	0.574	-0.457	-1.930	0.000	11.920
X		1.479	27.800	27.800	0.034	-0.524	-1.990	0.000	11.680
σ		0.031	0.230	0.155	0.501	0.114	0.064	0.000	0.225
%RSD		2.101	0.828	0.557	1485.000	21.740	3.201	0.000	1.926
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	75.166%	0.711	0.749	68.798%	-0.255	-0.233	-0.081	-0.059
2	15:02:59	75.261%	0.695	0.784	68.699%	-0.226	-0.208	-0.113	-0.089
3	15:03:18	74.365%	0.693	0.739	68.241%	-0.229	-0.207	-0.099	-0.100
X		74.930%	0.700	0.757	68.579%	-0.237	-0.216	-0.098	-0.083
σ		0.492%	0.010	0.024	0.297%	0.016	0.015	0.016	0.021
%RSD		0.656	1.417	3.125	0.433	6.698	6.755	16.080	25.490
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:02:39	75.288%	4.930	0.381	0.388	21.730	21.480	86.050%	87.973%
2	15:02:59	77.389%	4.878	0.406	0.423	22.360	21.310	87.790%	90.111%
3	15:03:18	77.224%	4.791	0.410	0.415	21.630	21.910	90.962%	92.379%
X		76.634%	4.866	0.399	0.409	21.910	21.570	88.267%	90.154%
σ		1.168%	0.070	0.016	0.018	0.395	0.312	2.490%	2.203%
%RSD		1.524	1.448	3.995	4.432	1.804	1.448	2.821	2.444
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:02:39	0.012	0.007	1.822	1.704	1.778	73.126%		
2	15:02:59	0.005	0.009	1.852	1.647	1.739	74.433%		
3	15:03:18	0.004	0.009	1.786	1.679	1.775	76.740%		
X		0.007	0.008	1.820	1.677	1.764	74.766%		
σ		0.005	0.002	0.033	0.029	0.022	1.830%		
%RSD		64.490	18.530	1.800	1.727	1.222	2.448		

CCV 1369903 11/4/2014 3:06:01 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	68.012%	97.980	100.000	101.000	0.000	51050.000	50030.000	49740.000
2	15:06:20	67.115%	97.680	102.200	100.400	0.000	51510.000	50160.000	50430.000
3	15:06:39	66.588%	98.150	101.600	99.400	0.000	51130.000	50140.000	50120.000
x		67.238%	97.937%	101.280%	100.273%	0.000	102.464%	100.217%	100.187%
σ		0.720%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.070	0.247	1.113	0.807	0.000	0.477	0.135	0.687
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	509.600	4752.000	0.000	50340.000	50220.000	50500.000	71.774%	101.400
2	15:06:20	516.700	4781.000	0.000	51050.000	51890.000	51440.000	69.891%	99.540
3	15:06:39	511.500	4721.000	0.000	50960.000	51700.000	51460.000	68.505%	103.300
x		102.520%	95.029%	0.000	101.565%	102.538%	102.267%	70.056%	101.424%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.641%	n/a
%RSD		0.722	0.625	0.000	0.762	1.788	1.076	2.342	1.855
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	97.590	97.370	504.400	24970.000	25020.000	97.300	97.970	98.760
2	15:06:20	97.170	98.050	508.100	25220.000	25110.000	97.720	98.330	99.380
3	15:06:39	98.280	98.300	511.200	25430.000	25370.000	98.850	98.680	99.370
x		97.679%	97.906%	101.577%	100.835%	100.667%	97.955%	98.325%	99.170%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.574	0.492	0.677	0.908	0.739	0.818	0.360	0.355
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	98.730	104.300	104.000	98.690	101.600	101.500	0.000	99.580
2	15:06:20	97.780	107.200	106.400	99.360	103.700	105.500	0.000	100.700
3	15:06:39	97.680	106.900	107.500	99.270	102.500	99.070	0.000	100.000
x		98.064%	106.115%	105.999%	99.107%	102.587%	102.014%	0.000	100.091%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.589	1.480	1.680	0.368	1.046	3.185	0.000	0.563
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	77.312%	92.590	94.260	72.703%	99.350	99.210	103.000	101.200
2	15:06:20	76.673%	98.160	102.100	71.598%	99.930	100.700	102.300	102.200
3	15:06:39	76.658%	102.300	105.000	71.407%	100.600	100.400	103.100	101.600
x		76.881%	97.698%	100.449%	71.902%	99.964%	100.101%	102.791%	101.676%
σ		0.373%	n/a	n/a	0.700%	n/a	n/a	n/a	n/a
%RSD		0.486	5.009	5.527	0.973	0.629	0.783	0.424	0.479
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:01	79.188%	98.590	98.910	98.930	97.390	97.390	85.153%	86.063%
2	15:06:20	79.172%	100.700	100.800	100.200	99.930	98.550	86.094%	87.105%
3	15:06:39	79.625%	100.900	101.600	102.000	98.290	98.450	87.856%	88.555%
x		79.329%	100.065%	100.443%	100.368%	98.538%	98.129%	86.368%	87.241%
σ		0.257%	n/a	n/a	n/a	n/a	n/a	1.372%	1.252%
%RSD		0.324	1.282	1.371	1.532	1.306	0.659	1.589	1.435
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:06:01	104.200	104.800	103.700	104.700	103.800	79.083%		
2	15:06:20	106.700	106.900	106.100	108.400	107.600	78.428%		
3	15:06:39	107.300	108.300	108.500	108.600	108.900	78.398%		
x		106.035%	106.662%	106.112%	107.260%	106.756%	78.636%		
σ		n/a	n/a	n/a	n/a	n/a	0.388%		
%RSD		1.558	1.637	2.274	2.037	2.461	0.493		

CCB2 11/4/2014 3:11:56 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	80.722%	-0.004	4.312	4.858	0.000	18.310	1.213	0.831
2	15:12:35	78.806%	-0.003	4.130	3.440	0.000	19.240	0.967	1.032
3	15:12:54	79.951%	0.007	2.649	2.766	0.000	19.710	1.256	0.998
x		79.826%	-0.000	3.697	3.688	0.000	19.090	1.145	0.954
σ		0.964%	0.006	0.912	1.068	0.000	0.713	0.156	0.108
%RSD		1.208	21360.000	24.670	28.970	0.000	3.736	13.650	11.270
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	1.410	3.953	0.000	-6.857	44.430	30.760	85.263%	0.036
2	15:12:35	1.268	3.294	0.000	-7.288	34.480	30.590	84.611%	-0.003
3	15:12:54	1.510	2.838	0.000	-7.599	36.130	32.690	83.766%	0.038
x		1.396	3.362	0.000	-7.248	38.350	31.350	84.547%	0.024
σ		0.122	0.561	0.000	0.373	5.330	1.164	0.750%	0.023
%RSD		8.704	16.680	0.000	5.146	13.900	3.714	0.888	98.240
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	-0.020	0.043	0.054	3.779	5.891	-0.000	0.124	-0.108
2	15:12:35	0.004	0.057	0.042	2.125	5.194	-0.003	0.130	-0.080
3	15:12:54	0.000	0.027	0.052	0.817	4.635	-0.001	0.096	-0.070
x		-0.005	0.042	0.050	2.240	5.240	-0.001	0.117	-0.086
σ		0.013	0.015	0.006	1.485	0.629	0.001	0.018	0.020
%RSD		235.100	35.070	12.850	66.270	12.010	125.500	15.450	23.410
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	-0.046	1.762	1.844	-0.317	-0.238	-1.212	0.000	0.023
2	15:12:35	-0.053	1.964	1.719	-0.016	-0.298	0.106	0.000	0.014
3	15:12:54	-0.083	1.775	1.688	-0.148	-0.086	-0.401	0.000	0.023
x		-0.061	1.834	1.750	-0.160	-0.207	-0.502	0.000	0.020
σ		0.020	0.113	0.082	0.151	0.109	0.665	0.000	0.005
%RSD		32.230	6.175	4.703	94.300	52.790	132.300	0.000	26.270
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	80.980%	0.218	0.134	81.973%	-0.269	-0.236	-0.004	-0.008
2	15:12:35	82.868%	0.135	0.151	83.391%	-0.257	-0.233	-0.047	-0.041
3	15:12:54	82.555%	0.094	0.130	82.803%	-0.234	-0.204	-0.011	-0.019
x		82.134%	0.149	0.139	82.722%	-0.253	-0.224	-0.021	-0.023
σ		1.012%	0.064	0.011	0.712%	0.018	0.018	0.023	0.017
%RSD		1.232	42.680	8.027	0.861	7.173	7.907	111.000	74.640
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:15	84.231%	-0.461	0.022	0.059	0.057	0.018	88.752%	88.986%
2	15:12:35	87.054%	-0.477	0.010	0.054	0.031	0.010	90.673%	91.629%
3	15:12:54	87.812%	-0.451	-0.013	0.018	0.049	0.041	93.032%	93.420%
x		86.365%	-0.463	0.006	0.044	0.046	0.023	90.819%	91.345%
σ		1.887%	0.013	0.018	0.023	0.013	0.016	2.144%	2.231%
%RSD		2.185	2.834	282.800	51.490	29.090	69.340	2.360	2.442
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:12:15	0.002	-0.001	0.032	0.035	0.029	95.114%		
2	15:12:35	0.002	0.002	0.031	0.017	0.028	95.069%		
3	15:12:54	-0.000	-0.000	0.028	0.028	0.028	96.446%		
x		0.001	0.000	0.030	0.026	0.028	95.543%		
σ		0.002	0.002	0.002	0.009	0.000	0.782%		
%RSD		107.400	816.800	6.859	34.230	1.418	0.819		

180-38111-A-13-E 11/4/2014 3:15:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	73.940%	2.214	463.000	471.000	0.000	57760.000	3170.000	3208.000
2	15:16:08	75.024%	2.026	468.600	451.700	0.000	57060.000	3134.000	3158.000
3	15:16:28	75.419%	2.298	459.400	448.900	0.000	57170.000	3152.000	3165.000
X		74.794%	2.179	463.700	457.200	0.000	57330.000	3152.000	3177.000
σ		0.766%	0.139	4.631	12.040	0.000	377.900	18.010	27.340
%RSD		1.024	6.380	0.999	2.634	0.000	0.659	0.571	0.861
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	9487.000	21210.000	0.000	3442.000	27300.000	26520.000	63.140%	33.270
2	15:16:08	9319.000	20440.000	0.000	3421.000	27030.000	26620.000	62.297%	31.420
3	15:16:28	9238.000	20370.000	0.000	3432.000	27290.000	26610.000	60.634%	32.650
X		9348.000	20670.000	0.000	3432.000	27200.000	26580.000	62.023%	32.450
σ		126.900	464.900	0.000	10.200	154.900	55.210	1.275%	0.941
%RSD		1.357	2.249	0.000	0.297	0.569	0.208	2.056	2.901
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	20.260	11.950	309.200	6089.000	6044.000	15.830	18.280	28.480
2	15:16:08	20.180	11.850	310.500	6054.000	6017.000	15.740	18.800	28.800
3	15:16:28	20.680	11.870	313.700	6077.000	6060.000	15.810	18.360	28.140
X		20.370	11.890	311.100	6074.000	6040.000	15.790	18.480	28.480
σ		0.267	0.053	2.349	17.460	21.990	0.050	0.278	0.333
%RSD		1.311	0.447	0.755	0.287	0.364	0.315	1.503	1.168
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	28.670	64.610	64.070	2.384	-0.912	-2.711	0.000	87.970
2	15:16:08	28.040	65.010	65.820	2.694	-0.726	-2.448	0.000	87.980
3	15:16:28	27.840	63.900	63.830	2.709	-0.971	-2.944	0.000	87.710
X		28.180	64.510	64.570	2.596	-0.870	-2.701	0.000	87.890
σ		0.436	0.564	1.085	0.183	0.128	0.248	0.000	0.153
%RSD		1.549	0.874	1.681	7.059	14.670	9.175	0.000	0.174
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	77.732%	0.719	0.649	66.011%	-0.200	-0.171	0.009	0.063
2	15:16:08	78.630%	0.643	0.759	65.801%	-0.202	-0.187	-0.009	0.077
3	15:16:28	79.383%	0.593	0.674	66.067%	-0.203	-0.180	0.026	0.032
X		78.582%	0.652	0.694	65.960%	-0.201	-0.179	0.008	0.057
σ		0.827%	0.063	0.057	0.140%	0.001	0.008	0.017	0.023
%RSD		1.052	9.680	8.283	0.212	0.690	4.514	206.300	39.740
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:49	72.476%	4.292	0.591	0.618	586.800	589.000	83.582%	85.019%
2	15:16:08	74.078%	4.247	0.519	0.575	592.900	595.200	85.713%	88.146%
3	15:16:28	74.469%	4.138	0.498	0.438	591.400	592.200	88.464%	89.433%
X		73.674%	4.226	0.536	0.543	590.400	592.100	85.920%	87.533%
σ		1.056%	0.079	0.049	0.094	3.171	3.098	2.447%	2.270%
%RSD		1.433	1.870	9.080	17.310	0.537	0.523	2.848	2.594
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:15:49	0.128	0.121	21.690	20.220	21.100	69.572%		
2	15:16:08	0.136	0.120	21.830	20.440	21.260	71.731%		
3	15:16:28	0.132	0.115	22.600	20.490	21.660	71.395%		
X		0.132	0.118	22.040	20.380	21.340	70.899%		
σ		0.004	0.003	0.488	0.145	0.287	1.162%		
%RSD		3.150	2.754	2.216	0.710	1.346	1.639		

180-38111-A-14-E

11/4/2014 3:19:02 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	77.497%	1.842	415.700	399.700	0.000	52000.000	2712.000	2720.000
2	15:19:40	77.418%	1.790	397.400	388.300	0.000	51370.000	2706.000	2728.000
3	15:20:00	75.893%	1.701	396.800	385.200	0.000	50760.000	2669.000	2716.000
X		76.936%	1.778	403.300	391.100	0.000	51380.000	2695.000	2721.000
σ		0.904%	0.071	10.730	7.622	0.000	616.100	23.420	6.146
%RSD		1.175	4.004	2.661	1.949	0.000	1.199	0.869	0.226
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	11170.000	22470.000	0.000	4603.000	26760.000	26380.000	62.941%	52.510
2	15:19:40	11130.000	22070.000	0.000	4572.000	26900.000	26190.000	62.178%	54.140
3	15:20:00	11030.000	21820.000	0.000	4573.000	26880.000	26290.000	60.628%	53.560
X		11110.000	22120.000	0.000	4583.000	26850.000	26290.000	61.915%	53.400
σ		74.740	329.800	0.000	17.770	76.560	91.960	1.179%	0.828
%RSD		0.673	1.491	0.000	0.388	0.285	0.350	1.904	1.551
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	21.830	15.820	396.200	8397.000	8293.000	11.000	18.290	24.640
2	15:19:40	21.110	15.770	399.900	8447.000	8442.000	10.900	18.470	25.030
3	15:20:00	20.520	15.760	398.000	8398.000	8424.000	11.120	18.780	24.980
X		21.160	15.790	398.000	8414.000	8387.000	11.010	18.510	24.880
σ		0.655	0.034	1.837	28.830	81.300	0.111	0.248	0.211
%RSD		3.096	0.217	0.462	0.343	0.969	1.009	1.342	0.847
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	24.670	58.340	58.940	4.185	-0.713	-3.101	0.000	131.200
2	15:19:40	25.120	58.450	58.170	3.979	-0.730	-4.288	0.000	130.800
3	15:20:00	23.990	57.910	58.760	4.434	-0.903	-4.202	0.000	131.800
X		24.600	58.230	58.620	4.200	-0.782	-3.863	0.000	131.300
σ		0.570	0.288	0.404	0.228	0.106	0.662	0.000	0.476
%RSD		2.316	0.495	0.689	5.423	13.490	17.140	0.000	0.363
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	83.661%	1.457	1.474	65.815%	-0.208	-0.191	0.059	0.099
2	15:19:40	84.368%	1.521	1.493	66.586%	-0.158	-0.164	0.050	0.033
3	15:20:00	84.448%	1.518	1.504	65.545%	-0.179	-0.180	0.066	0.035
X		84.159%	1.499	1.490	65.982%	-0.182	-0.178	0.058	0.056
σ		0.433%	0.036	0.015	0.541%	0.026	0.013	0.008	0.038
%RSD		0.515	2.424	1.024	0.819	14.100	7.479	13.850	67.380
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:21	72.509%	3.459	0.417	0.465	263.100	261.200	85.172%	85.847%
2	15:19:40	74.258%	3.395	0.419	0.352	262.300	262.300	87.936%	88.571%
3	15:20:00	75.418%	3.197	0.407	0.405	258.800	264.600	89.395%	90.381%
X		74.062%	3.350	0.415	0.407	261.400	262.700	87.501%	88.266%
σ		1.464%	0.137	0.006	0.057	2.295	1.714	2.145%	2.282%
%RSD		1.977	4.079	1.558	13.900	0.878	0.653	2.451	2.586
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:19:21	0.129	0.144	12.190	11.740	11.950	70.162%		
2	15:19:40	0.124	0.145	12.620	11.540	12.010	70.953%		
3	15:20:00	0.149	0.148	12.550	11.740	12.200	71.559%		
X		0.134	0.146	12.450	11.670	12.050	70.891%		
σ		0.013	0.002	0.233	0.115	0.130	0.701%		
%RSD		9.604	1.702	1.875	0.983	1.077	0.988		



180-38111-A-15-E 11/4/2014 3:22:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	75.366%	1.550	472.300	460.600	0.000	59910.000	3280.000	3329.000
2	15:23:10	74.932%	1.722	462.400	446.800	0.000	59350.000	3281.000	3298.000
3	15:23:30	74.957%	1.687	461.400	445.400	0.000	59520.000	3269.000	3307.000
X		75.085%	1.653	465.300	450.900	0.000	59590.000	3277.000	3311.000
σ		0.243%	0.091	6.030	8.401	0.000	289.300	6.259	15.760
%RSD		0.324	5.496	1.296	1.863	0.000	0.485	0.191	0.476
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	18630.000	32780.000	0.000	6962.000	20090.000	19840.000	61.002%	79.840
2	15:23:10	18340.000	32030.000	0.000	6901.000	20110.000	19780.000	60.371%	81.640
3	15:23:30	18120.000	31660.000	0.000	6866.000	20280.000	19730.000	60.098%	81.350
X		18360.000	32160.000	0.000	6910.000	20160.000	19780.000	60.490%	80.950
σ		251.600	573.100	0.000	48.500	105.600	54.220	0.464%	0.966
%RSD		1.370	1.782	0.000	0.702	0.524	0.274	0.767	1.193
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	35.380	27.040	305.600	16510.000	16420.000	10.210	24.020	30.940
2	15:23:10	33.910	26.310	305.000	16330.000	16210.000	9.974	23.780	31.040
3	15:23:30	34.270	26.990	308.100	16360.000	16430.000	10.070	23.820	30.870
X		34.520	26.780	306.200	16400.000	16350.000	10.090	23.870	30.950
σ		0.766	0.409	1.617	97.060	125.300	0.120	0.131	0.087
%RSD		2.219	1.527	0.528	0.592	0.766	1.191	0.547	0.280
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	30.330	74.090	75.910	8.432	-0.708	-2.460	0.000	112.700
2	15:23:10	29.700	76.230	74.940	8.045	-0.649	-2.210	0.000	113.400
3	15:23:30	29.830	75.480	74.990	7.728	-0.564	-2.807	0.000	114.500
X		29.950	75.270	75.280	8.069	-0.640	-2.493	0.000	113.500
σ		0.329	1.085	0.548	0.353	0.073	0.300	0.000	0.896
%RSD		1.099	1.441	0.728	4.371	11.350	12.020	0.000	0.789
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	77.648%	1.888	2.144	65.122%	-0.219	-0.217	-0.000	0.009
2	15:23:10	77.992%	2.167	2.074	64.355%	-0.229	-0.175	0.006	-0.012
3	15:23:30	78.218%	2.144	2.112	65.113%	-0.211	-0.180	0.012	0.016
X		77.953%	2.066	2.110	64.863%	-0.220	-0.191	0.006	0.004
σ		0.287%	0.155	0.035	0.440%	0.009	0.023	0.006	0.015
%RSD		0.369	7.493	1.668	0.679	3.897	11.850	104.100	348.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:22:51	72.129%	3.065	0.375	0.376	269.600	267.500	84.976%	85.895%
2	15:23:10	74.504%	3.072	0.361	0.394	264.900	264.800	87.211%	88.697%
3	15:23:30	75.612%	2.977	0.388	0.361	266.900	265.800	88.105%	89.880%
X		74.082%	3.038	0.374	0.377	267.100	266.100	86.764%	88.157%
σ		1.779%	0.053	0.013	0.016	2.333	1.371	1.612%	2.046%
%RSD		2.402	1.735	3.595	4.358	0.873	0.515	1.858	2.321
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:22:51	0.310	0.296	20.650	19.200	20.110	69.630%		
2	15:23:10	0.315	0.317	21.280	19.350	20.340	71.914%		
3	15:23:30	0.300	0.298	21.070	19.340	20.360	72.386%		
X		0.308	0.304	21.000	19.300	20.270	71.310%		
σ		0.007	0.011	0.317	0.084	0.137	1.474%		
%RSD		2.425	3.709	1.508	0.433	0.674	2.067		

180-38111-A-16-E 11/4/2014 3:26:02 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	79.759%	0.181	458.800	445.000	0.000	57270.000	1315.000	1308.000
2	15:26:40	79.106%	0.238	445.400	431.000	0.000	56790.000	1303.000	1309.000
3	15:27:00	78.108%	0.186	445.400	423.400	0.000	56390.000	1294.000	1292.000
X		78.991%	0.202	449.900	433.100	0.000	56810.000	1304.000	1303.000
σ		0.831%	0.032	7.705	10.980	0.000	441.300	10.660	9.455
%RSD		1.052	15.650	1.713	2.536	0.000	0.777	0.817	0.726
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	3224.000	13050.000	0.000	1347.000	12110.000	11830.000	65.784%	22.590
2	15:26:40	3146.000	12770.000	0.000	1346.000	12160.000	11930.000	63.920%	21.850
3	15:27:00	3138.000	12620.000	0.000	1344.000	12190.000	11910.000	62.882%	22.810
X		3169.000	12810.000	0.000	1346.000	12150.000	11890.000	64.195%	22.420
σ		47.800	216.300	0.000	1.572	39.060	50.200	1.470%	0.507
%RSD		1.508	1.688	0.000	0.117	0.321	0.422	2.290	2.262
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	6.150	7.009	25.250	2396.000	2350.000	0.749	3.155	3.558
2	15:26:40	5.666	6.973	25.010	2388.000	2359.000	0.772	3.098	3.603
3	15:27:00	6.032	6.774	24.830	2355.000	2333.000	0.811	2.986	3.441
X		5.949	6.919	25.030	2380.000	2347.000	0.778	3.080	3.534
σ		0.252	0.127	0.212	21.510	12.980	0.031	0.086	0.084
%RSD		4.243	1.830	0.847	0.904	0.553	4.001	2.805	2.371
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	3.296	32.210	32.910	1.223	-0.487	-2.607	0.000	26.440
2	15:26:40	3.075	33.420	33.740	1.297	-0.454	-1.541	0.000	25.960
3	15:27:00	3.021	32.190	34.060	1.521	-0.262	-1.839	0.000	26.430
X		3.131	32.610	33.570	1.347	-0.401	-1.995	0.000	26.280
σ		0.146	0.704	0.595	0.155	0.121	0.550	0.000	0.276
%RSD		4.653	2.159	1.771	11.530	30.290	27.570	0.000	1.051
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	74.956%	2.422	2.487	69.708%	-0.246	-0.266	-0.098	-0.072
2	15:26:40	75.461%	2.349	2.368	69.423%	-0.263	-0.243	-0.103	-0.101
3	15:27:00	75.852%	2.394	2.473	69.787%	-0.261	-0.244	-0.096	-0.083
X		75.423%	2.389	2.442	69.639%	-0.257	-0.251	-0.099	-0.085
σ		0.449%	0.037	0.065	0.191%	0.009	0.013	0.003	0.014
%RSD		0.596	1.531	2.664	0.275	3.484	5.086	3.441	16.770
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:21	76.660%	1.578	0.116	0.107	25.890	25.120	87.574%	88.592%
2	15:26:40	77.471%	1.701	0.136	0.197	25.420	25.550	89.357%	91.112%
3	15:27:00	78.592%	1.788	0.157	0.138	24.710	24.860	91.816%	92.664%
X		77.574%	1.689	0.137	0.147	25.340	25.170	89.582%	90.789%
σ		0.970%	0.105	0.021	0.046	0.592	0.350	2.129%	2.055%
%RSD		1.251	6.239	15.030	31.250	2.336	1.392	2.377	2.264
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:26:21	0.041	0.043	2.073	1.947	2.022	74.899%		
2	15:26:40	0.037	0.038	2.034	2.031	2.017	76.174%		
3	15:27:00	0.035	0.037	2.162	2.017	2.090	75.729%		
X		0.038	0.040	2.090	1.999	2.043	75.601%		
σ		0.003	0.003	0.065	0.045	0.041	0.647%		
%RSD		8.322	8.562	3.134	2.250	1.995	0.856		

CRI 1370008 11/4/2014 3:32:15 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	81.758%	0.849	6.944	8.495	0.000	106.500	85.780	85.230
2	15:32:53	81.205%	0.791	7.279	6.963	0.000	106.900	87.810	89.470
3	15:33:13	79.953%	0.955	6.375	6.628	0.000	108.100	90.060	89.140
X		80.972%	86.498%	137.316%	147.240%	0.000	107.171%	87.883%	87.948%
σ		0.925%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.142	9.615	6.659	13.520	0.000	0.803	2.435	2.680
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	26.680	420.000	0.000	81.230	77.400	100.300	71.646%	4.698
2	15:32:53	27.030	418.900	0.000	82.010	91.100	98.770	71.616%	4.667
3	15:33:13	26.370	419.000	0.000	84.670	113.700	98.610	69.852%	4.538
X		88.973%	83.858%	0.000	82.635%	94.059%	99.232%	71.038%	92.689%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.027%	n/a
%RSD		1.241	0.146	0.000	2.181	19.470	0.950	1.446	1.826
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	0.806	1.881	4.795	47.370	44.400	0.459	0.978	1.932
2	15:32:53	1.066	1.983	4.785	46.510	45.660	0.445	1.030	1.909
3	15:33:13	0.996	1.919	4.874	47.460	47.830	0.475	1.116	1.874
X		95.615%	96.390%	96.360%	94.228%	91.923%	91.955%	104.153%	95.239%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		14.100	2.679	1.015	1.109	3.776	3.242	6.692	1.531
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	1.722	6.463	7.076	1.158	4.858	4.895	0.000	4.667
2	15:32:53	1.786	6.315	6.413	1.182	5.477	4.854	0.000	4.714
3	15:33:13	1.693	6.434	6.515	0.840	5.306	4.593	0.000	4.726
X		86.687%	128.079%	133.359%	105.991%	104.275%	95.609%	0.000	94.050%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.732	1.226	5.353	18.010	6.127	3.421	0.000	0.665
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	77.775%	4.433	4.509	77.335%	0.688	0.709	0.870	0.872
2	15:32:53	78.609%	4.595	4.660	77.695%	0.680	0.772	1.030	0.932
3	15:33:13	78.841%	4.640	4.731	77.262%	0.736	0.723	0.964	0.921
X		78.408%	91.121%	92.664%	77.431%	70.120%	73.433%	95.482%	90.827%
σ		0.561%	n/a	n/a	0.232%	n/a	n/a	n/a	n/a
%RSD		0.716	2.383	2.446	0.299	4.281	4.520	8.436	3.478
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:32:34	82.850%	3.536	1.759	1.717	9.536	9.410	86.907%	87.601%
2	15:32:53	84.833%	3.593	1.756	1.790	8.760	9.094	88.910%	89.545%
3	15:33:13	84.309%	3.713	1.734	1.715	8.737	8.955	90.141%	90.415%
X		83.997%	72.279%	87.471%	87.028%	90.109%	91.530%	88.653%	89.187%
σ		1.028%	n/a	n/a	n/a	n/a	n/a	1.632%	1.441%
%RSD		1.223	2.497	0.765	2.456	5.049	2.551	1.841	1.615
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:32:34	0.957	0.935	0.999	0.923	0.965	89.103%		
2	15:32:53	0.961	0.985	0.995	0.919	0.982	89.992%		
3	15:33:13	0.981	0.939	0.995	0.990	0.991	90.774%		
X		96.643%	95.319%	99.612%	94.439%	97.950%	89.956%		
σ		n/a	n/a	n/a	n/a	n/a	0.836%		
%RSD		1.315	2.890	0.216	4.207	1.365	0.929		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	78.873%	-0.003	5.087	4.704	0.000	23.930	0.448	0.651
2	15:36:26	78.553%	0.030	3.988	3.896	0.000	23.850	0.542	0.286
3	15:36:45	78.740%	-0.003	3.854	2.994	0.000	24.180	0.627	0.535
X		78.722%	0.008	4.310	3.865	0.000	23.980	0.539	0.491
σ		0.161%	0.019	0.676	0.856	0.000	0.174	0.090	0.187
%RSD		0.204	244.300	15.700	22.140	0.000	0.726	16.620	38.020
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	9.380	8.295	0.000	-9.370	5.419	9.228	66.309%	-0.006
2	15:36:26	9.054	8.190	0.000	-9.265	12.340	9.661	64.719%	0.065
3	15:36:45	9.323	7.265	0.000	-9.219	9.070	11.730	64.335%	-0.022
X		9.253	7.917	0.000	-9.285	8.943	10.210	65.121%	0.013
σ		0.174	0.567	0.000	0.078	3.462	1.336	1.047%	0.046
%RSD		1.882	7.161	0.000	0.835	38.710	13.090	1.608	368.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	0.327	0.480	0.036	2.290	2.343	-0.006	0.013	-0.084
2	15:36:26	0.257	0.521	0.020	1.371	2.657	-0.006	0.031	-0.121
3	15:36:45	0.208	0.471	0.019	0.542	1.956	-0.002	0.013	-0.115
X		0.264	0.491	0.025	1.401	2.319	-0.005	0.019	-0.107
σ		0.060	0.027	0.009	0.874	0.351	0.002	0.010	0.020
%RSD		22.560	5.423	37.910	62.410	15.140	44.010	53.930	18.300
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	-0.103	22.710	22.710	0.251	-0.395	0.075	0.000	0.010
2	15:36:26	-0.083	23.060	23.000	-0.460	-0.665	-0.389	0.000	0.011
3	15:36:45	-0.102	22.960	23.790	-0.438	-0.415	-1.405	0.000	0.012
X		-0.096	22.910	23.170	-0.216	-0.491	-0.573	0.000	0.011
σ		0.011	0.177	0.557	0.404	0.150	0.757	0.000	0.001
%RSD		11.660	0.774	2.405	187.300	30.580	132.100	0.000	7.781
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	72.262%	-0.016	-0.030	73.587%	-0.295	-0.283	-0.083	-0.061
2	15:36:26	73.093%	-0.062	-0.068	73.933%	-0.308	-0.295	-0.101	-0.086
3	15:36:45	73.361%	-0.046	-0.058	73.996%	-0.278	-0.267	-0.145	-0.105
X		72.905%	-0.041	-0.052	73.839%	-0.293	-0.282	-0.110	-0.084
σ		0.573%	0.023	0.020	0.220%	0.015	0.014	0.032	0.022
%RSD		0.786	56.520	37.590	0.298	5.185	5.053	28.960	26.060
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:36:07	77.345%	-0.085	-0.098	-0.110	0.042	0.024	83.336%	83.755%
2	15:36:26	78.803%	-0.094	-0.092	-0.083	0.021	0.034	85.522%	86.081%
3	15:36:45	80.085%	-0.198	-0.092	-0.086	0.040	0.030	87.846%	88.319%
X		78.744%	-0.126	-0.094	-0.093	0.034	0.029	85.568%	86.052%
σ		1.371%	0.063	0.003	0.015	0.012	0.005	2.255%	2.282%
%RSD		1.741	49.750	3.566	15.720	33.560	18.280	2.636	2.652
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:36:07	-0.004	-0.003	0.021	0.021	0.026	85.271%		
2	15:36:26	-0.004	-0.005	0.021	0.015	0.022	85.746%		
3	15:36:45	-0.004	-0.005	0.022	0.016	0.021	87.099%		
X		-0.004	-0.005	0.021	0.017	0.023	86.039%		
σ		0.000	0.001	0.001	0.003	0.002	0.948%		
%RSD		1.214	24.020	2.988	19.850	10.900	1.102		

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11/4/2014 3:39:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	71.005%	48.270	985.300	948.100	0.000	49640.000	47320.000	47230.000
2	15:39:56	70.094%	46.900	994.000	960.000	0.000	51400.000	48100.000	48560.000
3	15:40:15	70.121%	46.880	993.200	949.200	0.000	51130.000	48260.000	48070.000
X		70.407%	47.350	990.800	952.400	0.000	50720.000	47890.000	47950.000
σ		0.518%	0.796	4.826	6.559	0.000	948.500	505.300	674.400
%RSD		0.736	1.681	0.487	0.689	0.000	1.870	1.055	1.406
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	1843.000	8195.000	0.000	49590.000	51520.000	51940.000	57.525%	1001.000
2	15:39:56	1907.000	8376.000	0.000	51630.000	54240.000	53780.000	54.593%	1024.000
3	15:40:15	1880.000	8247.000	0.000	51120.000	54420.000	53950.000	53.977%	1029.000
X		1877.000	8273.000	0.000	50780.000	53390.000	53220.000	55.365%	1018.000
σ		32.020	93.620	0.000	1060.000	1629.000	1116.000	1.896%	14.820
%RSD		1.706	1.132	0.000	2.087	3.051	2.097	3.424	1.455
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	491.000	198.000	507.600	1030.000	1034.000	498.500	489.800	240.800
2	15:39:56	507.700	201.500	528.100	1057.000	1089.000	509.000	491.600	242.500
3	15:40:15	505.900	200.900	523.100	1049.000	1080.000	508.300	493.100	242.100
X		501.500	200.100	519.600	1046.000	1068.000	505.300	491.500	241.800
σ		9.178	1.893	10.710	13.590	29.470	5.865	1.636	0.866
%RSD		1.830	0.946	2.062	1.300	2.761	1.161	0.333	0.358
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	241.700	457.600	461.700	34.620	8.069	9.897	0.000	1112.000
2	15:39:56	242.700	466.500	473.300	33.880	7.773	8.180	0.000	1097.000
3	15:40:15	242.500	466.800	472.800	35.750	7.558	10.140	0.000	1096.000
X		242.300	463.600	469.200	34.750	7.800	9.405	0.000	1101.000
σ		0.545	5.260	6.571	0.940	0.257	1.068	0.000	8.750
%RSD		0.225	1.134	1.400	2.706	3.293	11.350	0.000	0.794
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	60.076%	1151.000	1158.000	61.185%	50.410	50.490	48.390	42.540
2	15:39:56	60.545%	1148.000	1155.000	61.150%	49.990	50.000	48.460	42.230
3	15:40:15	60.681%	1148.000	1161.000	60.923%	49.890	50.180	47.680	41.650
X		60.434%	1149.000	1158.000	61.086%	50.100	50.220	48.170	42.140
σ		0.317%	1.759	2.855	0.142%	0.278	0.248	0.430	0.455
%RSD		0.525	0.153	0.247	0.233	0.554	0.494	0.893	1.080
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:37	68.491%	2101.000	473.700	471.800	1941.000	1958.000	79.776%	82.046%
2	15:39:56	70.423%	2047.000	468.200	470.500	1920.000	1929.000	81.760%	83.740%
3	15:40:15	70.737%	2033.000	464.900	467.600	1900.000	1902.000	83.889%	84.160%
X		69.884%	2061.000	468.900	470.000	1920.000	1930.000	81.808%	83.316%
σ		1.216%	35.850	4.459	2.143	20.660	28.100	2.057%	1.119%
%RSD		1.740	1.740	0.951	0.456	1.076	1.456	2.515	1.343
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:39:37	55.040	56.080	22.560	22.870	22.770	67.413%		
2	15:39:56	56.700	57.010	22.670	23.300	23.010	67.630%		
3	15:40:15	56.920	57.920	23.000	23.350	23.380	67.817%		
X		56.220	57.010	22.740	23.180	23.050	67.620%		
σ		1.032	0.923	0.226	0.265	0.308	0.202%		
%RSD		1.835	1.619	0.993	1.145	1.336	0.299		

LCSD 180-123572/3-A

11/4/2014 3:42:49 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	70.156%	48.130	984.300	964.900	0.000	50650.000	47520.000	47800.000
2	15:43:27	71.087%	46.940	966.800	946.900	0.000	50220.000	47270.000	47310.000
3	15:43:46	68.772%	47.320	992.100	946.300	0.000	49480.000	46790.000	47120.000
X		70.005%	47.460	981.100	952.700	0.000	50120.000	47190.000	47410.000
σ		1.165%	0.605	12.940	10.580	0.000	593.800	374.200	349.100
%RSD		1.664	1.274	1.319	1.111	0.000	1.185	0.793	0.736
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	1892.000	8487.000	0.000	50150.000	52510.000	52430.000	56.495%	1023.000
2	15:43:27	1853.000	8351.000	0.000	50340.000	53230.000	52930.000	55.601%	1035.000
3	15:43:46	1834.000	8133.000	0.000	48990.000	51570.000	51040.000	56.881%	986.800
X		1860.000	8324.000	0.000	49820.000	52440.000	52130.000	56.325%	1015.000
σ		29.680	178.500	0.000	730.600	830.300	979.800	0.656%	24.920
%RSD		1.596	2.144	0.000	1.466	1.584	1.880	1.165	2.456
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	497.000	198.700	514.900	1049.000	1070.000	505.000	497.100	241.300
2	15:43:27	502.500	199.700	517.200	1035.000	1072.000	502.600	488.600	241.900
3	15:43:46	481.100	193.800	501.800	998.900	1038.000	488.400	477.500	234.800
X		493.500	197.400	511.300	1028.000	1060.000	498.700	487.700	239.300
σ		11.090	3.153	8.347	25.960	19.360	8.931	9.843	3.941
%RSD		2.247	1.597	1.633	2.526	1.827	1.791	2.018	1.646
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	243.000	455.500	461.300	34.990	8.042	8.676	0.000	1082.000
2	15:43:27	239.300	456.800	458.800	33.490	8.163	8.912	0.000	1076.000
3	15:43:46	235.700	450.300	451.200	32.610	7.509	9.831	0.000	1077.000
X		239.300	454.200	457.100	33.690	7.905	9.140	0.000	1078.000
σ		3.640	3.426	5.284	1.201	0.348	0.610	0.000	3.533
%RSD		1.521	0.754	1.156	3.566	4.399	6.678	0.000	0.328
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	59.891%	1140.000	1151.000	60.754%	48.550	48.990	46.470	40.410
2	15:43:27	60.701%	1138.000	1157.000	61.313%	49.100	48.670	47.300	41.380
3	15:43:46	60.694%	1144.000	1157.000	60.879%	49.140	49.280	48.000	40.950
X		60.429%	1140.000	1155.000	60.982%	48.930	48.980	47.260	40.910
σ		0.466%	3.145	3.673	0.293%	0.331	0.303	0.765	0.488
%RSD		0.771	0.276	0.318	0.481	0.676	0.619	1.619	1.193
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:08	68.379%	2070.000	471.500	463.900	1875.000	1876.000	79.677%	80.980%
2	15:43:27	69.911%	2026.000	467.100	464.700	1867.000	1874.000	80.570%	82.779%
3	15:43:46	69.833%	2068.000	471.800	470.300	1863.000	1873.000	82.944%	84.441%
X		69.374%	2055.000	470.100	466.300	1868.000	1874.000	81.064%	82.733%
σ		0.863%	24.530	2.645	3.472	5.702	1.439	1.689%	1.731%
%RSD		1.244	1.194	0.563	0.745	0.305	0.077	2.083	2.092
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:43:08	54.180	54.540	21.960	21.600	22.040	66.417%		
2	15:43:27	54.990	55.920	22.410	22.560	22.580	66.924%		
3	15:43:46	55.320	55.990	22.170	22.470	22.390	67.954%		
X		54.830	55.480	22.180	22.210	22.340	67.098%		
σ		0.590	0.814	0.223	0.530	0.271	0.783%		
%RSD		1.076	1.467	1.006	2.388	1.213	1.166		

180-38248-B-1-A @10

11/4/2014 3:46:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	70.410%	-0.014	629.600	621.100	0.000	294.300	2909.000	2894.000
2	15:47:00	70.174%	-0.014	637.300	628.900	0.000	292.000	2906.000	2915.000
3	15:47:19	69.932%	-0.002	626.800	619.900	0.000	296.000	2905.000	2920.000
X		70.172%	-0.010	631.200	623.300	0.000	294.100	2907.000	2910.000
σ		0.239%	0.007	5.449	4.917	0.000	2.029	2.317	13.940
%RSD		0.341	69.830	0.863	0.789	0.000	0.690	0.080	0.479
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	3.102	149.500	0.000	114.500	18180.000	17870.000	67.929%	0.275
2	15:47:00	3.352	147.900	0.000	113.400	18130.000	18050.000	66.714%	0.281
3	15:47:19	3.215	146.500	0.000	114.000	18160.000	18220.000	66.109%	0.148
X		3.223	148.000	0.000	114.000	18150.000	18050.000	66.917%	0.235
σ		0.125	1.525	0.000	0.527	24.310	171.500	0.927%	0.075
%RSD		3.881	1.030	0.000	0.462	0.134	0.950	1.386	32.130
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	-0.004	0.171	10.230	-2.072	11.490	0.006	0.967	-0.054
2	15:47:00	0.075	0.155	10.300	-2.698	10.590	0.012	0.896	-0.088
3	15:47:19	0.006	0.156	10.400	-4.123	10.140	0.005	0.894	-0.068
X		0.026	0.161	10.310	-2.965	10.740	0.008	0.919	-0.070
σ		0.043	0.009	0.086	1.051	0.686	0.004	0.041	0.017
%RSD		166.100	5.626	0.838	35.460	6.386	48.110	4.514	24.140
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	-0.062	10.050	9.981	-0.070	3.634	3.119	0.000	85.640
2	15:47:00	-0.101	10.120	10.500	0.336	3.225	3.598	0.000	86.130
3	15:47:19	-0.067	9.844	10.240	-0.258	3.950	2.774	0.000	86.780
X		-0.077	10.000	10.240	0.003	3.603	3.164	0.000	86.180
σ		0.021	0.143	0.259	0.303	0.363	0.413	0.000	0.571
%RSD		27.630	1.432	2.532	11110.000	10.090	13.070	0.000	0.662
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	73.474%	2.232	2.072	72.614%	-0.314	-0.288	0.231	0.310
2	15:47:00	73.804%	1.808	1.911	73.280%	-0.312	-0.295	0.139	0.257
3	15:47:19	74.102%	1.471	1.512	73.179%	-0.287	-0.286	0.236	0.282
X		73.793%	1.837	1.832	73.024%	-0.304	-0.290	0.202	0.283
σ		0.314%	0.381	0.288	0.359%	0.015	0.004	0.054	0.027
%RSD		0.425	20.740	15.740	0.492	5.044	1.542	26.940	9.372
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:46:40	78.263%	0.915	-0.002	0.014	0.743	0.691	82.980%	84.045%
2	15:47:00	79.592%	0.671	0.027	0.023	0.653	0.516	85.927%	86.685%
3	15:47:19	79.746%	0.353	0.015	-0.012	0.570	0.621	87.001%	87.803%
X		79.200%	0.647	0.013	0.008	0.655	0.609	85.302%	86.178%
σ		0.816%	0.282	0.015	0.018	0.087	0.088	2.082%	1.930%
%RSD		1.030	43.580	112.100	220.500	13.230	14.510	2.440	2.240
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:46:40	0.094	0.095	0.007	0.012	0.010	84.025%		
2	15:47:00	0.084	0.108	0.015	0.013	0.011	84.212%		
3	15:47:19	0.095	0.088	0.010	-0.003	0.009	84.756%		
X		0.091	0.097	0.011	0.007	0.010	84.331%		
σ		0.006	0.010	0.004	0.009	0.001	0.380%		
%RSD		6.894	10.180	37.420	119.500	11.770	0.450		

180-38248-B-2-A

11/4/2014 3:49:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	86.462%	0.006	24.370	23.550	0.000	134.700	17.670	16.410
2	15:50:32	86.058%	0.006	23.290	21.710	0.000	137.500	16.620	16.920
3	15:50:51	87.463%	-0.004	19.960	19.480	0.000	135.700	15.840	16.800
X		86.661%	0.003	22.540	21.580	0.000	136.000	16.710	16.710
σ		0.723%	0.006	2.302	2.037	0.000	1.382	0.918	0.269
%RSD		0.835	222.300	10.210	9.439	0.000	1.017	5.496	1.608
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	10.850	85.970	0.000	161.500	78.380	87.850	63.787%	2.876
2	15:50:32	10.720	86.890	0.000	161.800	84.380	89.320	64.365%	1.921
3	15:50:51	10.740	83.500	0.000	162.600	100.400	87.650	63.698%	2.294
X		10.770	85.450	0.000	162.000	87.730	88.270	63.950%	2.364
σ		0.070	1.751	0.000	0.548	11.400	0.911	0.362%	0.482
%RSD		0.648	2.049	0.000	0.338	13.000	1.032	0.566	20.370
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	-0.212	1.037	0.610	-2.798	3.264	0.004	0.445	0.070
2	15:50:32	-0.462	1.194	0.648	-4.343	3.828	0.000	0.478	0.039
3	15:50:51	-0.185	1.099	0.641	-4.596	3.226	0.007	0.495	0.052
X		-0.286	1.110	0.633	-3.912	3.439	0.004	0.473	0.054
σ		0.153	0.079	0.020	0.973	0.338	0.003	0.025	0.015
%RSD		53.450	7.098	3.195	24.870	9.814	85.060	5.337	28.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	0.079	4.773	4.708	-0.350	-0.708	-1.672	0.000	0.213
2	15:50:32	0.074	4.657	4.492	0.034	-0.705	-0.803	0.000	0.246
3	15:50:51	0.037	4.753	4.670	-1.457	-0.653	-1.310	0.000	0.236
X		0.063	4.727	4.624	-0.591	-0.689	-1.262	0.000	0.232
σ		0.023	0.062	0.116	0.774	0.031	0.437	0.000	0.017
%RSD		35.740	1.314	2.500	130.900	4.441	34.600	0.000	7.313
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	70.675%	0.728	0.771	69.377%	-0.187	-0.181	-0.072	-0.073
2	15:50:32	72.293%	0.741	0.646	71.056%	-0.173	-0.165	-0.121	-0.104
3	15:50:51	72.474%	0.586	0.651	71.133%	-0.151	-0.140	-0.109	-0.096
X		71.814%	0.685	0.689	70.522%	-0.170	-0.162	-0.101	-0.091
σ		0.991%	0.086	0.071	0.993%	0.018	0.021	0.026	0.016
%RSD		1.379	12.560	10.310	1.407	10.750	12.900	25.600	17.710
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:13	74.382%	3.426	0.080	0.047	0.120	0.151	83.057%	83.998%
2	15:50:32	76.867%	2.833	0.026	0.059	0.129	0.146	85.913%	88.089%
3	15:50:51	77.379%	2.632	0.085	0.046	0.161	0.148	87.288%	88.778%
X		76.209%	2.964	0.064	0.051	0.136	0.148	85.420%	86.955%
σ		1.603%	0.413	0.033	0.007	0.022	0.003	2.158%	2.584%
%RSD		2.104	13.920	51.230	14.310	15.820	1.759	2.527	2.972
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:50:13	0.014	0.016	0.059	0.049	0.050	77.417%		
2	15:50:32	0.010	0.013	0.055	0.064	0.061	79.093%		
3	15:50:51	0.016	0.008	0.051	0.050	0.050	79.978%		
X		0.013	0.013	0.055	0.054	0.054	78.829%		
σ		0.003	0.004	0.004	0.009	0.006	1.301%		
%RSD		22.130	34.020	7.440	16.220	11.590	1.650		



CCV 1369903 11/4/2014 3:53:33 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	70.998%	98.760	100.900	102.900	0.000	50650.000	49590.000	49350.000
2	15:53:53	69.699%	99.320	103.400	99.250	0.000	50660.000	49580.000	49750.000
3	15:54:12	68.939%	98.770	99.400	100.800	0.000	50910.000	49930.000	49840.000
X		69.879%	98.952%	101.241%	100.990%	0.000	101.486%	99.397%	99.292%
σ		1.041%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.490	0.324	2.022	1.797	0.000	0.293	0.402	0.531
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	503.500	4768.000	0.000	49930.000	50370.000	50080.000	72.177%	100.300
2	15:53:53	508.800	4752.000	0.000	50190.000	50600.000	50880.000	70.219%	101.200
3	15:54:12	510.900	4769.000	0.000	50630.000	51270.000	51210.000	70.237%	101.100
X		101.546%	95.256%	0.000	100.500%	101.488%	101.451%	70.878%	100.886%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.125%	n/a
%RSD		0.754	0.200	0.000	0.700	0.920	1.142	1.588	0.476
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	96.910	97.700	501.000	25210.000	25080.000	98.280	98.850	100.100
2	15:53:53	98.390	98.960	508.900	25620.000	25400.000	100.300	101.200	101.300
3	15:54:12	97.690	99.870	509.200	25480.000	25350.000	99.960	100.100	100.700
X		97.666%	98.844%	101.277%	101.744%	101.112%	99.532%	100.028%	100.703%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.760	1.102	0.927	0.822	0.680	1.103	1.159	0.594
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	100.600	105.500	105.500	99.040	103.100	102.700	0.000	99.320
2	15:53:53	101.100	107.900	108.700	99.700	103.300	103.100	0.000	99.480
3	15:54:12	99.720	108.200	108.400	101.300	100.900	101.900	0.000	100.600
X		100.492%	107.190%	107.519%	99.998%	102.442%	102.575%	0.000	99.811%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.707	1.335	1.657	1.137	1.281	0.627	0.000	0.714
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	74.120%	93.770	94.690	69.693%	99.950	99.760	101.900	99.530
2	15:53:53	75.651%	99.550	101.300	70.354%	100.900	100.600	102.800	102.800
3	15:54:12	75.769%	103.500	106.500	70.316%	102.300	101.900	102.300	101.500
X		75.180%	98.938%	100.813%	70.121%	101.040%	100.751%	102.324%	101.287%
σ		0.920%	n/a	n/a	0.371%	n/a	n/a	n/a	n/a
%RSD		1.223	4.945	5.865	0.529	1.183	1.073	0.442	1.632
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:33	76.208%	99.340	98.490	96.580	97.060	99.330	79.855%	81.138%
2	15:53:53	77.531%	99.570	99.770	99.540	97.500	98.420	83.399%	84.956%
3	15:54:12	78.061%	100.900	100.800	101.700	99.540	99.360	84.567%	85.359%
X		77.267%	99.943%	99.689%	99.286%	98.033%	99.038%	82.607%	83.818%
σ		0.955%	n/a	n/a	n/a	n/a	n/a	2.454%	2.329%
%RSD		1.235	0.853	1.164	2.606	1.353	0.542	2.971	2.779
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:53:33	104.100	104.900	105.100	105.700	105.300	74.299%		
2	15:53:53	106.600	107.100	108.600	108.900	108.600	75.471%		
3	15:54:12	107.600	108.900	107.800	109.500	109.100	76.543%		
X		106.107%	106.992%	107.139%	108.052%	107.667%	75.438%		
σ		n/a	n/a	n/a	n/a	n/a	1.122%		
%RSD		1.697	1.857	1.715	1.892	1.918	1.487		

CCB3 11/4/2014 3:59:28 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	84.602%	-0.014	5.022	5.817	0.000	17.390	1.231	1.123
2	16:00:07	84.669%	0.016	5.036	4.106	0.000	18.250	1.034	1.420
3	16:00:26	84.562%	-0.014	3.660	3.392	0.000	18.730	1.504	1.256
X		84.611%	-0.004	4.573	4.438	0.000	18.120	1.256	1.266
σ		0.054%	0.017	0.790	1.246	0.000	0.681	0.236	0.149
%RSD		0.064	419.900	17.290	28.080	0.000	3.756	18.810	11.760
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	2.692	5.072	0.000	-7.416	40.480	30.890	87.813%	-0.031
2	16:00:07	3.298	4.789	0.000	-6.673	21.030	31.530	86.020%	0.036
3	16:00:26	2.681	4.782	0.000	-7.149	27.440	31.080	85.860%	0.022
X		2.891	4.881	0.000	-7.079	29.650	31.170	86.565%	0.009
σ		0.353	0.165	0.000	0.377	9.909	0.332	1.085%	0.035
%RSD		12.220	3.388	0.000	5.320	33.420	1.065	1.253	388.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	0.018	0.040	0.063	3.413	7.858	-0.001	0.093	-0.081
2	16:00:07	-0.001	0.037	0.075	2.070	6.074	-0.002	0.129	-0.066
3	16:00:26	-0.037	0.012	0.060	0.743	4.083	-0.002	0.118	-0.087
X		-0.007	0.030	0.066	2.075	6.005	-0.002	0.113	-0.078
σ		0.028	0.015	0.008	1.335	1.888	0.001	0.019	0.011
%RSD		420.000	50.620	11.800	64.330	31.450	43.070	16.400	13.660
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	-0.077	1.891	1.779	-0.186	-0.115	-0.386	0.000	0.021
2	16:00:07	-0.088	1.693	2.054	-0.273	-0.278	-0.873	0.000	0.028
3	16:00:26	-0.064	1.648	1.688	-0.213	-0.268	-0.695	0.000	0.020
X		-0.076	1.744	1.841	-0.224	-0.220	-0.651	0.000	0.023
σ		0.012	0.129	0.190	0.045	0.091	0.247	0.000	0.004
%RSD		15.840	7.414	10.340	19.910	41.520	37.880	0.000	19.650
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	81.431%	0.225	0.239	82.266%	-0.285	-0.281	-0.006	-0.016
2	16:00:07	82.106%	0.163	0.239	82.595%	-0.290	-0.263	0.022	0.013
3	16:00:26	82.659%	0.162	0.262	82.718%	-0.289	-0.271	-0.051	-0.042
X		82.066%	0.183	0.247	82.526%	-0.288	-0.272	-0.012	-0.015
σ		0.615%	0.036	0.013	0.234%	0.002	0.009	0.037	0.027
%RSD		0.749	19.820	5.337	0.284	0.848	3.198	315.000	184.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:48	85.660%	-0.414	0.062	0.061	0.032	0.029	85.977%	86.651%
2	16:00:07	86.268%	-0.409	0.047	0.037	0.007	0.014	89.808%	90.113%
3	16:00:26	87.784%	-0.432	0.040	0.032	0.019	0.041	90.931%	91.900%
X		86.571%	-0.418	0.050	0.043	0.019	0.028	88.906%	89.555%
σ		1.094%	0.012	0.011	0.015	0.013	0.014	2.597%	2.669%
%RSD		1.264	2.867	22.830	35.270	65.760	49.020	2.921	2.980
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:59:48	0.005	0.000	0.029	0.040	0.034	92.873%		
2	16:00:07	0.001	0.002	0.030	0.043	0.033	94.112%		
3	16:00:26	0.006	0.001	0.034	0.039	0.036	94.236%		
X		0.004	0.001	0.031	0.040	0.034	93.740%		
σ		0.003	0.001	0.003	0.002	0.001	0.754%		
%RSD		64.470	76.580	9.556	4.855	3.789	0.804		

180-38248-B-1-A

11/4/2014 4:03:02 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	66.680%	0.038	6042.000	5935.000	0.000	2717.000	27350.000	27570.000
2	16:03:42	64.717%	-0.014	5988.000	5906.000	0.000	2699.000	27230.000	27270.000
3	16:04:01	64.045%	-0.001	5915.000	5665.000	0.000	2660.000	26480.000	26610.000
X		65.147%	0.008	5982.000	5835.000	0.000	2692.000	27020.000	27150.000
σ		1.370%	0.027	63.780	148.400	0.000	29.180	470.000	492.300
%RSD		2.102	350.900	1.066	2.543	0.000	1.084	1.739	1.814
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	20.960	1318.000	0.000	1191.000	187100.000	188800.000	53.166%	0.704
2	16:03:42	21.330	1287.000	0.000	1197.000	190400.000	189300.000	49.892%	0.775
3	16:04:01	20.540	1249.000	0.000	1172.000	186100.000	188200.000	49.982%	0.751
X		20.940	1284.000	0.000	1186.000	187900.000	188700.000	51.013%	0.744
σ		0.395	34.570	0.000	12.910	2263.000	549.400	1.865%	0.036
%RSD		1.888	2.691	0.000	1.088	1.204	0.291	3.656	4.856
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	-0.161	0.886	102.800	2.024	94.670	0.058	7.985	0.503
2	16:03:42	-1.011	0.827	103.500	-0.106	90.400	0.066	7.867	0.382
3	16:04:01	-0.863	0.780	101.700	-2.645	83.160	0.067	7.790	0.380
X		-0.678	0.831	102.700	-0.242	89.410	0.064	7.881	0.421
σ		0.454	0.053	0.899	2.337	5.821	0.005	0.098	0.070
%RSD		66.940	6.435	0.875	965.400	6.510	7.667	1.246	16.720
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	0.495	65.800	65.430	1.097	30.530	32.090	0.000	892.200
2	16:03:42	0.556	66.570	66.540	0.840	30.660	31.310	0.000	892.900
3	16:04:01	0.255	64.790	66.370	1.774	29.530	31.140	0.000	883.700
X		0.436	65.720	66.110	1.237	30.240	31.520	0.000	889.600
σ		0.159	0.895	0.599	0.483	0.620	0.509	0.000	5.075
%RSD		36.490	1.361	0.906	39.010	2.050	1.614	0.000	0.571
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	63.253%	3.520	3.842	59.114%	-0.283	-0.289	3.120	3.035
2	16:03:42	62.300%	3.912	3.896	57.635%	-0.303	-0.271	3.235	2.927
3	16:04:01	62.115%	3.680	3.919	57.293%	-0.272	-0.278	3.183	3.069
X		62.556%	3.704	3.886	58.014%	-0.286	-0.279	3.179	3.010
σ		0.611%	0.197	0.039	0.968%	0.016	0.009	0.057	0.074
%RSD		0.976	5.326	1.014	1.669	5.482	3.348	1.801	2.459
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:22	67.022%	2.955	0.847	0.872	6.082	6.125	78.430%	79.886%
2	16:03:42	67.109%	2.759	0.746	0.779	6.250	6.310	79.118%	81.577%
3	16:04:01	67.425%	2.738	0.645	0.716	5.899	5.936	81.221%	82.296%
X		67.185%	2.817	0.746	0.789	6.077	6.124	79.589%	81.253%
σ		0.212%	0.120	0.101	0.079	0.176	0.187	1.454%	1.237%
%RSD		0.315	4.249	13.530	9.984	2.891	3.053	1.827	1.522
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:03:22	0.575	0.567	0.039	0.045	0.041	67.011%		
2	16:03:42	0.586	0.603	0.042	0.039	0.045	67.408%		
3	16:04:01	0.594	0.584	0.056	0.036	0.048	68.212%		
X		0.585	0.585	0.046	0.040	0.045	67.544%		
σ		0.009	0.018	0.009	0.005	0.004	0.612%		
%RSD		1.604	3.024	19.660	12.480	7.850	0.906		

180-38248-B-3-A

11/4/2014 4:09:16 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	76.292%	-0.014	32.210	29.520	0.000	51.100	3.054	3.494
2	16:09:55	79.278%	0.008	26.700	26.060	0.000	50.360	3.175	3.467
3	16:10:14	79.484%	-0.014	23.810	24.350	0.000	50.490	3.136	3.736
X		78.351%	-0.007	27.570	26.640	0.000	50.650	3.122	3.566
σ		1.786%	0.013	4.266	2.630	0.000	0.393	0.062	0.148
%RSD		2.280	187.700	15.470	9.872	0.000	0.776	1.985	4.154
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	14.350	38.250	0.000	10.880	29.880	28.100	56.613%	1.533
2	16:09:55	13.750	36.110	0.000	11.360	16.460	25.850	56.797%	1.012
3	16:10:14	14.400	35.080	0.000	12.020	23.960	29.900	56.951%	1.503
X		14.170	36.480	0.000	11.420	23.430	27.950	56.787%	1.349
σ		0.361	1.618	0.000	0.574	6.726	2.031	0.169%	0.292
%RSD		2.552	4.435	0.000	5.022	28.700	7.268	0.298	21.670
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	-0.332	0.929	0.236	-5.484	2.736	0.002	0.167	-0.101
2	16:09:55	-0.305	0.889	0.200	-5.963	2.075	0.001	0.215	-0.082
3	16:10:14	-1.258	0.920	0.224	-5.433	2.507	-0.001	0.160	-0.022
X		-0.632	0.913	0.220	-5.627	2.440	0.001	0.181	-0.068
σ		0.543	0.021	0.018	0.293	0.336	0.001	0.030	0.041
%RSD		85.910	2.341	8.405	5.201	13.760	149.100	16.400	60.690
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	-0.088	2.707	2.748	0.464	-0.570	-1.219	0.000	0.073
2	16:09:55	-0.010	2.735	2.784	-1.847	-0.643	-1.470	0.000	0.083
3	16:10:14	-0.048	3.031	2.733	-0.630	-0.516	-0.846	0.000	0.076
X		-0.049	2.824	2.755	-0.671	-0.576	-1.178	0.000	0.077
σ		0.039	0.180	0.026	1.156	0.064	0.314	0.000	0.005
%RSD		80.600	6.359	0.950	172.200	11.030	26.630	0.000	6.382
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	65.526%	0.064	0.081	64.702%	-0.305	-0.298	-0.128	-0.089
2	16:09:55	66.934%	0.035	0.113	65.985%	-0.316	-0.284	-0.160	-0.112
3	16:10:14	67.061%	0.048	0.075	66.380%	-0.288	-0.268	-0.131	-0.133
X		66.507%	0.049	0.089	65.689%	-0.303	-0.283	-0.140	-0.111
σ		0.852%	0.014	0.020	0.877%	0.014	0.015	0.018	0.022
%RSD		1.281	29.420	22.800	1.335	4.541	5.371	12.570	19.730
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:35	70.448%	1.635	0.021	0.040	0.024	0.047	79.276%	81.320%
2	16:09:55	72.213%	1.704	0.060	0.019	0.044	0.069	82.650%	84.652%
3	16:10:14	73.491%	1.677	0.004	0.049	0.043	0.032	84.942%	86.626%
X		72.051%	1.672	0.028	0.036	0.037	0.050	82.290%	84.199%
σ		1.527%	0.035	0.029	0.016	0.011	0.019	2.850%	2.682%
%RSD		2.120	2.083	102.100	43.270	30.890	37.840	3.463	3.186
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:09:35	0.003	-0.003	0.030	0.019	0.030	75.803%		
2	16:09:55	-0.001	-0.002	0.023	0.048	0.030	77.037%		
3	16:10:14	-0.002	-0.003	0.026	0.026	0.026	78.711%		
X		-0.000	-0.003	0.026	0.031	0.029	77.184%		
σ		0.003	0.000	0.004	0.015	0.002	1.460%		
%RSD		25050.000	16.670	14.770	49.290	8.745	1.891		

180-38248-B-4-A

11/4/2014 4:12:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	77.747%	-0.014	26.400	25.530	0.000	127.800	2.713	2.928
2	16:13:26	78.850%	-0.003	21.850	23.840	0.000	128.900	2.776	2.906
3	16:13:46	79.377%	-0.003	23.400	22.580	0.000	130.000	3.327	3.153
X		78.658%	-0.007	23.880	23.980	0.000	128.900	2.939	2.996
σ		0.832%	0.006	2.313	1.479	0.000	1.095	0.338	0.136
%RSD		1.058	94.310	9.684	6.166	0.000	0.849	11.500	4.552
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	8.456	29.980	0.000	8.165	22.080	24.420	56.981%	0.970
2	16:13:26	8.875	30.050	0.000	8.053	10.910	22.040	56.310%	1.580
3	16:13:46	8.573	28.280	0.000	8.247	12.700	20.400	56.683%	1.391
X		8.635	29.440	0.000	8.155	15.230	22.290	56.658%	1.314
σ		0.216	1.003	0.000	0.097	6.001	2.020	0.336%	0.312
%RSD		2.505	3.407	0.000	1.193	39.400	9.063	0.594	23.770
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	0.577	1.040	0.140	-5.714	2.778	-0.006	0.289	0.004
2	16:13:26	-1.032	1.112	0.151	-5.397	1.998	-0.003	0.266	0.034
3	16:13:46	-1.119	1.114	0.156	-6.968	2.364	0.003	0.234	0.034
X		-0.525	1.089	0.149	-6.026	2.380	-0.002	0.263	0.024
σ		0.955	0.042	0.008	0.831	0.390	0.005	0.027	0.017
%RSD		182.000	3.865	5.529	13.780	16.400	297.600	10.440	70.790
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	-0.009	2.453	2.461	-0.466	-1.008	-1.427	0.000	0.058
2	16:13:26	0.005	2.625	2.796	-0.772	-0.875	-1.529	0.000	0.059
3	16:13:46	0.007	2.770	2.449	-0.972	-0.782	-1.393	0.000	0.059
X		0.001	2.616	2.568	-0.736	-0.888	-1.450	0.000	0.059
σ		0.008	0.159	0.197	0.255	0.113	0.071	0.000	0.000
%RSD		844.100	6.076	7.659	34.600	12.760	4.880	0.000	0.759
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	65.820%	-0.026	0.023	64.838%	-0.301	-0.287	-0.077	-0.043
2	16:13:26	66.653%	0.032	0.046	65.829%	-0.303	-0.280	-0.100	-0.087
3	16:13:46	67.207%	0.003	0.020	65.908%	-0.273	-0.292	-0.146	-0.106
X		66.560%	0.003	0.030	65.525%	-0.292	-0.287	-0.108	-0.079
σ		0.699%	0.029	0.015	0.597%	0.017	0.006	0.035	0.032
%RSD		1.049	983.700	49.290	0.911	5.711	2.120	32.400	40.780
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:13:07	70.087%	1.403	-0.017	0.008	0.068	0.047	80.018%	81.556%
2	16:13:26	72.398%	1.425	-0.022	-0.028	0.044	0.057	81.999%	83.689%
3	16:13:46	73.408%	1.369	-0.016	-0.020	0.085	0.064	84.479%	86.065%
X		71.964%	1.399	-0.018	-0.013	0.066	0.056	82.165%	83.770%
σ		1.702%	0.028	0.003	0.019	0.020	0.009	2.235%	2.256%
%RSD		2.366	2.010	16.200	139.100	31.120	15.430	2.721	2.693
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:13:07	-0.004	-0.003	0.023	0.020	0.025	75.132%		
2	16:13:26	0.003	-0.004	0.025	0.020	0.025	77.330%		
3	16:13:46	-0.004	-0.003	0.035	0.011	0.025	78.490%		
X		-0.002	-0.003	0.027	0.017	0.025	76.984%		
σ		0.004	0.000	0.006	0.005	0.000	1.705%		
%RSD		217.600	13.090	23.820	30.740	1.985	2.215		

180-38248-B-5-A

11/4/2014 4:16:20 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	77.537%	-0.003	32.100	28.450	0.000	24.620	2.513	2.326
2	16:16:59	77.414%	0.031	28.430	26.200	0.000	25.690	2.514	2.288
3	16:17:18	78.375%	0.008	27.580	26.460	0.000	25.600	2.681	2.199
X		77.775%	0.012	29.370	27.040	0.000	25.300	2.569	2.271
σ		0.523%	0.017	2.405	1.232	0.000	0.595	0.097	0.065
%RSD		0.673	142.900	8.188	4.555	0.000	2.350	3.759	2.873
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	3.258	23.330	0.000	11.050	18.420	16.260	56.668%	1.194
2	16:16:59	3.413	24.170	0.000	11.340	16.510	19.730	56.711%	1.014
3	16:17:18	3.539	23.550	0.000	11.310	22.190	16.800	56.716%	1.191
X		3.404	23.680	0.000	11.230	19.040	17.600	56.698%	1.133
σ		0.141	0.434	0.000	0.163	2.891	1.865	0.027%	0.103
%RSD		4.135	1.832	0.000	1.448	15.180	10.600	0.047	9.121
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	-1.049	1.054	0.135	-6.513	1.618	-0.004	0.256	-0.087
2	16:16:59	0.532	0.985	0.162	-6.641	1.386	-0.007	0.274	-0.054
3	16:17:18	0.471	1.013	0.132	-6.395	1.493	0.000	0.268	-0.069
X		-0.015	1.017	0.143	-6.517	1.499	-0.003	0.266	-0.070
σ		0.896	0.035	0.017	0.123	0.116	0.003	0.009	0.017
%RSD		5940.000	3.443	11.640	1.891	7.745	108.500	3.418	23.930
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	-0.055	2.285	2.301	0.380	-0.595	-0.752	0.000	0.069
2	16:16:59	-0.022	2.275	2.013	-0.627	-0.886	-2.517	0.000	0.066
3	16:17:18	-0.061	2.181	2.237	-0.428	-0.724	-1.040	0.000	0.065
X		-0.046	2.247	2.184	-0.225	-0.735	-1.436	0.000	0.067
σ		0.021	0.057	0.151	0.533	0.146	0.947	0.000	0.002
%RSD		45.050	2.555	6.911	236.700	19.850	65.920	0.000	2.786
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	65.864%	0.073	0.033	65.450%	-0.324	-0.285	-0.117	-0.087
2	16:16:59	67.107%	0.031	0.071	66.368%	-0.297	-0.271	-0.136	-0.117
3	16:17:18	67.918%	0.016	0.074	66.534%	-0.305	-0.261	-0.153	-0.107
X		66.963%	0.040	0.059	66.118%	-0.309	-0.272	-0.135	-0.104
σ		1.035%	0.030	0.023	0.584%	0.014	0.012	0.018	0.015
%RSD		1.545	74.790	38.910	0.883	4.467	4.415	13.160	14.720
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:16:39	70.299%	0.882	-0.027	-0.065	0.024	0.030	80.481%	82.044%
2	16:16:59	72.931%	1.083	-0.026	-0.005	0.093	0.021	82.937%	85.067%
3	16:17:18	73.789%	1.051	-0.039	-0.021	0.022	0.012	85.721%	86.090%
X		72.339%	1.005	-0.031	-0.031	0.046	0.021	83.046%	84.400%
σ		1.818%	0.108	0.007	0.031	0.040	0.009	2.622%	2.104%
%RSD		2.514	10.720	23.260	102.400	87.470	42.030	3.157	2.493
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:16:39	-0.003	-0.004	0.033	0.026	0.033	76.879%		
2	16:16:59	-0.005	-0.003	0.026	0.029	0.024	77.601%		
3	16:17:18	-0.004	-0.005	0.020	0.029	0.021	79.290%		
X		-0.004	-0.004	0.026	0.028	0.026	77.923%		
σ		0.001	0.001	0.007	0.002	0.006	1.237%		
%RSD		18.970	18.970	24.790	6.181	23.980	1.588		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	71.667%	-0.002	11.040	11.710	0.000	18.790	0.861	0.735
2	16:20:32	71.305%	-0.014	10.520	9.996	0.000	19.400	0.999	0.839
3	16:20:51	70.477%	0.010	8.898	9.258	0.000	19.910	0.612	0.892
X		71.150%	-0.002	10.150	10.320	0.000	19.370	0.824	0.822
σ		0.610%	0.012	1.117	1.256	0.000	0.561	0.196	0.080
%RSD		0.858	610.000	11.000	12.170	0.000	2.895	23.760	9.695
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	3.943	6.079	0.000	-4.387	11.420	12.230	61.748%	0.053
2	16:20:32	3.769	6.266	0.000	-4.251	9.988	9.126	60.313%	0.074
3	16:20:51	3.831	5.164	0.000	-4.334	8.376	9.113	59.438%	0.038
X		3.848	5.836	0.000	-4.324	9.929	10.150	60.500%	0.055
σ		0.088	0.590	0.000	0.069	1.524	1.794	1.166%	0.018
%RSD		2.295	10.100	0.000	1.587	15.350	17.670	1.927	33.010
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	-0.381	0.156	0.020	-3.803	1.285	-0.004	0.061	-0.041
2	16:20:32	0.073	0.174	0.022	-5.748	1.026	-0.006	0.072	-0.056
3	16:20:51	-0.044	0.204	0.034	-5.760	0.339	-0.007	0.059	-0.087
X		-0.117	0.178	0.025	-5.103	0.883	-0.005	0.064	-0.061
σ		0.236	0.024	0.008	1.126	0.489	0.001	0.007	0.024
%RSD		201.100	13.600	30.020	22.070	55.320	25.870	10.900	38.290
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	0.008	1.619	1.914	0.068	-0.485	-1.046	0.000	0.023
2	16:20:32	-0.033	1.861	1.861	0.200	-0.313	-0.585	0.000	0.018
3	16:20:51	-0.080	2.038	1.985	-0.182	-0.190	-0.957	0.000	0.017
X		-0.035	1.839	1.920	0.029	-0.329	-0.863	0.000	0.019
σ		0.044	0.210	0.062	0.194	0.148	0.245	0.000	0.003
%RSD		126.800	11.420	3.239	678.500	45.030	28.340	0.000	14.900
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	69.095%	-0.067	-0.056	69.837%	-0.294	-0.297	-0.094	-0.080
2	16:20:32	69.324%	-0.071	-0.062	70.207%	-0.300	-0.300	-0.112	-0.096
3	16:20:51	69.447%	-0.091	-0.060	69.956%	-0.310	-0.301	-0.107	-0.084
X		69.289%	-0.076	-0.059	70.000%	-0.301	-0.299	-0.104	-0.087
σ		0.179%	0.013	0.003	0.189%	0.008	0.002	0.009	0.009
%RSD		0.258	16.850	5.623	0.270	2.577	0.700	8.566	9.916
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:20:12	74.019%	-0.514	-0.123	-0.127	-0.005	0.037	80.765%	81.761%
2	16:20:32	75.168%	-0.521	-0.130	-0.101	0.015	0.024	82.919%	83.904%
3	16:20:51	76.209%	-0.469	-0.130	-0.119	0.029	0.020	84.529%	85.410%
X		75.132%	-0.502	-0.128	-0.116	0.013	0.027	82.738%	83.692%
σ		1.095%	0.029	0.004	0.014	0.017	0.009	1.889%	1.834%
%RSD		1.458	5.694	3.259	11.770	133.500	32.870	2.283	2.191
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:20:12	-0.004	-0.004	0.007	0.009	0.009	82.546%		
2	16:20:32	-0.006	-0.005	0.016	0.006	0.016	83.391%		
3	16:20:51	-0.004	-0.006	0.020	0.014	0.019	84.278%		
X		-0.004	-0.005	0.014	0.010	0.015	83.405%		
σ		0.001	0.001	0.006	0.004	0.005	0.866%		
%RSD		28.730	18.680	43.960	46.570	33.450	1.038		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	83.776%	0.006	5.135	5.364	0.000	16.160	2.308	2.063
2	16:26:45	83.987%	0.006	3.547	3.661	0.000	16.810	2.126	1.944
3	16:27:04	82.793%	-0.014	4.742	3.445	0.000	16.900	1.656	2.064
X		83.519%	-0.001	4.475	4.157	0.000	16.620	2.030	2.024
σ		0.637%	0.012	0.827	1.051	0.000	0.403	0.336	0.069
%RSD		0.763	1701.000	18.490	25.280	0.000	2.422	16.570	3.421
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	7.570	2.722	0.000	-13.630	15.540	14.710	87.929%	0.020
2	16:26:45	7.664	2.261	0.000	-13.210	21.170	12.830	85.549%	0.221
3	16:27:04	7.604	1.639	0.000	-12.540	15.050	13.150	84.362%	0.090
X		7.613	2.207	0.000	-13.130	17.260	13.570	85.946%	0.110
σ		0.048	0.543	0.000	0.551	3.401	1.004	1.817%	0.102
%RSD		0.626	24.620	0.000	4.198	19.710	7.400	2.114	91.910
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	-0.118	0.396	0.155	6.754	19.800	0.002	0.036	-0.081
2	16:26:45	0.109	0.350	0.179	7.239	20.800	-0.000	0.023	-0.074
3	16:27:04	-0.173	0.356	0.169	15.910	22.270	-0.002	0.007	-0.098
X		-0.061	0.367	0.168	9.968	20.960	-0.000	0.022	-0.084
σ		0.150	0.025	0.012	5.151	1.241	0.002	0.014	0.012
%RSD		247.300	6.751	7.258	51.680	5.920	1195.000	65.690	14.680
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	-0.064	4.917	4.861	-1.351	-1.145	-4.180	0.000	0.029
2	16:26:45	-0.065	4.952	5.109	-1.151	-1.207	-3.946	0.000	0.030
3	16:27:04	-0.051	4.950	5.156	-1.015	-1.159	-4.199	0.000	0.025
X		-0.060	4.940	5.042	-1.172	-1.170	-4.109	0.000	0.028
σ		0.007	0.020	0.159	0.169	0.033	0.141	0.000	0.002
%RSD		12.460	0.397	3.143	14.380	2.788	3.436	0.000	8.150
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	89.774%	-0.087	-0.088	72.381%	-0.312	-0.304	-0.102	-0.086
2	16:26:45	90.386%	-0.090	-0.096	72.521%	-0.314	-0.294	-0.082	-0.062
3	16:27:04	90.301%	-0.107	-0.092	72.624%	-0.297	-0.273	-0.149	-0.102
X		90.153%	-0.095	-0.092	72.509%	-0.308	-0.290	-0.111	-0.084
σ		0.332%	0.011	0.004	0.122%	0.009	0.016	0.034	0.020
%RSD		0.368	11.540	4.080	0.168	2.912	5.507	30.960	24.080
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:25	76.396%	-0.344	-0.127	-0.121	0.084	0.044	81.561%	83.135%
2	16:26:45	77.071%	-0.356	-0.126	-0.116	0.055	0.035	84.841%	86.227%
3	16:27:04	78.429%	-0.347	-0.129	-0.109	0.054	0.057	85.924%	87.056%
X		77.299%	-0.349	-0.127	-0.115	0.065	0.045	84.109%	85.473%
σ		1.036%	0.006	0.001	0.006	0.017	0.011	2.272%	2.066%
%RSD		1.340	1.854	0.876	5.098	26.270	24.500	2.701	2.417
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:26:25	-0.004	-0.005	0.093	0.078	0.087	83.462%		
2	16:26:45	-0.001	-0.005	0.094	0.090	0.086	83.325%		
3	16:27:04	-0.002	-0.004	0.087	0.100	0.091	84.668%		
X		-0.002	-0.005	0.091	0.089	0.088	83.818%		
σ		0.001	0.000	0.004	0.011	0.002	0.739%		
%RSD		64.320	6.111	4.256	12.170	2.740	0.882		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	62.427%	43.760	944.700	910.000	0.000	49670.000	46540.000	46780.000
2	16:30:15	63.619%	43.460	899.300	879.300	0.000	49520.000	46580.000	46550.000
3	16:30:34	63.971%	43.420	909.500	878.800	0.000	49240.000	46490.000	46680.000
X		63.339%	43.550	917.800	889.400	0.000	49470.000	46540.000	46670.000
σ		0.809%	0.186	23.810	17.890	0.000	218.700	47.960	114.000
%RSD		1.277	0.426	2.594	2.012	0.000	0.442	0.103	0.244
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	1851.000	7306.000	0.000	49930.000	51890.000	52680.000	50.275%	1029.000
2	16:30:15	1848.000	7275.000	0.000	49750.000	53060.000	52730.000	49.233%	1034.000
3	16:30:34	1829.000	7216.000	0.000	49790.000	53510.000	52880.000	49.401%	1035.000
X		1843.000	7266.000	0.000	49820.000	52820.000	52760.000	49.636%	1033.000
σ		11.720	45.680	0.000	92.690	834.200	102.500	0.560%	3.147
%RSD		0.636	0.629	0.000	0.186	1.579	0.194	1.127	0.305
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	504.600	204.200	527.500	1116.000	1128.000	519.300	504.800	250.500
2	16:30:15	507.300	205.300	535.600	1118.000	1136.000	525.100	508.500	245.800
3	16:30:34	506.700	204.800	536.100	1106.000	1134.000	514.700	496.100	245.900
X		506.200	204.800	533.100	1113.000	1132.000	519.700	503.100	247.400
σ		1.411	0.543	4.839	6.169	4.214	5.236	6.351	2.702
%RSD		0.279	0.265	0.908	0.554	0.372	1.007	1.262	1.092
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	249.200	444.800	453.200	32.940	7.506	9.743	0.000	1176.000
2	16:30:15	246.400	450.800	453.600	32.730	7.896	8.734	0.000	1176.000
3	16:30:34	247.400	448.600	452.700	33.330	7.361	9.329	0.000	1184.000
X		247.700	448.100	453.200	33.000	7.588	9.269	0.000	1179.000
σ		1.375	3.049	0.470	0.305	0.277	0.507	0.000	4.303
%RSD		0.555	0.681	0.104	0.924	3.650	5.471	0.000	0.365
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	51.115%	1166.000	1151.000	58.368%	47.350	47.390	44.840	38.660
2	16:30:15	51.759%	1175.000	1157.000	58.771%	48.590	48.430	46.430	40.390
3	16:30:34	52.089%	1180.000	1158.000	59.061%	48.170	47.890	44.850	39.240
X		51.654%	1174.000	1155.000	58.733%	48.040	47.900	45.370	39.430
σ		0.495%	7.094	3.462	0.348%	0.633	0.521	0.920	0.881
%RSD		0.958	0.604	0.300	0.592	1.318	1.087	2.027	2.235
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:55	63.045%	2069.000	451.000	448.700	1906.000	1905.000	75.236%	76.254%
2	16:30:15	63.663%	2077.000	457.400	453.100	1902.000	1905.000	78.308%	79.218%
3	16:30:34	65.034%	2051.000	452.000	452.500	1906.000	1906.000	78.805%	80.305%
X		63.914%	2066.000	453.500	451.400	1905.000	1906.000	77.450%	78.592%
σ		1.018%	13.490	3.441	2.400	2.585	0.830	1.933%	2.096%
%RSD		1.593	0.653	0.759	0.532	0.136	0.044	2.496	2.668
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:29:55	55.900	56.360	22.540	22.880	22.970	61.892%		
2	16:30:15	56.990	57.810	22.930	23.000	23.010	63.055%		
3	16:30:34	56.410	57.540	23.070	23.190	23.130	64.294%		
X		56.430	57.240	22.850	23.030	23.040	63.080%		
σ		0.542	0.771	0.277	0.157	0.085	1.201%		
%RSD		0.961	1.347	1.213	0.680	0.369	1.904		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	68.811%	6.438	25.310	24.310	0.000	865.100	23880.000	24090.000
2	16:33:45	66.839%	5.958	23.820	23.910	0.000	872.200	24530.000	24710.000
3	16:34:04	67.501%	6.329	20.700	22.240	0.000	868.000	24180.000	24320.000
X		67.717%	6.242	23.280	23.490	0.000	868.500	24200.000	24370.000
σ		1.003%	0.251	2.349	1.101	0.000	3.587	323.500	311.200
%RSD		1.482	4.028	10.090	4.686	0.000	0.413	1.337	1.277
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	50500.000	3282.000	0.000	6503.000	43660.000	43570.000	60.623%	1688.000
2	16:33:45	50940.000	3300.000	0.000	6606.000	44190.000	43880.000	60.446%	1688.000
3	16:34:04	50420.000	3254.000	0.000	6561.000	44380.000	44140.000	60.008%	1685.000
X		50620.000	3279.000	0.000	6557.000	44080.000	43860.000	60.359%	1687.000
σ		281.900	22.850	0.000	51.660	375.300	285.700	0.317%	1.767
%RSD		0.557	0.697	0.000	0.788	0.851	0.651	0.525	0.105
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	200.400	292.700	2761.000	208800.000	216000.000	136.200	390.900	782.800
2	16:33:45	201.300	294.600	2751.000	208500.000	214800.000	135.900	392.600	785.900
3	16:34:04	197.400	290.300	2759.000	209200.000	215700.000	136.500	391.700	781.900
X		199.700	292.500	2757.000	208800.000	215500.000	136.200	391.700	783.600
σ		2.034	2.160	5.435	373.600	635.600	0.296	0.839	2.106
%RSD		1.019	0.738	0.197	0.179	0.295	0.217	0.214	0.269
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	785.600	2410.000	2456.000	32.770	3.301	4.742	0.000	131.400
2	16:33:45	792.800	2430.000	2472.000	33.780	3.225	4.136	0.000	133.800
3	16:34:04	783.000	2441.000	2477.000	33.760	2.766	5.231	0.000	134.400
X		787.100	2427.000	2468.000	33.440	3.097	4.703	0.000	133.200
σ		5.096	16.100	11.000	0.577	0.290	0.548	0.000	1.602
%RSD		0.647	0.663	0.446	1.727	9.352	11.660	0.000	1.203
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	0.000	20.780	20.990	60.543%	89.770	90.580	5.082	5.166
2	16:33:45	0.000	20.860	21.450	61.224%	91.370	90.080	5.306	5.246
3	16:34:04	0.000	20.640	20.570	62.022%	90.200	89.620	5.606	5.467
X		0.000	20.760	21.010	61.263%	90.450	90.090	5.332	5.293
σ		0.000	0.109	0.440	0.740%	0.828	0.480	0.263	0.156
%RSD		0.000	0.524	2.094	1.208	0.916	0.532	4.928	2.937
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:26	68.758%	92.190	4.525	4.588	661.900	658.500	85.035%	86.157%
2	16:33:45	70.872%	91.690	4.590	4.447	659.900	659.200	87.864%	88.747%
3	16:34:04	72.532%	89.590	4.483	4.361	656.300	655.600	89.667%	90.725%
X		70.720%	91.160	4.533	4.465	659.400	657.800	87.522%	88.543%
σ		1.892%	1.381	0.054	0.115	2.854	1.892	2.335%	2.291%
%RSD		2.675	1.515	1.194	2.571	0.433	0.288	2.668	2.587
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:33:26	1.634	1.656	607.500	569.300	597.900	66.251%		
2	16:33:45	1.714	1.684	609.900	567.000	594.900	68.056%		
3	16:34:04	1.711	1.672	622.200	580.200	605.900	68.564%		
X		1.686	1.671	613.200	572.200	599.600	67.623%		
σ		0.045	0.014	7.907	7.053	5.686	1.216%		
%RSD		2.681	0.842	1.289	1.233	0.948	1.798		

180-37906-C-2-A

11/4/2014 4:36:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	63.189%	10.870	41.370	39.670	0.000	1616.000	49140.000	49870.000
2	16:37:15	62.861%	10.420	38.960	37.860	0.000	1618.000	49340.000	49430.000
3	16:37:34	62.937%	10.160	38.830	37.540	0.000	1599.000	48980.000	49290.000
X		62.996%	10.480	39.720	38.360	0.000	1611.000	49150.000	49530.000
σ		0.172%	0.362	1.430	1.150	0.000	10.200	178.300	307.100
%RSD		0.273	3.451	3.599	2.999	0.000	0.633	0.363	0.620
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	97790.000	3645.000	0.000	12000.000	120500.000	121100.000	55.283%	2720.000
2	16:37:15	97440.000	3596.000	0.000	12020.000	121200.000	121000.000	55.314%	2671.000
3	16:37:34	95820.000	3566.000	0.000	11950.000	122200.000	121100.000	54.563%	2701.000
X		97020.000	3603.000	0.000	11990.000	121300.000	121100.000	55.053%	2697.000
σ		1049.000	39.820	0.000	38.240	867.800	37.470	0.425%	24.550
%RSD		1.081	1.105	0.000	0.319	0.715	0.031	0.772	0.910
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	409.500	654.100	5068.000	307700.000	319800.000	205.600	467.000	865.400
2	16:37:15	399.600	644.600	5028.000	304400.000	318000.000	204.100	468.900	874.500
3	16:37:34	405.400	649.300	5076.000	305900.000	319800.000	204.000	471.500	875.000
X		404.900	649.300	5057.000	306000.000	319200.000	204.600	469.100	871.600
σ		4.995	4.751	26.200	1654.000	1038.000	0.905	2.215	5.374
%RSD		1.234	0.732	0.518	0.540	0.325	0.443	0.472	0.617
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	874.900	6035.000	6044.000	57.580	5.442	9.821	0.000	394.400
2	16:37:15	882.000	6006.000	6108.000	55.940	5.819	9.199	0.000	397.700
3	16:37:34	882.500	6120.000	6175.000	58.240	5.799	9.634	0.000	403.100
X		879.800	6054.000	6109.000	57.250	5.686	9.551	0.000	398.400
σ		4.257	58.890	65.510	1.185	0.212	0.319	0.000	4.359
%RSD		0.484	0.973	1.072	2.070	3.732	3.342	0.000	1.094
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	0.000	48.470	48.960	55.468%	439.200	438.700	18.110	17.010
2	16:37:15	0.000	49.850	50.430	56.090%	440.800	441.600	17.910	16.780
3	16:37:34	0.000	49.320	51.050	56.074%	445.600	437.600	17.700	16.840
X		0.000	49.210	50.140	55.877%	441.900	439.300	17.900	16.880
σ		0.000	0.694	1.073	0.355%	3.310	2.093	0.204	0.120
%RSD		0.000	1.409	2.140	0.635	0.749	0.476	1.138	0.709
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:56	65.457%	133.100	7.690	7.445	1332.000	1335.000	82.902%	84.508%
2	16:37:15	66.456%	133.400	7.630	7.405	1326.000	1333.000	86.405%	86.908%
3	16:37:34	67.278%	134.000	7.774	7.429	1337.000	1335.000	88.001%	88.573%
X		66.397%	133.500	7.698	7.427	1332.000	1335.000	85.769%	86.663%
σ		0.912%	0.458	0.072	0.020	5.398	1.034	2.608%	2.044%
%RSD		1.373	0.343	0.941	0.272	0.405	0.077	3.041	2.358
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:36:56	2.593	2.569	1584.000	1459.000	1526.000	60.090%		
2	16:37:15	2.680	2.622	1592.000	1475.000	1536.000	60.999%		
3	16:37:34	2.580	2.656	1605.000	1495.000	1550.000	61.602%		
X		2.618	2.616	1594.000	1476.000	1537.000	60.897%		
σ		0.054	0.044	10.740	18.040	11.790	0.761%		
%RSD		2.077	1.685	0.674	1.222	0.767	1.249		

180-37906-C-3-A

11/4/2014 4:40:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	63.341%	11.310	45.320	44.190	0.000	1517.000	45900.000	46270.000
2	16:40:46	61.472%	10.160	43.930	42.880	0.000	1536.000	46260.000	46480.000
3	16:41:05	61.094%	10.360	43.500	42.220	0.000	1543.000	46130.000	46150.000
X		61.969%	10.610	44.250	43.100	0.000	1532.000	46100.000	46300.000
σ		1.203%	0.612	0.949	1.003	0.000	13.700	182.000	166.700
%RSD		1.941	5.769	2.145	2.326	0.000	0.894	0.395	0.360
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	101800.000	4594.000	0.000	12700.000	126100.000	127300.000	54.819%	2799.000
2	16:40:46	102200.000	4557.000	0.000	12740.000	128600.000	129100.000	54.229%	2817.000
3	16:41:05	100600.000	4469.000	0.000	12570.000	128800.000	127500.000	53.396%	2807.000
X		101500.000	4540.000	0.000	12670.000	127800.000	128000.000	54.148%	2808.000
σ		846.600	64.300	0.000	88.860	1477.000	951.700	0.715%	8.857
%RSD		0.834	1.416	0.000	0.702	1.155	0.744	1.320	0.316
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	400.100	925.900	4813.000	310300.000	324900.000	243.400	569.200	1355.000
2	16:40:46	399.500	935.200	4862.000	312200.000	325400.000	240.900	566.600	1352.000
3	16:41:05	397.600	930.400	4885.000	312200.000	327800.000	244.100	574.400	1358.000
X		399.100	930.500	4854.000	311600.000	326100.000	242.800	570.100	1355.000
σ		1.285	4.619	36.740	1129.000	1552.000	1.722	3.950	3.306
%RSD		0.322	0.497	0.757	0.362	0.476	0.709	0.693	0.244
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	1361.000	8201.000	8290.000	66.080	6.268	10.650	0.000	463.500
2	16:40:46	1360.000	8177.000	8319.000	67.050	6.428	10.120	0.000	467.100
3	16:41:05	1371.000	8221.000	8363.000	67.200	6.752	10.370	0.000	470.800
X		1364.000	8200.000	8324.000	66.780	6.483	10.380	0.000	467.200
σ		6.469	22.170	36.710	0.606	0.247	0.265	0.000	3.651
%RSD		0.474	0.270	0.441	0.907	3.804	2.556	0.000	0.781
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	0.000	68.050	68.970	55.162%	119.300	117.800	26.730	26.210
2	16:40:46	0.000	68.750	69.750	55.658%	117.700	116.700	26.690	26.320
3	16:41:05	0.000	69.920	70.360	55.961%	119.100	117.500	27.040	26.360
X		0.000	68.910	69.690	55.594%	118.700	117.300	26.820	26.300
σ		0.000	0.945	0.697	0.404%	0.876	0.554	0.195	0.075
%RSD		0.000	1.371	1.000	0.726	0.738	0.473	0.726	0.287
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:27	64.712%	104.300	9.229	9.101	1740.000	1739.000	82.471%	84.624%
2	16:40:46	67.864%	101.700	9.096	8.931	1692.000	1699.000	87.460%	87.949%
3	16:41:05	68.106%	102.800	9.277	9.046	1721.000	1712.000	87.339%	89.163%
X		66.894%	102.900	9.201	9.026	1718.000	1717.000	85.757%	87.245%
σ		1.893%	1.300	0.094	0.087	24.370	20.370	2.846%	2.350%
%RSD		2.831	1.264	1.022	0.965	1.419	1.186	3.319	2.693
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:40:27	3.214	3.242	5606.000	5017.000	5313.000	60.058%		
2	16:40:46	3.331	3.310	5639.000	5031.000	5330.000	61.555%		
3	16:41:05	3.297	3.292	5620.000	5058.000	5332.000	62.170%		
X		3.281	3.281	5622.000	5035.000	5325.000	61.261%		
σ		0.060	0.035	16.870	20.650	10.660	1.086%		
%RSD		1.829	1.082	0.300	0.410	0.200	1.773		

CCV 1369903 11/4/2014 4:43:47 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	67.893%	97.580	99.650	102.100	0.000	50610.000	49070.000	49190.000
2	16:44:06	66.560%	97.770	98.690	100.100	0.000	51110.000	49950.000	49730.000
3	16:44:25	67.306%	97.600	93.650	97.320	0.000	50640.000	49400.000	49090.000
x		67.253%	97.649%	97.329%	99.834%	0.000	101.572%	98.949%	98.672%
σ		0.668%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.993	0.106	3.308	2.390	0.000	0.550	0.896	0.698
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	507.000	4699.000	0.000	50440.000	50870.000	50510.000	70.612%	101.600
2	16:44:06	515.100	4736.000	0.000	51220.000	51620.000	51210.000	69.124%	103.000
3	16:44:25	505.400	4613.000	0.000	50550.000	51130.000	51020.000	68.335%	103.900
x		101.830%	93.651%	0.000	101.473%	102.412%	101.830%	69.357%	102.824%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.156%	n/a
%RSD		1.021	1.339	0.000	0.825	0.746	0.716	1.667	1.122
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	97.030	97.860	500.400	25000.000	24960.000	97.870	97.470	98.810
2	16:44:06	97.270	98.490	507.200	25100.000	24990.000	98.970	98.490	99.390
3	16:44:25	97.020	97.640	507.300	25100.000	25160.000	98.570	98.630	98.480
x		97.105%	97.994%	100.989%	100.272%	100.148%	98.471%	98.196%	98.896%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.148	0.451	0.788	0.229	0.430	0.562	0.645	0.464
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	99.400	106.800	107.300	101.300	102.700	103.000	0.000	100.100
2	16:44:06	98.550	106.700	107.100	99.320	102.200	101.600	0.000	99.750
3	16:44:25	98.940	107.100	109.300	101.000	103.100	103.000	0.000	99.730
x		98.963%	106.865%	107.899%	100.535%	102.658%	102.567%	0.000	99.852%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.434	0.190	1.138	1.057	0.465	0.779	0.000	0.199
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	75.668%	93.040	96.360	70.469%	100.800	100.800	102.100	101.900
2	16:44:06	76.828%	98.470	101.800	70.544%	101.900	101.500	105.500	101.600
3	16:44:25	77.835%	102.900	105.600	70.765%	101.700	100.900	102.300	100.400
x		76.777%	98.144%	101.224%	70.593%	101.457%	101.063%	103.332%	101.294%
σ		1.084%	n/a	n/a	0.154%	n/a	n/a	n/a	n/a
%RSD		1.412	5.043	4.567	0.218	0.557	0.349	1.842	0.791
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:47	78.196%	99.630	99.120	97.920	98.260	98.110	85.714%	86.017%
2	16:44:06	80.444%	99.900	101.000	101.000	99.800	98.500	88.396%	88.594%
3	16:44:25	81.353%	100.800	101.900	101.200	98.190	98.500	88.907%	90.507%
x		79.997%	100.122%	100.663%	100.028%	98.749%	98.367%	87.672%	88.373%
σ		1.625%	n/a	n/a	n/a	n/a	n/a	1.715%	2.253%
%RSD		2.032	0.632	1.414	1.828	0.921	0.229	1.956	2.550
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:43:47	104.200	105.500	104.400	105.200	105.000	78.255%		
2	16:44:06	107.300	108.100	108.600	109.200	109.300	78.682%		
3	16:44:25	109.000	109.400	109.100	110.300	110.100	79.424%		
x		106.814%	107.675%	107.370%	108.225%	108.134%	78.787%		
σ		n/a	n/a	n/a	n/a	n/a	0.592%		
%RSD		2.290	1.885	2.418	2.503	2.498	0.751		

CCB4 11/4/2014 4:49:42 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	89.614%	0.014	5.088	5.470	0.000	17.300	1.663	1.495
2	16:50:21	91.011%	-0.014	3.365	3.927	0.000	17.660	1.901	1.448
3	16:50:40	89.248%	-0.005	3.645	3.559	0.000	18.290	1.107	1.544
X		89.958%	-0.002	4.033	4.318	0.000	17.750	1.557	1.495
σ		0.930%	0.014	0.925	1.014	0.000	0.502	0.408	0.048
%RSD		1.034	945.200	22.930	23.480	0.000	2.831	26.190	3.206
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	4.832	5.266	0.000	-7.292	35.880	28.780	92.372%	-0.008
2	16:50:21	4.597	4.660	0.000	-8.244	35.180	29.850	91.106%	0.055
3	16:50:40	4.693	4.589	0.000	-7.673	34.260	29.820	90.489%	0.031
X		4.707	4.839	0.000	-7.737	35.110	29.480	91.322%	0.026
σ		0.118	0.372	0.000	0.479	0.809	0.609	0.960%	0.032
%RSD		2.504	7.692	0.000	6.193	2.304	2.064	1.051	121.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	-0.001	0.066	0.051	3.505	9.013	0.001	0.089	-0.074
2	16:50:21	0.033	0.030	0.075	1.862	6.903	0.000	0.122	-0.073
3	16:50:40	0.028	0.031	0.058	-0.224	5.561	-0.003	0.074	-0.087
X		0.020	0.042	0.061	1.714	7.159	-0.001	0.095	-0.078
σ		0.018	0.021	0.012	1.869	1.740	0.002	0.025	0.008
%RSD		91.070	48.790	20.260	109.000	24.300	369.900	25.990	10.110
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	-0.081	1.746	1.815	-0.592	-0.238	-2.240	0.000	0.014
2	16:50:21	-0.101	1.937	1.782	-0.600	-0.176	-2.145	0.000	0.020
3	16:50:40	-0.063	1.732	1.834	-0.111	-0.158	-0.408	0.000	0.021
X		-0.081	1.805	1.810	-0.434	-0.191	-1.598	0.000	0.018
σ		0.019	0.114	0.026	0.280	0.042	1.031	0.000	0.004
%RSD		23.290	6.327	1.457	64.420	21.800	64.550	0.000	19.580
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	87.411%	0.196	0.147	82.671%	-0.296	-0.291	0.003	-0.012
2	16:50:21	88.679%	0.176	0.174	83.496%	-0.291	-0.271	0.021	0.002
3	16:50:40	88.751%	0.157	0.196	83.480%	-0.301	-0.265	-0.022	-0.014
X		88.281%	0.176	0.173	83.216%	-0.296	-0.276	0.000	-0.008
σ		0.754%	0.020	0.024	0.472%	0.005	0.014	0.021	0.009
%RSD		0.854	11.250	14.160	0.567	1.555	4.908	4724.000	111.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:50:02	86.195%	-0.461	0.001	0.015	0.038	0.025	89.807%	90.148%
2	16:50:21	88.815%	-0.473	0.005	0.016	0.030	0.044	93.616%	93.293%
3	16:50:40	89.887%	-0.529	0.005	0.011	0.024	0.026	94.520%	94.803%
X		88.299%	-0.488	0.004	0.014	0.031	0.032	92.648%	92.748%
σ		1.899%	0.036	0.002	0.003	0.007	0.011	2.501%	2.375%
%RSD		2.151	7.456	64.550	20.780	22.360	33.690	2.700	2.561
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:50:02	0.002	-0.000	0.113	0.111	0.112	95.158%		
2	16:50:21	0.001	0.004	0.145	0.107	0.124	96.125%		
3	16:50:40	0.001	0.004	0.117	0.113	0.113	97.236%		
X		0.001	0.003	0.125	0.111	0.117	96.173%		
σ		0.001	0.002	0.018	0.003	0.007	1.040%		
%RSD		60.880	87.450	14.030	2.970	5.839	1.081		

180-37906-C-4-A

11/4/2014 4:53:16 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	67.224%	17.230	37.160	37.090	0.000	1024.000	25240.000	25330.000
2	16:53:54	67.546%	18.130	39.960	36.420	0.000	1026.000	25450.000	25490.000
3	16:54:13	68.723%	17.080	37.750	36.170	0.000	1006.000	24930.000	25180.000
X		67.831%	17.480	38.290	36.560	0.000	1019.000	25210.000	25340.000
σ		0.789%	0.569	1.477	0.472	0.000	10.920	260.700	154.800
%RSD		1.164	3.255	3.858	1.292	0.000	1.072	1.034	0.611
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	196900.000	3491.000	0.000	14450.000	37390.000	36930.000	65.408%	2145.000
2	16:53:54	196100.000	3448.000	0.000	14420.000	36830.000	36680.000	65.746%	2156.000
3	16:54:13	193900.000	3411.000	0.000	14510.000	37800.000	37030.000	65.448%	2160.000
X		195600.000	3450.000	0.000	14460.000	37340.000	36880.000	65.534%	2154.000
σ		1567.000	40.030	0.000	48.100	488.500	180.400	0.185%	7.490
%RSD		0.801	1.160	0.000	0.333	1.308	0.489	0.282	0.348
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	589.100	413.100	4023.000	350600.000	370800.000	188.800	296.300	1145.000
2	16:53:54	587.700	413.700	4061.000	351000.000	371200.000	191.100	299.100	1150.000
3	16:54:13	593.000	417.000	4073.000	351300.000	374800.000	191.800	296.700	1156.000
X		589.900	414.600	4053.000	351000.000	372300.000	190.600	297.400	1151.000
σ		2.772	2.104	26.450	389.700	2208.000	1.573	1.510	5.252
%RSD		0.470	0.507	0.653	0.111	0.593	0.825	0.508	0.457
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	1160.000	6815.000	6972.000	120.800	14.010	18.510	0.000	353.800
2	16:53:54	1170.000	6845.000	7007.000	121.500	14.190	20.580	0.000	358.600
3	16:54:13	1172.000	6886.000	7047.000	122.800	14.340	21.610	0.000	362.100
X		1167.000	6849.000	7009.000	121.700	14.180	20.240	0.000	358.100
σ		6.091	36.070	37.740	1.020	0.165	1.578	0.000	4.183
%RSD		0.522	0.527	0.538	0.838	1.161	7.797	0.000	1.168
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	0.000	17.300	21.180	58.356%	26.940	27.240	20.210	18.720
2	16:53:54	0.000	21.110	21.410	58.970%	27.470	27.220	20.760	18.390
3	16:54:13	0.000	21.230	21.690	59.909%	27.610	27.190	19.400	18.100
X		0.000	19.880	21.430	59.079%	27.340	27.220	20.120	18.410
σ		0.000	2.233	0.253	0.782%	0.356	0.023	0.681	0.312
%RSD		0.000	11.230	1.179	1.324	1.301	0.085	3.386	1.696
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:35	68.269%	307.800	16.000	15.750	2615.000	2656.000	91.930%	92.376%
2	16:53:54	69.902%	312.200	16.120	15.770	2660.000	2674.000	94.638%	94.982%
3	16:54:13	72.423%	306.000	15.450	15.480	2642.000	2644.000	97.311%	97.518%
X		70.198%	308.700	15.860	15.670	2639.000	2658.000	94.627%	94.958%
σ		2.093%	3.166	0.356	0.163	23.050	15.280	2.690%	2.571%
%RSD		2.982	1.026	2.242	1.039	0.874	0.575	2.843	2.708
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:53:35	5.419	5.492	4391.000	4151.000	4271.000	63.839%		
2	16:53:54	5.428	5.490	4390.000	4127.000	4272.000	65.354%		
3	16:54:13	5.438	5.484	4379.000	4090.000	4248.000	67.038%		
X		5.429	5.489	4387.000	4123.000	4264.000	65.410%		
σ		0.010	0.004	6.756	30.650	13.390	1.600%		
%RSD		0.176	0.078	0.154	0.744	0.314	2.447		

180-37906-C-5-A

11/4/2014 4:56:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	75.433%	14.150	29.110	27.440	0.000	515.500	19010.000	19160.000
2	16:57:26	74.932%	14.570	30.840	26.410	0.000	507.400	18820.000	18960.000
3	16:57:45	74.200%	14.580	27.370	25.540	0.000	506.600	18620.000	18820.000
X		74.855%	14.430	29.100	26.460	0.000	509.800	18820.000	18980.000
σ		0.620%	0.245	1.734	0.952	0.000	4.940	198.700	170.600
%RSD		0.828	1.700	5.959	3.597	0.000	0.969	1.056	0.899
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	113400.000	3222.000	0.000	10190.000	22860.000	22220.000	66.207%	1191.000
2	16:57:26	112600.000	3145.000	0.000	10180.000	22690.000	22160.000	66.671%	1171.000
3	16:57:45	111800.000	3101.000	0.000	10150.000	22400.000	22120.000	65.988%	1171.000
X		112600.000	3156.000	0.000	10170.000	22650.000	22170.000	66.289%	1178.000
σ		802.900	61.310	0.000	20.270	233.000	49.360	0.349%	11.710
%RSD		0.713	1.943	0.000	0.199	1.029	0.223	0.526	0.994
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	231.100	227.700	9894.000	284300.000	297800.000	212.200	270.700	152.600
2	16:57:26	230.700	226.500	9837.000	284300.000	298200.000	212.600	268.500	152.100
3	16:57:45	229.700	224.100	9882.000	284600.000	298600.000	214.100	271.600	152.800
X		230.500	226.100	9871.000	284400.000	298200.000	213.000	270.300	152.500
σ		0.734	1.825	30.280	185.800	424.200	1.011	1.599	0.382
%RSD		0.318	0.807	0.307	0.065	0.142	0.475	0.592	0.250
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	154.300	708.600	724.800	18.280	4.613	8.430	0.000	201.400
2	16:57:26	154.300	703.400	721.100	17.890	4.778	8.748	0.000	203.500
3	16:57:45	156.100	710.600	724.400	18.360	4.883	8.463	0.000	203.800
X		154.900	707.600	723.400	18.180	4.758	8.547	0.000	202.900
σ		1.044	3.725	2.011	0.251	0.136	0.175	0.000	1.326
%RSD		0.674	0.526	0.278	1.378	2.867	2.047	0.000	0.653
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	0.000	4.800	4.859	63.615%	0.477	0.409	4.206	3.808
2	16:57:26	0.000	4.628	4.799	63.715%	0.514	0.429	4.297	3.822
3	16:57:45	0.000	4.571	4.664	64.019%	0.472	0.397	4.222	3.801
X		0.000	4.666	4.774	63.783%	0.487	0.412	4.242	3.810
σ		0.000	0.119	0.100	0.210%	0.023	0.016	0.049	0.011
%RSD		0.000	2.557	2.096	0.330	4.697	3.999	1.152	0.277
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:57:07	73.026%	7.084	0.831	0.841	1496.000	1495.000	95.911%	95.725%
2	16:57:26	74.870%	7.161	0.758	0.776	1504.000	1494.000	98.408%	99.346%
3	16:57:45	74.933%	7.326	0.692	0.790	1496.000	1484.000	100.147%	100.655%
X		74.277%	7.190	0.760	0.802	1498.000	1491.000	98.155%	98.575%
σ		1.083%	0.124	0.069	0.034	4.662	6.119	2.129%	2.554%
%RSD		1.459	1.722	9.137	4.259	0.311	0.410	2.169	2.591
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:57:07	1.928	1.982	157.200	146.000	153.100	64.027%		
2	16:57:26	1.923	1.994	157.200	146.000	153.000	65.935%		
3	16:57:45	1.933	1.971	155.800	145.100	151.300	67.563%		
X		1.928	1.982	156.700	145.700	152.500	65.842%		
σ		0.005	0.011	0.832	0.518	1.047	1.770%		
%RSD		0.259	0.576	0.531	0.356	0.687	2.688		



180-37906-C-6-A

11/4/2014 5:00:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	69.962%	15.280	41.130	38.560	0.000	1088.000	20480.000	20550.000
2	17:00:57	71.545%	16.400	36.920	35.950	0.000	1077.000	20300.000	20480.000
3	17:01:17	69.451%	15.930	37.750	35.170	0.000	1088.000	20630.000	20410.000
X		70.319%	15.870	38.600	36.560	0.000	1084.000	20470.000	20480.000
σ		1.092%	0.563	2.230	1.773	0.000	6.161	161.800	69.110
%RSD		1.553	3.545	5.777	4.850	0.000	0.568	0.791	0.338
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	164800.000	2982.000	0.000	12360.000	48150.000	48090.000	65.535%	1936.000
2	17:00:57	161900.000	2936.000	0.000	12210.000	48170.000	47900.000	65.335%	1935.000
3	17:01:17	162800.000	2907.000	0.000	12290.000	49020.000	48320.000	64.594%	1964.000
X		163200.000	2942.000	0.000	12290.000	48450.000	48100.000	65.155%	1945.000
σ		1487.000	38.110	0.000	73.140	493.900	209.300	0.496%	16.460
%RSD		0.911	1.296	0.000	0.595	1.019	0.435	0.761	0.846
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	571.100	408.700	3965.000	345700.000	365100.000	178.300	273.600	1333.000
2	17:00:57	566.700	407.600	3970.000	345900.000	365900.000	180.200	278.700	1323.000
3	17:01:17	571.900	410.800	4000.000	346700.000	366900.000	180.300	276.400	1327.000
X		569.900	409.000	3978.000	346100.000	366000.000	179.600	276.200	1328.000
σ		2.789	1.645	18.950	508.500	871.800	1.163	2.552	4.986
%RSD		0.489	0.402	0.476	0.147	0.238	0.648	0.924	0.376
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	1417.000	6850.000	6949.000	184.000	14.460	18.840	0.000	418.900
2	17:00:57	1428.000	6873.000	7016.000	186.200	14.770	19.590	0.000	425.200
3	17:01:17	1429.000	6895.000	7016.000	184.400	15.070	20.680	0.000	429.100
X		1425.000	6873.000	6994.000	184.900	14.770	19.700	0.000	424.400
σ		6.519	22.260	38.900	1.180	0.301	0.925	0.000	5.140
%RSD		0.458	0.324	0.556	0.638	2.036	4.698	0.000	1.211
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	0.000	20.190	20.170	61.235%	27.460	27.090	28.360	27.080
2	17:00:57	0.000	20.160	20.510	61.358%	27.900	27.620	27.900	27.190
3	17:01:17	0.000	12.430	20.640	62.108%	28.140	27.600	27.680	26.590
X		0.000	17.590	20.440	61.567%	27.830	27.430	27.980	26.950
σ		0.000	4.468	0.240	0.473%	0.343	0.299	0.343	0.320
%RSD		0.000	25.400	1.173	0.767	1.232	1.090	1.224	1.187
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:38	71.775%	297.200	15.880	15.840	2878.000	2928.000	92.351%	92.738%
2	17:00:57	72.989%	303.800	16.260	16.060	2903.000	2907.000	94.452%	94.916%
3	17:01:17	73.217%	304.600	16.440	16.130	2891.000	2859.000	97.902%	97.601%
X		72.660%	301.900	16.200	16.010	2890.000	2898.000	94.902%	95.085%
σ		0.775%	4.095	0.286	0.153	12.530	35.420	2.803%	2.436%
%RSD		1.067	1.357	1.764	0.955	0.434	1.222	2.953	2.562
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:00:38	4.812	4.858	5688.000	5344.000	5548.000	66.180%		
2	17:00:57	4.745	4.879	5696.000	5374.000	5538.000	67.969%		
3	17:01:17	4.939	4.789	5638.000	5307.000	5482.000	69.541%		
X		4.832	4.842	5674.000	5342.000	5523.000	67.897%		
σ		0.098	0.047	31.170	33.610	35.500	1.681%		
%RSD		2.031	0.972	0.549	0.629	0.643	2.476		

180-37906-C-7-A

11/4/2014 5:03:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	78.010%	14.890	30.660	30.490	0.000	558.500	22250.000	22360.000
2	17:04:29	77.209%	15.910	30.440	28.320	0.000	559.300	22050.000	22190.000
3	17:04:48	77.063%	15.580	28.580	26.810	0.000	554.700	22100.000	22220.000
X		77.427%	15.460	29.890	28.540	0.000	557.500	22130.000	22260.000
σ		0.510%	0.523	1.144	1.846	0.000	2.451	103.900	92.040
%RSD		0.658	3.382	3.826	6.467	0.000	0.440	0.470	0.413
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	127000.000	3468.000	0.000	11230.000	13690.000	13290.000	70.527%	1386.000
2	17:04:29	124600.000	3396.000	0.000	11130.000	13810.000	13280.000	70.811%	1394.000
3	17:04:48	123900.000	3390.000	0.000	11180.000	13700.000	13430.000	69.350%	1390.000
X		125200.000	3418.000	0.000	11180.000	13730.000	13330.000	70.229%	1390.000
σ		1632.000	43.580	0.000	50.010	63.760	83.380	0.774%	4.095
%RSD		1.303	1.275	0.000	0.447	0.464	0.625	1.102	0.295
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	287.200	249.900	3130.000	202700.000	209500.000	297.500	347.000	176.500
2	17:04:29	283.600	250.800	3134.000	202400.000	209200.000	294.500	345.800	175.500
3	17:04:48	287.100	252.700	3154.000	202800.000	210600.000	297.300	348.000	177.700
X		286.000	251.100	3140.000	202600.000	209800.000	296.400	346.900	176.600
σ		2.036	1.435	12.800	231.500	714.100	1.652	1.090	1.071
%RSD		0.712	0.572	0.408	0.114	0.340	0.557	0.314	0.607
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	179.300	782.600	799.500	32.340	5.771	11.050	0.000	153.100
2	17:04:29	178.200	780.800	802.700	31.940	5.725	10.060	0.000	155.200
3	17:04:48	176.200	790.200	802.900	32.820	5.714	10.360	0.000	155.800
X		177.900	784.500	801.700	32.370	5.737	10.490	0.000	154.700
σ		1.553	4.979	1.910	0.443	0.031	0.511	0.000	1.421
%RSD		0.873	0.635	0.238	1.370	0.532	4.872	0.000	0.918
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	0.000	7.442	7.606	66.621%	0.737	0.620	5.417	4.755
2	17:04:29	0.000	5.334	7.487	66.779%	0.715	0.612	5.163	4.673
3	17:04:48	0.000	7.751	7.618	67.456%	0.719	0.674	5.039	4.581
X		0.000	6.842	7.571	66.952%	0.724	0.635	5.206	4.670
σ		0.000	1.315	0.073	0.443%	0.012	0.034	0.193	0.087
%RSD		0.000	19.220	0.963	0.662	1.608	5.291	3.702	1.860
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:04:10	76.366%	8.250	1.062	0.969	1475.000	1464.000	102.181%	101.514%
2	17:04:29	78.780%	8.194	1.025	0.903	1475.000	1448.000	104.448%	104.923%
3	17:04:48	79.241%	8.083	1.032	1.020	1464.000	1464.000	106.747%	106.876%
X		78.129%	8.176	1.040	0.964	1472.000	1459.000	104.459%	104.438%
σ		1.544%	0.085	0.020	0.059	6.518	9.172	2.283%	2.714%
%RSD		1.977	1.038	1.882	6.079	0.443	0.629	2.185	2.598
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:04:10	2.207	2.178	207.500	192.600	201.500	68.503%		
2	17:04:29	2.150	2.219	210.400	196.000	204.200	69.663%		
3	17:04:48	2.206	2.245	210.000	195.000	203.500	70.632%		
X		2.188	2.214	209.300	194.500	203.100	69.599%		
σ		0.033	0.034	1.558	1.737	1.379	1.066%		
%RSD		1.505	1.523	0.744	0.893	0.679	1.532		

180-37720-B-1-B

11/4/2014 5:07:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	85.282%	2.805	18.780	19.220	0.000	377.000	6722.000	6780.000
2	17:08:02	85.146%	3.015	16.530	17.350	0.000	368.300	6643.000	6690.000
3	17:08:21	82.910%	2.967	16.620	17.070	0.000	373.000	6657.000	6654.000
X		84.446%	2.929	17.310	17.880	0.000	372.800	6674.000	6708.000
σ		1.332%	0.110	1.274	1.169	0.000	4.343	42.330	64.760
%RSD		1.578	3.762	7.357	6.536	0.000	1.165	0.634	0.966
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	21740.000	1933.000	0.000	3299.000	1690.000	1616.000	70.871%	541.800
2	17:08:02	21450.000	1935.000	0.000	3305.000	1763.000	1604.000	70.028%	538.300
3	17:08:21	21250.000	1949.000	0.000	3305.000	1660.000	1623.000	69.517%	532.700
X		21480.000	1939.000	0.000	3303.000	1704.000	1615.000	70.139%	537.600
σ		245.300	8.869	0.000	3.373	52.650	9.979	0.684%	4.598
%RSD		1.142	0.457	0.000	0.102	3.089	0.618	0.975	0.855
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	69.840	146.300	739.400	73520.000	74350.000	27.190	50.980	40.660
2	17:08:02	70.040	146.300	741.500	73140.000	73960.000	27.260	49.860	40.920
3	17:08:21	67.830	146.100	745.500	73530.000	74020.000	27.300	50.190	40.580
X		69.240	146.200	742.100	73390.000	74110.000	27.250	50.340	40.720
σ		1.225	0.150	3.076	223.800	213.600	0.058	0.575	0.180
%RSD		1.769	0.103	0.415	0.305	0.288	0.213	1.142	0.441
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	42.270	234.300	240.700	8.333	0.130	-0.035	0.000	22.930
2	17:08:02	41.440	237.200	238.300	7.591	0.052	-1.012	0.000	22.690
3	17:08:21	40.610	236.100	239.500	9.016	0.141	0.634	0.000	22.990
X		41.440	235.800	239.500	8.313	0.108	-0.138	0.000	22.870
σ		0.830	1.463	1.172	0.713	0.049	0.828	0.000	0.160
%RSD		2.004	0.621	0.489	8.571	45.100	601.000	0.000	0.699
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	0.000	2.820	2.998	73.894%	-0.205	-0.179	0.692	0.620
2	17:08:02	0.000	2.820	2.963	73.110%	-0.171	-0.127	0.613	0.564
3	17:08:21	0.000	2.980	3.048	72.888%	-0.159	-0.150	0.607	0.554
X		0.000	2.873	3.003	73.298%	-0.179	-0.152	0.638	0.580
σ		0.000	0.092	0.043	0.529%	0.024	0.026	0.047	0.036
%RSD		0.000	3.212	1.436	0.721	13.440	17.200	7.437	6.129
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:07:42	81.837%	2.191	0.698	0.741	124.200	127.600	92.229%	92.822%
2	17:08:02	81.934%	2.255	0.707	0.642	130.300	127.900	93.901%	94.211%
3	17:08:21	82.805%	2.196	0.640	0.656	128.300	127.600	94.989%	96.472%
X		82.192%	2.214	0.681	0.679	127.600	127.700	93.706%	94.502%
σ		0.533%	0.035	0.036	0.054	3.110	0.167	1.390%	1.842%
%RSD		0.648	1.603	5.347	7.921	2.437	0.131	1.484	1.949
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:07:42	0.237	0.206	35.660	33.560	34.650	77.050%		
2	17:08:02	0.214	0.223	36.720	33.760	35.190	77.567%		
3	17:08:21	0.209	0.204	36.610	33.390	35.240	78.949%		
X		0.220	0.211	36.330	33.570	35.020	77.855%		
σ		0.015	0.010	0.587	0.185	0.324	0.982%		
%RSD		6.844	4.941	1.615	0.551	0.925	1.261		

180-37750-B-1-E

11/4/2014 5:10:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	79.967%	1.123	26.550	27.070	0.000	15660.000	4645.000	4681.000
2	17:11:35	79.075%	1.038	24.940	24.880	0.000	15650.000	4704.000	4719.000
3	17:11:54	78.193%	1.206	24.270	24.660	0.000	15530.000	4626.000	4656.000
X		79.079%	1.122	25.250	25.530	0.000	15610.000	4659.000	4686.000
σ		0.887%	0.084	1.173	1.331	0.000	73.710	40.690	31.570
%RSD		1.122	7.496	4.644	5.213	0.000	0.472	0.874	0.674
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	11910.000	2250.000	0.000	2156.000	5182.000	5020.000	65.518%	605.600
2	17:11:35	11870.000	2228.000	0.000	2165.000	5047.000	5058.000	64.494%	603.200
3	17:11:54	11830.000	2187.000	0.000	2151.000	5229.000	5076.000	63.092%	605.900
X		11870.000	2222.000	0.000	2157.000	5153.000	5051.000	64.368%	604.900
σ		40.050	31.670	0.000	7.024	94.620	28.700	1.218%	1.513
%RSD		0.337	1.426	0.000	0.326	1.836	0.568	1.892	0.250
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	118.300	629.800	512.300	75910.000	76940.000	19.190	52.010	119.900
2	17:11:35	118.300	626.300	506.600	75020.000	76000.000	19.050	50.850	119.100
3	17:11:54	117.100	629.000	510.500	76080.000	76990.000	19.240	51.090	120.000
X		117.900	628.400	509.800	75670.000	76640.000	19.160	51.320	119.700
σ		0.699	1.848	2.944	571.700	560.700	0.095	0.612	0.471
%RSD		0.593	0.294	0.578	0.755	0.732	0.498	1.193	0.393
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	119.700	1845.000	1850.000	18.320	1.656	2.024	0.000	64.700
2	17:11:35	119.200	1846.000	1870.000	18.080	1.941	2.668	0.000	65.720
3	17:11:54	120.500	1845.000	1879.000	19.050	1.916	2.354	0.000	66.640
X		119.800	1845.000	1866.000	18.480	1.838	2.349	0.000	65.690
σ		0.628	0.521	14.900	0.510	0.158	0.322	0.000	0.967
%RSD		0.524	0.028	0.798	2.760	8.597	13.710	0.000	1.472
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	0.000	4.599	4.835	68.600%	0.617	0.671	12.900	11.770
2	17:11:35	0.000	4.813	4.761	68.880%	0.657	0.728	12.820	12.020
3	17:11:54	0.000	4.712	4.769	68.022%	0.671	0.651	13.050	12.190
X		0.000	4.708	4.788	68.501%	0.648	0.683	12.920	12.000
σ		0.000	0.107	0.040	0.438%	0.028	0.040	0.120	0.210
%RSD		0.000	2.277	0.846	0.639	4.363	5.826	0.932	1.751
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:11:15	77.466%	318.900	2.302	2.337	65.270	66.010	87.443%	88.818%
2	17:11:35	79.172%	316.300	2.334	2.380	64.800	64.610	90.373%	91.530%
3	17:11:54	79.318%	320.200	2.309	2.310	64.870	65.530	90.350%	92.130%
X		78.652%	318.500	2.315	2.343	64.980	65.380	89.389%	90.826%
σ		1.030%	1.980	0.017	0.035	0.250	0.711	1.685%	1.765%
%RSD		1.309	0.622	0.735	1.506	0.385	1.088	1.885	1.943
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:11:15	0.632	0.624	182.200	168.300	175.300	74.668%		
2	17:11:35	0.634	0.650	184.900	173.100	177.900	75.035%		
3	17:11:54	0.652	0.652	183.700	172.100	178.200	76.246%		
X		0.639	0.642	183.600	171.200	177.200	75.316%		
σ		0.011	0.016	1.355	2.569	1.616	0.826%		
%RSD		1.682	2.447	0.738	1.501	0.912	1.097		

180-37750-B-2-E

11/4/2014 5:14:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	66.305%	5.218	88.660	85.670	0.000	37520.000	24780.000	25070.000
2	17:15:07	65.019%	4.992	87.480	84.680	0.000	37990.000	25110.000	25270.000
3	17:15:26	64.621%	5.036	85.530	80.860	0.000	37250.000	24850.000	25010.000
X		65.315%	5.082	87.220	83.740	0.000	37590.000	24910.000	25110.000
σ		0.880%	0.120	1.580	2.544	0.000	374.300	178.300	135.900
%RSD		1.347	2.357	1.811	3.039	0.000	0.996	0.716	0.541
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	71570.000	3954.000	0.000	10040.000	30070.000	29580.000	56.450%	1788.000
2	17:15:07	72380.000	3948.000	0.000	10020.000	30390.000	29670.000	56.737%	1803.000
3	17:15:26	71110.000	3912.000	0.000	10030.000	30120.000	29900.000	56.374%	1783.000
X		71690.000	3938.000	0.000	10030.000	30200.000	29720.000	56.520%	1791.000
σ		641.700	22.540	0.000	10.520	173.900	164.600	0.191%	10.270
%RSD		0.895	0.573	0.000	0.105	0.576	0.554	0.339	0.573
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	484.800	2871.000	2546.000	401400.000	425300.000	82.070	210.800	696.500
2	17:15:07	492.800	2879.000	2544.000	398900.000	424400.000	82.590	211.700	691.000
3	17:15:26	472.700	2846.000	2545.000	396700.000	423300.000	81.870	208.700	687.500
X		483.400	2865.000	2545.000	399000.000	424300.000	82.180	210.400	691.700
σ		10.090	17.000	1.022	2331.000	1006.000	0.370	1.510	4.534
%RSD		2.088	0.593	0.040	0.584	0.237	0.450	0.718	0.655
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	700.100	6982.000	7079.000	87.050	11.210	14.670	0.000	324.700
2	17:15:07	702.600	6969.000	7109.000	86.580	11.630	13.180	0.000	327.400
3	17:15:26	692.300	6912.000	7023.000	87.910	12.060	14.350	0.000	327.200
X		698.300	6954.000	7070.000	87.180	11.630	14.070	0.000	326.400
σ		5.408	37.270	43.760	0.673	0.427	0.785	0.000	1.510
%RSD		0.774	0.536	0.619	0.772	3.668	5.579	0.000	0.463
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	0.000	21.420	21.510	57.845%	6.056	6.035	37.850	32.300
2	17:15:07	0.000	21.250	21.910	58.348%	6.139	6.184	39.000	33.270
3	17:15:26	0.000	21.010	21.780	58.365%	6.210	6.096	38.950	32.990
X		0.000	21.230	21.730	58.186%	6.135	6.105	38.600	32.850
σ		0.000	0.207	0.205	0.296%	0.077	0.075	0.655	0.499
%RSD		0.000	0.974	0.943	0.508	1.260	1.225	1.697	1.519
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:48	67.636%	1704.000	10.820	10.230	395.400	394.500	81.380%	81.358%
2	17:15:07	68.448%	1701.000	10.380	10.860	399.100	397.100	83.271%	85.031%
3	17:15:26	69.234%	1703.000	10.410	10.690	401.200	396.700	84.715%	84.530%
X		68.439%	1703.000	10.540	10.590	398.600	396.100	83.122%	83.640%
σ		0.799%	1.871	0.243	0.326	2.977	1.379	1.673%	1.992%
%RSD		1.168	0.110	2.312	3.075	0.747	0.348	2.012	2.381
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:14:48	2.720	2.763	1175.000	1084.000	1127.000	60.438%		
2	17:15:07	2.826	2.880	1168.000	1081.000	1129.000	62.064%		
3	17:15:26	2.849	2.826	1176.000	1101.000	1138.000	61.972%		
X		2.798	2.823	1173.000	1089.000	1131.000	61.491%		
σ		0.069	0.058	4.551	10.820	6.103	0.913%		
%RSD		2.466	2.070	0.388	0.994	0.539	1.485		

180-37750-B-3-E

11/4/2014 5:18:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	66.463%	4.552	84.200	82.070	0.000	45500.000	24620.000	24760.000
2	17:18:39	65.550%	4.639	87.040	79.250	0.000	44610.000	24440.000	24560.000
3	17:18:58	64.745%	4.196	76.280	76.440	0.000	44650.000	24150.000	24520.000
X		65.586%	4.462	82.500	79.250	0.000	44920.000	24400.000	24610.000
σ		0.859%	0.235	5.575	2.815	0.000	504.100	237.000	127.500
%RSD		1.310	5.270	6.757	3.552	0.000	1.122	0.971	0.518
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	61750.000	4060.000	0.000	9515.000	12080.000	12010.000	57.115%	1790.000
2	17:18:39	61710.000	4043.000	0.000	9472.000	12430.000	11960.000	56.734%	1791.000
3	17:18:58	61220.000	3962.000	0.000	9453.000	12540.000	12190.000	55.411%	1796.000
X		61560.000	4022.000	0.000	9480.000	12350.000	12050.000	56.420%	1792.000
σ		297.700	52.330	0.000	32.080	237.700	120.900	0.894%	3.368
%RSD		0.484	1.301	0.000	0.338	1.924	1.003	1.585	0.188
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	396.400	3373.000	2524.000	369100.000	389300.000	74.010	204.100	710.600
2	17:18:39	386.500	3342.000	2504.000	362900.000	384300.000	74.120	202.100	703.400
3	17:18:58	398.800	3383.000	2542.000	366300.000	385800.000	72.320	201.600	704.400
X		393.900	3366.000	2523.000	366100.000	386500.000	73.480	202.600	706.100
σ		6.521	21.240	18.650	3134.000	2543.000	1.009	1.317	3.868
%RSD		1.655	0.631	0.739	0.856	0.658	1.374	0.650	0.548
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	714.200	6171.000	6235.000	87.530	11.130	12.340	0.000	223.400
2	17:18:39	705.100	6118.000	6240.000	88.750	10.800	12.810	0.000	224.500
3	17:18:58	704.000	6166.000	6283.000	86.820	11.150	12.230	0.000	227.400
X		707.700	6152.000	6253.000	87.700	11.030	12.460	0.000	225.100
σ		5.607	29.300	26.380	0.978	0.193	0.312	0.000	2.046
%RSD		0.792	0.476	0.422	1.116	1.746	2.506	0.000	0.909
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	0.000	23.880	24.500	58.108%	7.288	7.282	31.240	26.420
2	17:18:39	0.000	24.330	24.340	58.016%	7.219	7.082	32.030	25.610
3	17:18:58	0.000	24.640	24.960	58.174%	7.079	7.153	31.570	26.290
X		0.000	24.280	24.600	58.099%	7.195	7.172	31.610	26.110
σ		0.000	0.386	0.324	0.080%	0.107	0.102	0.399	0.436
%RSD		0.000	1.589	1.316	0.137	1.481	1.419	1.262	1.669
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:18:19	68.105%	1742.000	10.830	10.810	267.800	267.100	81.954%	82.450%
2	17:18:39	69.171%	1746.000	11.180	10.950	263.300	266.400	84.209%	84.651%
3	17:18:58	70.353%	1723.000	11.070	11.020	264.200	265.400	85.216%	85.869%
X		69.209%	1737.000	11.030	10.930	265.100	266.300	83.793%	84.324%
σ		1.125%	12.270	0.177	0.106	2.385	0.894	1.670%	1.733%
%RSD		1.625	0.706	1.603	0.973	0.900	0.336	1.993	2.055
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:18:19	2.428	2.386	1126.000	1048.000	1084.000	60.662%		
2	17:18:39	2.359	2.484	1110.000	1036.000	1077.000	62.839%		
3	17:18:58	2.481	2.493	1121.000	1045.000	1087.000	63.063%		
X		2.423	2.454	1119.000	1043.000	1083.000	62.188%		
σ		0.061	0.060	8.207	6.630	4.770	1.326%		
%RSD		2.519	2.428	0.733	0.635	0.441	2.133		

180-37750-D-4-G

11/4/2014 5:21:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	68.998%	0.686	23.470	22.650	0.000	14790.000	3975.000	3987.000
2	17:22:09	67.925%	0.851	22.960	21.800	0.000	14650.000	3964.000	4007.000
3	17:22:28	68.132%	0.633	21.250	20.420	0.000	14280.000	3876.000	3920.000
x		68.352%	0.723	22.560	21.620	0.000	14580.000	3938.000	3971.000
σ		0.569%	0.114	1.163	1.124	0.000	265.700	53.720	45.490
%RSD		0.833	15.690	5.155	5.197	0.000	1.823	1.364	1.146
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	9308.000	2503.000	0.000	1755.000	20320.000	19830.000	58.729%	638.500
2	17:22:09	9275.000	2479.000	0.000	1782.000	20830.000	20170.000	57.200%	634.300
3	17:22:28	9143.000	2438.000	0.000	1751.000	20600.000	20000.000	56.900%	645.000
x		9242.000	2473.000	0.000	1763.000	20590.000	20000.000	57.609%	639.300
σ		87.760	33.140	0.000	16.480	252.100	172.500	0.981%	5.432
%RSD		0.950	1.340	0.000	0.935	1.225	0.862	1.703	0.850
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	82.780	444.100	579.500	53730.000	54050.000	13.910	30.160	74.430
2	17:22:09	82.950	444.900	581.500	53990.000	54570.000	13.990	31.270	75.610
3	17:22:28	82.820	443.300	580.000	53580.000	54020.000	13.940	30.020	74.070
x		82.850	444.100	580.300	53760.000	54210.000	13.950	30.480	74.700
σ		0.091	0.818	1.027	207.200	312.800	0.042	0.688	0.806
%RSD		0.110	0.184	0.177	0.385	0.577	0.301	2.256	1.079
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	73.960	1333.000	1351.000	15.830	0.786	1.505	0.000	189.000
2	17:22:09	74.680	1352.000	1373.000	16.250	1.256	1.756	0.000	190.200
3	17:22:28	76.380	1349.000	1377.000	15.560	0.929	1.477	0.000	192.500
x		75.010	1345.000	1367.000	15.880	0.991	1.579	0.000	190.500
σ		1.239	9.889	13.650	0.346	0.241	0.154	0.000	1.774
%RSD		1.651	0.735	0.998	2.180	24.320	9.733	0.000	0.931
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	0.000	2.501	2.408	64.466%	0.367	0.412	10.720	9.733
2	17:22:09	0.000	2.500	2.501	64.807%	0.352	0.382	10.660	9.544
3	17:22:28	0.000	2.734	2.589	64.927%	0.358	0.425	10.420	9.590
x		0.000	2.578	2.499	64.733%	0.359	0.406	10.600	9.622
σ		0.000	0.135	0.091	0.239%	0.008	0.022	0.161	0.099
%RSD		0.000	5.217	3.628	0.370	2.127	5.479	1.521	1.024
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:21:49	73.558%	244.500	1.682	1.688	49.400	49.130	86.008%	86.475%
2	17:22:09	75.283%	243.700	1.600	1.636	50.180	49.480	87.257%	88.987%
3	17:22:28	76.360%	241.200	1.739	1.743	50.160	50.270	89.256%	91.006%
x		75.067%	243.100	1.674	1.689	49.920	49.620	87.507%	88.823%
σ		1.413%	1.734	0.070	0.054	0.444	0.582	1.639%	2.270%
%RSD		1.883	0.713	4.183	3.172	0.889	1.173	1.873	2.555
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:21:49	0.474	0.446	133.300	124.600	129.400	73.413%		
2	17:22:09	0.455	0.435	136.600	127.200	132.000	74.171%		
3	17:22:28	0.449	0.442	136.000	127.500	131.800	75.556%		
x		0.459	0.441	135.300	126.400	131.100	74.380%		
σ		0.013	0.005	1.773	1.589	1.451	1.087%		
%RSD		2.849	1.196	1.311	1.257	1.107	1.461		

180-37750-D-4-G SD@5

11/4/2014 5:25:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	69.497%	0.121	8.916	8.569	0.000	2984.000	807.200	818.100
2	17:25:38	68.868%	0.221	7.590	6.660	0.000	2971.000	818.200	815.100
3	17:25:58	68.321%	0.098	6.829	6.427	0.000	2962.000	808.400	815.100
X		68.895%	0.147	7.779	7.219	0.000	2972.000	811.300	816.100
σ		0.589%	0.065	1.056	1.175	0.000	11.040	6.051	1.730
%RSD		0.854	44.630	13.580	16.280	0.000	0.372	0.746	0.212
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	1937.000	549.900	0.000	348.700	4101.000	3879.000	68.653%	126.900
2	17:25:38	1922.000	548.800	0.000	351.400	4073.000	3931.000	66.992%	125.100
3	17:25:58	1904.000	543.100	0.000	350.800	4218.000	3953.000	66.220%	124.200
X		1921.000	547.200	0.000	350.300	4131.000	3921.000	67.288%	125.400
σ		16.760	3.664	0.000	1.389	77.240	37.790	1.243%	1.384
%RSD		0.872	0.669	0.000	0.397	1.870	0.964	1.848	1.103
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	16.590	86.240	109.400	10580.000	10560.000	2.676	6.156	15.310
2	17:25:38	15.570	86.090	111.300	10630.000	10670.000	2.700	6.417	15.460
3	17:25:58	14.860	86.310	111.900	10610.000	10640.000	2.689	6.022	15.260
X		15.670	86.210	110.900	10610.000	10620.000	2.689	6.199	15.340
σ		0.870	0.109	1.329	27.580	57.400	0.012	0.201	0.105
%RSD		5.552	0.126	1.199	0.260	0.540	0.444	3.235	0.684
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	15.130	299.200	305.900	3.364	0.111	-0.522	0.000	33.100
2	17:25:38	14.670	303.800	307.200	2.841	0.074	-0.858	0.000	33.160
3	17:25:58	15.140	304.600	307.900	3.355	0.026	-1.025	0.000	33.310
X		14.980	302.500	307.000	3.187	0.070	-0.802	0.000	33.190
σ		0.269	2.920	0.985	0.299	0.043	0.256	0.000	0.106
%RSD		1.794	0.965	0.321	9.389	60.860	31.960	0.000	0.319
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	79.375%	0.296	0.409	76.469%	-0.191	-0.172	2.020	2.039
2	17:25:38	80.072%	0.282	0.365	76.487%	-0.173	-0.156	2.317	1.940
3	17:25:58	80.032%	0.274	0.391	76.149%	-0.163	-0.152	2.188	2.049
X		79.826%	0.284	0.389	76.368%	-0.175	-0.160	2.175	2.009
σ		0.392%	0.011	0.022	0.190%	0.014	0.011	0.149	0.060
%RSD		0.491	3.947	5.708	0.249	7.980	6.769	6.855	2.991
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:25:19	83.397%	45.670	0.265	0.235	9.754	9.720	90.225%	91.470%
2	17:25:38	84.392%	46.690	0.246	0.210	10.040	9.472	93.130%	94.428%
3	17:25:58	85.550%	46.120	0.280	0.231	9.856	10.100	93.243%	95.226%
X		84.446%	46.160	0.264	0.225	9.884	9.765	92.199%	93.708%
σ		1.078%	0.509	0.017	0.014	0.146	0.318	1.711%	1.979%
%RSD		1.276	1.102	6.392	6.025	1.480	3.260	1.855	2.111
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:25:19	0.080	0.081	24.830	22.540	23.650	88.006%		
2	17:25:38	0.077	0.076	25.060	23.230	23.990	88.443%		
3	17:25:58	0.091	0.080	25.190	23.150	24.210	89.018%		
X		0.083	0.079	25.030	22.970	23.950	88.489%		
σ		0.008	0.002	0.185	0.377	0.280	0.507%		
%RSD		9.070	2.875	0.739	1.640	1.169	0.573		



CCV 1369903 11/4/2014 5:28:39 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	66.503%	95.880	98.290	100.100	0.000	50030.000	48570.000	48860.000
2	17:28:58	65.315%	96.780	99.300	97.820	0.000	50380.000	48810.000	49210.000
3	17:29:17	64.861%	95.020	98.600	94.620	0.000	50550.000	49000.000	49650.000
X		65.560%	95.893%	98.730%	97.503%	0.000	100.643%	97.589%	98.480%
σ		0.848%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.293	0.920	0.523	2.814	0.000	0.524	0.441	0.795
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	509.900	4716.000	0.000	50450.000	49850.000	50180.000	69.970%	97.610
2	17:28:58	516.900	4672.000	0.000	50800.000	51380.000	50850.000	68.263%	101.400
3	17:29:17	514.900	4679.000	0.000	50840.000	51810.000	51050.000	67.179%	100.800
X		102.775%	93.776%	0.000	101.395%	102.024%	101.385%	68.471%	99.923%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.407%	n/a
%RSD		0.704	0.501	0.000	0.424	2.022	0.899	2.056	2.030
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	94.880	95.280	495.000	24760.000	24880.000	98.240	98.610	99.000
2	17:28:58	96.380	97.120	500.100	24880.000	24750.000	97.630	98.090	98.180
3	17:29:17	97.070	98.250	505.300	25150.000	24960.000	98.340	98.090	97.830
X		96.110%	96.883%	100.026%	99.724%	99.456%	98.068%	98.262%	98.339%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.165	1.546	1.027	0.783	0.428	0.394	0.305	0.609
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	98.540	106.600	107.200	98.720	101.300	102.400	0.000	99.540
2	17:28:58	98.910	106.600	106.300	99.280	101.700	102.700	0.000	99.950
3	17:29:17	98.140	107.600	110.700	99.600	99.460	103.700	0.000	100.300
X		98.527%	106.906%	108.084%	99.199%	100.841%	102.938%	0.000	99.927%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.393	0.565	2.151	0.449	1.198	0.631	0.000	0.373
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	75.162%	92.540	95.950	70.213%	99.780	99.640	100.800	101.400
2	17:28:58	77.145%	98.610	101.300	70.822%	100.300	100.000	102.600	100.800
3	17:29:17	76.768%	101.600	104.700	70.732%	101.100	101.200	102.600	101.600
X		76.359%	97.583%	100.652%	70.589%	100.392%	100.290%	102.017%	101.260%
σ		1.053%	n/a	n/a	0.329%	n/a	n/a	n/a	n/a
%RSD		1.379	4.735	4.374	0.466	0.638	0.832	1.010	0.412
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:39	78.317%	99.830	98.040	98.250	98.280	98.530	84.846%	84.846%
2	17:28:58	79.944%	99.420	100.300	99.300	98.940	101.100	86.564%	88.177%
3	17:29:17	80.024%	101.500	102.200	101.200	99.350	98.660	88.484%	89.216%
X		79.428%	100.244%	100.175%	99.598%	98.857%	99.447%	86.631%	87.413%
σ		0.964%	n/a	n/a	n/a	n/a	n/a	1.820%	2.283%
%RSD		1.213	1.089	2.096	1.525	0.548	1.483	2.100	2.612
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:28:39	103.600	103.800	103.300	104.400	104.600	77.405%		
2	17:28:58	106.800	108.200	107.900	108.300	108.100	78.105%		
3	17:29:17	109.100	109.900	109.100	110.600	110.100	78.486%		
X		106.487%	107.335%	106.767%	107.779%	107.598%	77.999%		
σ		n/a	n/a	n/a	n/a	n/a	0.548%		
%RSD		2.626	2.927	2.872	2.908	2.556	0.703		

CCB5 11/4/2014 5:34:34 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	81.364%	0.048	4.800	5.656	0.000	19.670	2.116	2.102
2	17:35:13	81.584%	-0.004	3.182	3.977	0.000	21.140	1.696	1.843
3	17:35:32	80.982%	0.007	2.932	2.792	0.000	21.320	1.938	1.981
X		81.310%	0.017	3.638	4.142	0.000	20.710	1.916	1.975
σ		0.305%	0.028	1.014	1.439	0.000	0.906	0.211	0.130
%RSD		0.375	161.100	27.880	34.750	0.000	4.374	11.000	6.569
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	4.791	6.868	0.000	-7.446	36.980	32.090	87.472%	0.073
2	17:35:13	4.938	6.383	0.000	-7.141	47.530	30.690	86.525%	-0.044
3	17:35:32	5.144	6.186	0.000	-7.446	36.900	29.940	84.858%	-0.003
X		4.957	6.479	0.000	-7.345	40.470	30.910	86.285%	0.009
σ		0.177	0.351	0.000	0.176	6.113	1.090	1.324%	0.059
%RSD		3.576	5.415	0.000	2.399	15.110	3.528	1.534	691.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	0.034	0.046	0.077	5.471	8.575	-0.000	0.081	-0.086
2	17:35:13	0.009	0.033	0.091	3.252	7.065	-0.000	0.091	-0.111
3	17:35:32	-0.004	0.032	0.093	1.303	6.373	0.005	0.082	-0.066
X		0.013	0.037	0.087	3.342	7.338	0.002	0.085	-0.088
σ		0.019	0.008	0.009	2.085	1.126	0.003	0.006	0.022
%RSD		152.300	20.980	10.360	62.400	15.350	207.000	6.511	25.530
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	-0.077	1.873	1.810	-0.486	0.009	-1.661	0.000	0.025
2	17:35:13	-0.066	1.769	2.040	-0.424	-0.105	-1.781	0.000	0.022
3	17:35:32	-0.019	1.710	1.592	-0.136	-0.130	-0.831	0.000	0.014
X		-0.054	1.784	1.814	-0.349	-0.075	-1.424	0.000	0.020
σ		0.031	0.083	0.224	0.187	0.074	0.517	0.000	0.006
%RSD		57.220	4.628	12.360	53.580	98.120	36.320	0.000	28.050
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	85.834%	0.223	0.192	81.944%	-0.319	-0.285	-0.015	-0.019
2	17:35:13	87.144%	0.172	0.199	82.396%	-0.304	-0.282	-0.013	-0.011
3	17:35:32	87.255%	0.100	0.147	82.882%	-0.292	-0.279	0.011	-0.010
X		86.745%	0.165	0.179	82.407%	-0.305	-0.282	-0.006	-0.013
σ		0.790%	0.062	0.028	0.469%	0.014	0.003	0.014	0.005
%RSD		0.911	37.530	15.810	0.569	4.432	1.125	246.400	35.690
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:53	86.192%	-0.412	0.039	0.035	0.038	0.017	90.220%	91.259%
2	17:35:13	88.019%	-0.412	0.023	0.026	0.049	0.024	92.522%	94.082%
3	17:35:32	89.231%	-0.411	0.014	0.028	0.042	0.033	94.724%	95.195%
X		87.814%	-0.411	0.025	0.030	0.043	0.025	92.489%	93.512%
σ		1.530%	0.000	0.013	0.005	0.006	0.008	2.253%	2.029%
%RSD		1.742	0.112	50.730	16.510	13.060	32.260	2.435	2.170
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:34:53	0.001	0.000	0.164	0.152	0.174	96.623%		
2	17:35:13	-0.002	0.000	0.183	0.174	0.184	97.136%		
3	17:35:32	0.005	0.002	0.223	0.185	0.194	97.516%		
X		0.001	0.001	0.190	0.170	0.184	97.092%		
σ		0.003	0.001	0.030	0.017	0.010	0.448%		
%RSD		319.300	124.100	16.010	9.969	5.348	0.461		

180-37750-B-4-G MS

11/4/2014 5:38:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	55.778%	37.810	810.800	779.500	0.000	59580.000	45630.000	46010.000
2	17:38:47	55.680%	37.990	804.400	781.700	0.000	58380.000	44550.000	45000.000
3	17:39:06	53.823%	38.760	812.300	773.200	0.000	58790.000	44800.000	45000.000
X		55.094%	38.190	809.200	778.100	0.000	58920.000	45000.000	45340.000
σ		1.101%	0.508	4.220	4.414	0.000	607.300	565.600	582.000
%RSD		1.999	1.330	0.521	0.567	0.000	1.031	1.257	1.284
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	25800.000	7080.000	0.000	47970.000	184400.000	183300.000	49.649%	1946.000
2	17:38:47	25130.000	6894.000	0.000	48270.000	184700.000	184600.000	48.651%	1947.000
3	17:39:06	24930.000	6801.000	0.000	48470.000	186100.000	185100.000	47.660%	1944.000
X		25290.000	6925.000	0.000	48240.000	185100.000	184400.000	48.653%	1946.000
σ		457.700	141.900	0.000	253.600	899.600	921.500	0.995%	1.837
%RSD		1.810	2.050	0.000	0.526	0.486	0.500	2.044	0.094
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	564.600	704.300	1169.000	65550.000	66170.000	468.800	476.200	303.400
2	17:38:47	562.900	705.200	1176.000	66100.000	66760.000	469.600	470.000	301.200
3	17:39:06	552.100	697.000	1179.000	65340.000	66260.000	463.500	466.000	299.800
X		559.900	702.200	1175.000	65660.000	66400.000	467.300	470.700	301.500
σ		6.777	4.494	4.952	389.300	316.300	3.316	5.175	1.797
%RSD		1.210	0.640	0.421	0.593	0.476	0.710	1.099	0.596
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	300.600	1920.000	1951.000	49.000	8.653	9.644	0.000	1956.000
2	17:38:47	300.600	1933.000	1979.000	51.040	8.783	11.430	0.000	1968.000
3	17:39:06	298.800	1945.000	1986.000	47.790	8.733	8.635	0.000	1980.000
X		300.000	1933.000	1972.000	49.280	8.723	9.902	0.000	1968.000
σ		1.057	12.510	18.800	1.646	0.066	1.413	0.000	12.050
%RSD		0.352	0.647	0.954	3.339	0.756	14.270	0.000	0.612
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	0.000	1089.000	1100.000	54.450%	45.610	44.950	55.020	50.020
2	17:38:47	0.000	1097.000	1111.000	54.034%	45.550	45.480	55.700	48.690
3	17:39:06	0.000	1103.000	1115.000	53.691%	45.680	45.380	55.230	47.160
X		0.000	1096.000	1109.000	54.058%	45.620	45.270	55.320	48.620
σ		0.000	7.104	7.833	0.380%	0.064	0.283	0.344	1.431
%RSD		0.000	0.648	0.707	0.702	0.140	0.625	0.622	2.944
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:27	63.994%	2187.000	402.300	400.800	1920.000	1916.000	77.191%	77.782%
2	17:38:47	65.026%	2191.000	406.500	400.600	1917.000	1919.000	78.026%	80.517%
3	17:39:06	65.351%	2177.000	412.800	410.800	1929.000	1922.000	79.964%	81.134%
X		64.790%	2185.000	407.200	404.000	1922.000	1919.000	78.394%	79.811%
σ		0.709%	7.107	5.282	5.839	6.399	2.560	1.422%	1.784%
%RSD		1.094	0.325	1.297	1.445	0.333	0.133	1.814	2.235
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:38:27	53.760	54.650	198.800	188.700	193.000	61.562%		
2	17:38:47	53.150	54.030	198.300	185.300	192.700	63.610%		
3	17:39:06	54.710	55.210	199.500	189.000	194.700	63.715%		
X		53.870	54.630	198.900	187.700	193.500	62.962%		
σ		0.787	0.587	0.605	2.073	1.085	1.213%		
%RSD		1.461	1.075	0.304	1.104	0.561	1.927		

180-37750-B-4-H MSD

11/4/2014 5:41:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	57.398%	37.800	805.900	764.000	0.000	57250.000	44490.000	44390.000
2	17:42:18	56.449%	39.410	807.100	758.500	0.000	56240.000	43610.000	44030.000
3	17:42:37	56.928%	36.160	790.200	746.300	0.000	56660.000	44120.000	44230.000
X		56.925%	37.790	801.100	756.200	0.000	56720.000	44070.000	44220.000
σ		0.475%	1.628	9.444	9.045	0.000	509.200	441.800	182.300
%RSD		0.834	4.309	1.179	1.196	0.000	0.898	1.003	0.412
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	25440.000	6567.000	0.000	46290.000	48020.000	47300.000	52.499%	1770.000
2	17:42:18	25120.000	6448.000	0.000	46520.000	47910.000	47660.000	50.491%	1794.000
3	17:42:37	24910.000	6386.000	0.000	46540.000	48360.000	47930.000	50.324%	1804.000
X		25160.000	6467.000	0.000	46450.000	48100.000	47630.000	51.105%	1789.000
σ		268.200	92.010	0.000	141.500	234.200	319.200	1.211%	17.560
%RSD		1.066	1.423	0.000	0.305	0.487	0.670	2.369	0.982
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	530.400	683.600	1032.000	63020.000	63650.000	449.200	455.200	296.000
2	17:42:18	539.800	691.800	1031.000	63040.000	63810.000	448.000	455.500	295.700
3	17:42:37	536.000	687.100	1042.000	63430.000	64310.000	446.400	447.100	295.600
X		535.400	687.500	1035.000	63160.000	63920.000	447.900	452.600	295.800
σ		4.754	4.117	6.208	232.400	344.700	1.426	4.783	0.191
%RSD		0.888	0.599	0.600	0.368	0.539	0.318	1.057	0.065
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	299.100	1927.000	1975.000	46.690	8.301	7.811	0.000	1090.000
2	17:42:18	295.100	1942.000	1989.000	46.920	8.451	8.111	0.000	1111.000
3	17:42:37	295.300	1950.000	1988.000	48.070	8.425	8.683	0.000	1107.000
X		296.500	1940.000	1984.000	47.230	8.392	8.202	0.000	1103.000
σ		2.235	11.790	7.893	0.740	0.080	0.443	0.000	11.290
%RSD		0.754	0.608	0.398	1.567	0.951	5.405	0.000	1.024
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	0.000	1056.000	1068.000	56.021%	45.440	45.450	55.540	47.850
2	17:42:18	0.000	1065.000	1076.000	55.921%	45.700	45.700	57.060	49.240
3	17:42:37	0.000	1074.000	1082.000	56.092%	45.250	45.320	56.220	49.630
X		0.000	1065.000	1075.000	56.011%	45.460	45.490	56.280	48.910
σ		0.000	8.659	6.862	0.086%	0.226	0.194	0.761	0.935
%RSD		0.000	0.813	0.638	0.153	0.496	0.427	1.352	1.911
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:41:59	65.983%	2174.000	394.800	388.900	1829.000	1840.000	80.758%	81.878%
2	17:42:18	67.540%	2147.000	400.000	398.000	1834.000	1834.000	81.735%	83.594%
3	17:42:37	67.213%	2157.000	399.200	395.800	1825.000	1848.000	83.616%	85.054%
X		66.912%	2159.000	398.000	394.200	1829.000	1841.000	82.036%	83.509%
σ		0.821%	13.730	2.808	4.771	4.565	7.055	1.453%	1.590%
%RSD		1.227	0.636	0.705	1.210	0.250	0.383	1.771	1.904
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:41:59	52.410	53.280	201.000	189.400	196.000	64.942%		
2	17:42:18	52.690	53.720	202.400	190.700	197.900	66.037%		
3	17:42:37	52.610	53.860	202.600	190.100	197.800	67.160%		
X		52.570	53.620	202.000	190.100	197.200	66.047%		
σ		0.146	0.301	0.861	0.629	1.082	1.109%		
%RSD		0.277	0.561	0.426	0.331	0.548	1.679		

180-37750-D-4-G PDS

11/4/2014 5:45:10 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	56.028%	42.680	876.900	843.100	0.000	62200.000	48260.000	48480.000
2	17:45:49	55.877%	40.680	865.300	840.500	0.000	61020.000	47940.000	48350.000
3	17:46:08	54.305%	40.780	864.800	821.600	0.000	60470.000	47230.000	47440.000
X		55.403%	41.380	869.000	835.100	0.000	61230.000	47810.000	48090.000
σ		0.954%	1.128	6.842	11.730	0.000	880.500	523.200	564.300
%RSD		1.722	2.727	0.787	1.405	0.000	1.438	1.094	1.173
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	10600.000	10380.000	0.000	49790.000	69770.000	69730.000	50.160%	1629.000
2	17:45:49	10560.000	10220.000	0.000	49970.000	70440.000	69550.000	49.503%	1610.000
3	17:46:08	10240.000	10030.000	0.000	50150.000	70950.000	70420.000	48.750%	1604.000
X		10470.000	10210.000	0.000	49970.000	70380.000	69900.000	49.471%	1614.000
σ		193.800	172.300	0.000	182.100	591.300	459.000	0.706%	13.180
%RSD		1.851	1.688	0.000	0.364	0.840	0.657	1.426	0.817
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	562.900	617.100	1056.000	52120.000	51950.000	492.900	494.500	298.000
2	17:45:49	559.600	611.000	1052.000	51680.000	52410.000	501.300	497.700	298.600
3	17:46:08	550.400	607.300	1059.000	52150.000	52420.000	495.400	495.200	298.700
X		557.600	611.800	1056.000	51990.000	52260.000	496.500	495.800	298.400
σ		6.510	4.906	3.750	262.500	268.500	4.300	1.666	0.362
%RSD		1.167	0.802	0.355	0.505	0.514	0.866	0.336	0.121
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	299.600	1688.000	1728.000	49.880	9.051	9.562	0.000	1311.000
2	17:45:49	300.400	1696.000	1726.000	49.950	9.410	12.100	0.000	1321.000
3	17:46:08	297.200	1717.000	1752.000	49.410	9.512	10.880	0.000	1323.000
X		299.100	1701.000	1735.000	49.750	9.324	10.850	0.000	1319.000
σ		1.681	15.240	14.060	0.299	0.242	1.271	0.000	6.164
%RSD		0.562	0.896	0.810	0.600	2.596	11.710	0.000	0.468
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	0.000	1206.000	1212.000	55.615%	51.420	51.520	57.060	49.790
2	17:45:49	0.000	1207.000	1226.000	55.546%	51.850	51.640	57.450	49.560
3	17:46:08	0.000	1219.000	1231.000	55.589%	52.190	51.630	56.990	48.710
X		0.000	1211.000	1223.000	55.583%	51.820	51.600	57.170	49.350
σ		0.000	7.106	9.595	0.035%	0.385	0.071	0.245	0.573
%RSD		0.000	0.587	0.784	0.063	0.743	0.137	0.428	1.160
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:45:30	65.831%	2333.000	481.900	477.100	1934.000	1947.000	78.872%	80.170%
2	17:45:49	67.024%	2324.000	476.000	479.600	1947.000	1959.000	80.359%	81.961%
3	17:46:08	67.405%	2308.000	477.000	476.900	1923.000	1920.000	83.230%	83.229%
X		66.753%	2322.000	478.300	477.900	1935.000	1942.000	80.820%	81.787%
σ		0.821%	12.390	3.153	1.480	11.810	19.870	2.216%	1.537%
%RSD		1.230	0.534	0.659	0.310	0.610	1.024	2.741	1.879
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:45:30	56.600	57.500	154.000	146.100	150.900	64.359%		
2	17:45:49	57.350	58.230	155.400	146.000	151.400	65.365%		
3	17:46:08	56.800	57.740	154.700	145.500	150.900	67.056%		
X		56.920	57.830	154.700	145.900	151.000	65.593%		
σ		0.387	0.373	0.678	0.350	0.272	1.363%		
%RSD		0.680	0.644	0.438	0.240	0.180	2.078		

180-37750-D-5-E

11/4/2014 5:48:42 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	59.219%	5.521	98.930	89.130	0.000	48970.000	27540.000	27800.000
2	17:49:21	58.415%	4.713	95.170	89.330	0.000	49490.000	27350.000	27770.000
3	17:49:41	57.703%	5.054	88.270	86.750	0.000	49150.000	27380.000	27520.000
X		58.446%	5.096	94.130	88.400	0.000	49200.000	27420.000	27700.000
σ		0.759%	0.406	5.406	1.435	0.000	266.200	103.900	153.800
%RSD		1.298	7.965	5.743	1.623	0.000	0.541	0.379	0.555
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	66290.000	3878.000	0.000	10110.000	22710.000	21870.000	53.802%	1843.000
2	17:49:21	66550.000	3843.000	0.000	10140.000	22510.000	21680.000	53.523%	1834.000
3	17:49:41	65790.000	3801.000	0.000	10040.000	22720.000	21870.000	52.774%	1817.000
X		66210.000	3840.000	0.000	10100.000	22650.000	21810.000	53.367%	1831.000
σ		385.700	38.610	0.000	50.190	118.600	110.500	0.532%	13.500
%RSD		0.583	1.005	0.000	0.497	0.524	0.507	0.997	0.737
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	497.300	4093.000	3029.000	465200.000	500200.000	84.190	238.200	825.900
2	17:49:21	481.000	4028.000	3008.000	461800.000	496900.000	82.990	236.100	785.100
3	17:49:41	483.900	3988.000	3001.000	462300.000	497500.000	82.720	235.400	822.700
X		487.400	4036.000	3013.000	463100.000	498200.000	83.300	236.600	811.200
σ		8.697	53.240	14.880	1838.000	1763.000	0.785	1.451	22.660
%RSD		1.784	1.319	0.494	0.397	0.354	0.943	0.614	2.793
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	841.200	8418.000	8502.000	102.800	13.850	16.520	0.000	298.900
2	17:49:21	830.000	8320.000	8486.000	100.600	12.730	15.870	0.000	299.900
3	17:49:41	830.200	8346.000	8493.000	101.100	13.830	15.330	0.000	304.100
X		833.800	8361.000	8494.000	101.500	13.470	15.910	0.000	301.000
σ		6.421	50.670	7.836	1.190	0.639	0.597	0.000	2.757
%RSD		0.770	0.606	0.092	1.172	4.745	3.754	0.000	0.916
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	0.000	30.720	32.080	56.847%	8.307	8.396	46.990	37.900
2	17:49:21	0.000	30.410	31.780	57.547%	8.489	8.281	46.860	38.690
3	17:49:41	0.000	30.400	31.070	57.013%	8.621	8.354	46.640	40.050
X		0.000	30.510	31.640	57.136%	8.472	8.344	46.830	38.880
σ		0.000	0.184	0.517	0.366%	0.158	0.058	0.179	1.087
%RSD		0.000	0.604	1.634	0.640	1.860	0.698	0.382	2.796
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:01	67.445%	2349.000	13.900	13.380	308.300	313.800	81.460%	81.466%
2	17:49:21	68.379%	2328.000	14.010	13.560	312.100	312.900	84.649%	83.954%
3	17:49:41	69.057%	2322.000	13.900	13.670	312.400	313.500	85.634%	86.060%
X		68.294%	2333.000	13.940	13.540	310.900	313.400	83.914%	83.827%
σ		0.810%	13.940	0.061	0.151	2.312	0.442	2.182%	2.300%
%RSD		1.186	0.597	0.437	1.113	0.744	0.141	2.600	2.744
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:49:01	2.880	2.977	1361.000	1270.000	1319.000	61.241%		
2	17:49:21	2.909	2.973	1385.000	1281.000	1332.000	61.656%		
3	17:49:41	2.979	2.977	1368.000	1275.000	1324.000	63.177%		
X		2.923	2.976	1372.000	1275.000	1325.000	62.025%		
σ		0.051	0.002	12.190	5.356	6.273	1.019%		
%RSD		1.734	0.068	0.888	0.420	0.473	1.644		

180-37750-B-6-E

11/4/2014 5:52:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	57.395%	5.658	97.580	92.430	0.000	52020.000	29350.000	29480.000
2	17:52:53	57.408%	5.762	94.270	88.770	0.000	51040.000	28600.000	29010.000
3	17:53:13	56.944%	5.343	96.110	89.920	0.000	51900.000	28870.000	29250.000
X		57.249%	5.588	95.980	90.380	0.000	51650.000	28940.000	29250.000
σ		0.264%	0.219	1.661	1.870	0.000	535.400	382.100	234.600
%RSD		0.461	3.912	1.730	2.070	0.000	1.037	1.320	0.802
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	72040.000	4299.000	0.000	10790.000	20350.000	19270.000	53.121%	2002.000
2	17:52:53	70960.000	4172.000	0.000	10790.000	20110.000	19410.000	53.055%	1978.000
3	17:53:13	71360.000	4171.000	0.000	10800.000	19790.000	19390.000	52.659%	1984.000
X		71450.000	4214.000	0.000	10790.000	20080.000	19350.000	52.945%	1988.000
σ		543.600	73.850	0.000	7.623	284.600	76.010	0.250%	12.380
%RSD		0.761	1.753	0.000	0.071	1.417	0.393	0.472	0.623
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	506.900	4246.000	3183.000	485600.000	525600.000	87.810	247.300	855.900
2	17:52:53	495.400	4210.000	3168.000	483700.000	520600.000	87.240	245.600	845.000
3	17:53:13	491.700	4215.000	3198.000	484400.000	522700.000	87.950	244.800	842.600
X		498.000	4224.000	3183.000	484600.000	523000.000	87.670	245.900	847.800
σ		7.962	19.660	15.120	947.200	2511.000	0.375	1.271	7.084
%RSD		1.599	0.466	0.475	0.196	0.480	0.427	0.517	0.836
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	861.000	8861.000	9042.000	108.300	13.800	16.810	0.000	303.300
2	17:52:53	849.900	8820.000	8995.000	106.600	14.690	15.680	0.000	306.500
3	17:53:13	853.500	8890.000	9029.000	108.100	13.700	14.920	0.000	309.500
X		854.800	8857.000	9022.000	107.700	14.070	15.810	0.000	306.400
σ		5.702	35.570	24.430	0.957	0.544	0.949	0.000	3.097
%RSD		0.667	0.402	0.271	0.889	3.865	6.002	0.000	1.011
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	0.000	30.750	31.270	56.570%	8.994	9.059	49.900	42.760
2	17:52:53	0.000	30.650	30.480	56.764%	8.891	8.744	48.480	42.360
3	17:53:13	0.000	30.380	31.290	56.724%	8.900	8.913	50.130	43.150
X		0.000	30.590	31.010	56.686%	8.928	8.905	49.500	42.750
σ		0.000	0.195	0.462	0.102%	0.057	0.158	0.892	0.393
%RSD		0.000	0.637	1.491	0.180	0.638	1.770	1.802	0.920
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:52:34	66.687%	2477.000	15.110	14.920	336.800	329.800	81.460%	82.568%
2	17:52:53	69.034%	2431.000	14.840	15.170	328.000	328.200	83.649%	84.993%
3	17:53:13	69.404%	2447.000	15.150	15.210	330.800	331.200	84.297%	85.428%
X		68.375%	2452.000	15.030	15.100	331.900	329.800	83.136%	84.330%
σ		1.473%	23.460	0.165	0.154	4.499	1.494	1.486%	1.541%
%RSD		2.155	0.957	1.094	1.017	1.356	0.453	1.788	1.828
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:52:34	3.035	3.039	1440.000	1344.000	1388.000	61.512%		
2	17:52:53	3.088	3.117	1440.000	1354.000	1402.000	62.180%		
3	17:53:13	2.994	3.106	1450.000	1351.000	1402.000	62.627%		
X		3.039	3.087	1443.000	1349.000	1397.000	62.106%		
σ		0.048	0.042	5.783	5.293	7.862	0.561%		
%RSD		1.565	1.375	0.401	0.392	0.563	0.904		

180-37750-B-7-E

11/4/2014 5:55:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	68.034%	0.695	30.390	30.610	0.000	20360.000	5648.000	5690.000
2	17:56:25	66.879%	0.887	30.460	29.190	0.000	20430.000	5712.000	5748.000
3	17:56:45	65.441%	1.012	28.840	27.060	0.000	20380.000	5668.000	5738.000
X		66.784%	0.865	29.900	28.960	0.000	20390.000	5676.000	5725.000
σ		1.299%	0.160	0.918	1.789	0.000	34.310	32.660	31.120
%RSD		1.945	18.440	3.070	6.177	0.000	0.168	0.575	0.544
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	12570.000	2742.000	0.000	2404.000	13130.000	12850.000	58.731%	842.900
2	17:56:25	12520.000	2798.000	0.000	2406.000	12900.000	12750.000	58.230%	868.600
3	17:56:45	12690.000	2695.000	0.000	2398.000	13480.000	12980.000	57.322%	832.900
X		12600.000	2745.000	0.000	2403.000	13170.000	12860.000	58.094%	848.200
σ		87.220	51.370	0.000	4.162	293.100	117.800	0.714%	18.430
%RSD		0.693	1.871	0.000	0.173	2.226	0.916	1.229	2.173
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	107.500	491.500	1027.000	72610.000	73570.000	19.320	41.440	84.900
2	17:56:25	104.300	489.300	1025.000	73010.000	73170.000	19.330	41.400	86.870
3	17:56:45	104.200	483.200	1017.000	71930.000	72720.000	19.160	40.440	85.050
X		105.300	488.000	1023.000	72520.000	73150.000	19.270	41.090	85.610
σ		1.873	4.288	5.378	545.500	428.500	0.093	0.567	1.096
%RSD		1.779	0.879	0.526	0.752	0.586	0.484	1.380	1.280
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	85.990	1498.000	1512.000	18.950	1.239	2.006	0.000	121.000
2	17:56:25	86.120	1506.000	1530.000	18.800	1.393	1.545	0.000	122.600
3	17:56:45	85.730	1502.000	1533.000	18.840	1.567	2.107	0.000	123.000
X		85.950	1502.000	1525.000	18.860	1.400	1.886	0.000	122.200
σ		0.196	3.779	11.400	0.081	0.164	0.299	0.000	1.050
%RSD		0.228	0.252	0.747	0.431	11.720	15.880	0.000	0.859
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	0.000	3.489	3.371	65.542%	0.390	0.419	11.290	10.450
2	17:56:25	0.000	3.216	3.414	65.576%	0.471	0.472	11.220	10.400
3	17:56:45	0.000	3.535	3.510	65.401%	0.521	0.432	11.190	10.460
X		0.000	3.414	3.432	65.506%	0.461	0.441	11.230	10.440
σ		0.000	0.173	0.071	0.093%	0.067	0.028	0.052	0.029
%RSD		0.000	5.055	2.079	0.142	14.450	6.248	0.462	0.275
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:56:06	74.505%	273.900	2.009	1.989	72.690	73.750	87.725%	89.575%
2	17:56:25	76.561%	274.600	1.964	1.963	73.180	72.950	89.332%	92.310%
3	17:56:45	77.082%	278.400	2.000	2.102	73.690	73.550	90.999%	93.226%
X		76.049%	275.700	1.991	2.018	73.190	73.420	89.352%	91.704%
σ		1.363%	2.443	0.024	0.074	0.497	0.412	1.637%	1.900%
%RSD		1.792	0.886	1.223	3.676	0.680	0.561	1.832	2.072
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:56:06	0.492	0.520	166.400	155.200	161.400	73.991%		
2	17:56:25	0.508	0.519	168.800	156.600	162.700	75.529%		
3	17:56:45	0.511	0.515	168.600	156.900	163.500	76.581%		
X		0.504	0.518	168.000	156.200	162.500	75.367%		
σ		0.010	0.003	1.330	0.930	1.096	1.303%		
%RSD		2.063	0.519	0.792	0.595	0.674	1.728		



180-37750-B-8-E

11/4/2014 5:59:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	47.894%	2.915	61.110	58.800	0.000	31780.000	13420.000	13580.000
2	17:59:58	45.222%	2.889	60.180	57.470	0.000	31620.000	13440.000	13570.000
3	18:00:17	44.156%	2.923	53.720	56.390	0.000	31640.000	13090.000	13200.000
X		45.757%	2.909	58.340	57.560	0.000	31680.000	13310.000	13450.000
σ		1.926%	0.018	4.028	1.206	0.000	88.960	198.900	218.700
%RSD		4.209	0.624	6.905	2.096	0.000	0.281	1.493	1.626
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	33200.000	3208.000	0.000	6043.000	938900.000	901900.000	45.085%	1171.000
2	17:59:58	32910.000	3148.000	0.000	6001.000	921600.000	887200.000	44.602%	1138.000
3	18:00:17	32300.000	3149.000	0.000	6097.000	928800.000	896800.000	42.955%	1163.000
X		32810.000	3168.000	0.000	6047.000	929800.000	895300.000	44.214%	1157.000
σ		458.200	34.410	0.000	48.170	8708.000	7501.000	1.117%	17.270
%RSD		1.397	1.086	0.000	0.797	0.937	0.838	2.526	1.492
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	305.800	1555.000	3394.000	234700.000	242900.000	48.600	102.300	338.200
2	17:59:58	302.800	1528.000	3343.000	232000.000	239700.000	48.290	102.600	336.700
3	18:00:17	304.700	1559.000	3434.000	235000.000	242500.000	48.930	103.400	336.500
X		304.400	1548.000	3391.000	233900.000	241700.000	48.610	102.800	337.100
σ		1.532	17.250	45.590	1679.000	1727.000	0.319	0.610	0.909
%RSD		0.503	1.115	1.344	0.718	0.715	0.655	0.593	0.270
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	341.100	4532.000	4598.000	56.820	6.903	9.356	0.000	5902.000
2	17:59:58	336.900	4550.000	4628.000	58.350	7.245	10.350	0.000	5892.000
3	18:00:17	343.100	4577.000	4684.000	58.670	7.091	7.858	0.000	5999.000
X		340.400	4553.000	4637.000	57.940	7.080	9.188	0.000	5931.000
σ		3.187	22.460	43.670	0.987	0.171	1.253	0.000	58.940
%RSD		0.936	0.493	0.942	1.703	2.418	13.640	0.000	0.994
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	0.000	11.960	11.960	51.101%	2.796	2.461	35.890	32.260
2	17:59:58	0.000	12.160	11.990	51.121%	2.652	2.637	35.780	32.430
3	18:00:17	0.000	12.210	12.390	50.816%	2.712	2.677	35.300	30.900
X		0.000	12.110	12.110	51.012%	2.720	2.592	35.660	31.860
σ		0.000	0.131	0.242	0.170%	0.072	0.115	0.312	0.841
%RSD		0.000	1.080	1.995	0.334	2.658	4.424	0.874	2.640
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:39	64.405%	924.200	4.845	5.143	331.200	328.600	76.552%	76.670%
2	17:59:58	65.453%	944.100	5.032	4.899	329.900	328.200	79.124%	79.521%
3	18:00:17	66.109%	942.300	4.761	4.992	324.100	327.900	80.018%	80.840%
X		65.322%	936.900	4.880	5.011	328.400	328.200	78.565%	79.010%
σ		0.859%	11.020	0.139	0.123	3.795	0.355	1.799%	2.131%
%RSD		1.315	1.176	2.842	2.462	1.156	0.108	2.290	2.697
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:59:39	1.302	1.346	622.600	578.300	604.700	55.843%		
2	17:59:58	1.282	1.326	624.100	585.100	608.700	57.545%		
3	18:00:17	1.285	1.292	631.500	591.900	613.400	58.350%		
X		1.290	1.321	626.100	585.100	608.900	57.246%		
σ		0.010	0.027	4.766	6.761	4.324	1.280%		
%RSD		0.796	2.063	0.761	1.156	0.710	2.236		

180-37750-B-9-E

11/4/2014 6:02:52 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	54.190%	4.866	81.690	75.830	0.000	46960.000	26120.000	25990.000
2	18:03:30	52.973%	4.845	82.600	77.910	0.000	47990.000	26660.000	26720.000
3	18:03:49	53.327%	4.475	77.610	75.240	0.000	47430.000	26010.000	26160.000
X		53.497%	4.729	80.630	76.330	0.000	47460.000	26260.000	26290.000
σ		0.626%	0.220	2.658	1.403	0.000	518.300	347.500	381.600
%RSD		1.170	4.647	3.297	1.838	0.000	1.092	1.323	1.452
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	62240.000	3948.000	0.000	9926.000	22690.000	22010.000	50.859%	1974.000
2	18:03:30	63420.000	4008.000	0.000	10090.000	22560.000	22340.000	50.168%	1982.000
3	18:03:49	62400.000	3881.000	0.000	9972.000	22410.000	22260.000	50.617%	1968.000
X		62680.000	3946.000	0.000	9996.000	22550.000	22210.000	50.548%	1975.000
σ		638.300	63.460	0.000	83.460	136.200	168.900	0.351%	7.105
%RSD		1.018	1.608	0.000	0.835	0.604	0.760	0.694	0.360
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	438.300	3805.000	2952.000	426500.000	454200.000	77.540	220.100	775.800
2	18:03:30	425.400	3769.000	2980.000	426000.000	453400.000	78.370	218.900	779.900
3	18:03:49	407.700	3738.000	2933.000	420900.000	450400.000	76.520	215.800	761.300
X		423.800	3771.000	2955.000	424500.000	452700.000	77.480	218.200	772.300
σ		15.380	33.500	23.240	3069.000	1952.000	0.929	2.188	9.759
%RSD		3.628	0.888	0.787	0.723	0.431	1.199	1.003	1.264
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	777.000	7218.000	7340.000	95.090	12.090	14.620	0.000	297.200
2	18:03:30	782.400	7234.000	7383.000	94.170	11.790	14.380	0.000	301.800
3	18:03:49	769.000	7178.000	7316.000	95.180	11.920	14.950	0.000	303.100
X		776.100	7210.000	7346.000	94.810	11.930	14.650	0.000	300.700
σ		6.717	29.270	33.940	0.563	0.155	0.285	0.000	3.090
%RSD		0.866	0.406	0.462	0.594	1.297	1.946	0.000	1.028
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	0.000	27.730	29.010	57.576%	7.918	7.920	40.090	32.970
2	18:03:30	0.000	29.150	28.800	57.902%	8.193	7.881	39.790	32.700
3	18:03:49	0.000	28.720	28.700	58.079%	8.021	7.970	39.970	33.350
X		0.000	28.530	28.830	57.852%	8.044	7.924	39.950	33.000
σ		0.000	0.728	0.160	0.256%	0.139	0.045	0.148	0.328
%RSD		0.000	2.552	0.553	0.442	1.729	0.567	0.371	0.992
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:03:11	69.367%	2289.000	12.010	12.210	276.700	275.100	84.757%	86.088%
2	18:03:30	71.927%	2240.000	11.910	11.740	273.800	271.500	88.361%	88.865%
3	18:03:49	72.921%	2213.000	12.010	12.090	267.600	270.100	90.345%	90.844%
X		71.405%	2248.000	11.980	12.020	272.700	272.200	87.821%	88.599%
σ		1.833%	38.620	0.060	0.244	4.685	2.566	2.833%	2.389%
%RSD		2.568	1.718	0.504	2.028	1.718	0.943	3.225	2.696
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:03:11	2.544	2.499	1231.000	1144.000	1191.000	64.867%		
2	18:03:30	2.508	2.526	1241.000	1159.000	1198.000	66.296%		
3	18:03:49	2.642	2.590	1221.000	1149.000	1188.000	67.258%		
X		2.565	2.538	1231.000	1151.000	1192.000	66.140%		
σ		0.069	0.047	10.060	7.471	4.759	1.203%		
%RSD		2.689	1.851	0.817	0.649	0.399	1.819		

180-37949-A-2-D

11/4/2014 6:06:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	28.145%	24.280	44290.000	37840.000	0.000	45270.000	30000.000	30040.000
2	18:07:02	29.562%	22.790	41290.000	35110.000	0.000	43010.000	28660.000	28580.000
3	18:07:21	29.579%	20.640	38480.000	34810.000	0.000	42850.000	28070.000	27780.000
X		29.096%	22.570	41360.000	35920.000	0.000	43710.000	28910.000	28800.000
σ		0.823%	1.832	2906.000	1672.000	0.000	1356.000	987.300	1148.000
%RSD		2.829	8.117	7.026	4.653	0.000	3.101	3.415	3.988
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	56820.000	3035.000	0.000	73820.000	1734000.000	1629000.000	46.298%	4474.000
2	18:07:02	55270.000	2930.000	0.000	72460.000	1714000.000	1613000.000	45.975%	4474.000
3	18:07:21	53290.000	2873.000	0.000	72940.000	1707000.000	1613000.000	45.239%	4435.000
X		55130.000	2946.000	0.000	73070.000	1718000.000	1618000.000	45.837%	4461.000
σ		1770.000	82.400	0.000	689.300	13930.000	9052.000	0.543%	22.650
%RSD		3.211	2.797	0.000	0.943	0.811	0.559	1.184	0.508
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	670.400	164.300	322.400	127200.000	128600.000	47.870	127.900	160.100
2	18:07:02	675.800	166.100	324.300	127900.000	128900.000	49.050	127.500	162.600
3	18:07:21	672.600	165.900	324.300	127400.000	130100.000	48.710	126.400	161.100
X		672.900	165.400	323.700	127500.000	129200.000	48.540	127.300	161.200
σ		2.734	0.981	1.120	400.800	802.000	0.606	0.760	1.246
%RSD		0.406	0.593	0.346	0.314	0.621	1.248	0.598	0.773
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	157.700	831.400	813.300	206.000	286.200	264.900	0.000	15280.000
2	18:07:02	160.500	835.000	831.000	209.900	290.900	268.300	0.000	15290.000
3	18:07:21	159.200	842.600	837.800	208.100	293.100	269.400	0.000	15310.000
X		159.200	836.300	827.400	208.000	290.100	267.500	0.000	15290.000
σ		1.395	5.739	12.640	1.986	3.533	2.319	0.000	15.430
%RSD		0.877	0.686	1.528	0.955	1.218	0.867	0.000	0.101
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	108.593%	152.500	182.900	48.555%	0.392	0.298	146.000	139.100
2	18:07:02	110.900%	151.700	184.600	49.582%	0.437	0.396	144.700	139.500
3	18:07:21	111.822%	153.100	185.400	49.669%	0.472	0.274	146.100	138.700
X		110.438%	152.400	184.300	49.269%	0.433	0.323	145.600	139.100
σ		1.663%	0.688	1.281	0.619%	0.040	0.064	0.806	0.419
%RSD		1.506	0.451	0.695	1.257	9.309	19.910	0.554	0.302
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:06:43	62.913%	26.680	6.810	7.291	659.100	659.300	76.882%	77.740%
2	18:07:02	65.363%	26.120	7.142	7.586	657.800	655.400	80.162%	80.576%
3	18:07:21	66.228%	24.790	6.763	7.333	650.500	651.400	80.745%	81.582%
X		64.835%	25.860	6.905	7.403	655.800	655.300	79.263%	79.966%
σ		1.719%	0.972	0.206	0.160	4.655	3.924	2.082%	1.992%
%RSD		2.652	3.760	2.988	2.155	0.710	0.599	2.627	2.492
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:06:43	29.000	29.070	359.700	332.800	347.100	50.609%		
2	18:07:02	28.870	29.040	356.700	332.600	348.100	51.993%		
3	18:07:21	29.250	28.960	356.700	333.400	346.400	52.863%		
X		29.040	29.030	357.700	332.900	347.200	51.822%		
σ		0.192	0.056	1.743	0.440	0.836	1.136%		
%RSD		0.662	0.194	0.487	0.132	0.241	2.193		

180-37949-A-4-D

11/4/2014 6:09:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	28.907%	0.015	96450.000	83930.000	0.000	167500.000	202700.000	202700.000
2	18:10:32	29.100%	-0.014	95420.000	82620.000	0.000	164600.000	199000.000	198900.000
3	18:10:52	27.463%	0.077	102400.000	88860.000	0.000	173300.000	206500.000	206500.000
x		28.490%	0.026	98080.000	85140.000	0.000	168500.000	202700.000	202700.000
σ		0.894%	0.047	3740.000	3292.000	0.000	4440.000	3788.000	3837.000
%RSD		3.139	180.300	3.813	3.867	0.000	2.635	1.869	1.893
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	206.500	113.700	0.000	84510.000	2297000.000	2176000.000	37.652%	5.437
2	18:10:32	204.700	112.500	0.000	82910.000	2256000.000	2141000.000	37.817%	5.887
3	18:10:52	212.100	110.800	0.000	84490.000	2293000.000	2178000.000	36.791%	5.503
x		207.800	112.300	0.000	83970.000	2282000.000	2165000.000	37.420%	5.609
σ		3.840	1.469	0.000	913.600	22900.000	20880.000	0.551%	0.243
%RSD		1.848	1.308	0.000	1.088	1.004	0.964	1.472	4.331
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	-2.119	50.530	14.850	120.500	1035.000	0.348	-14.760	7.386
2	18:10:32	-0.465	50.150	14.780	113.400	980.600	0.365	-14.430	6.911
3	18:10:52	-1.982	50.990	15.010	112.700	1150.000	0.336	-15.210	7.239
x		-1.522	50.560	14.880	115.500	1055.000	0.350	-14.800	7.179
σ		0.918	0.420	0.118	4.268	86.610	0.015	0.393	0.243
%RSD		60.320	0.830	0.795	3.694	8.206	4.220	2.656	3.390
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	6.498	8.400	7.518	67.400	916.000	914.700	0.000	36130.000
2	18:10:32	6.788	7.768	7.984	65.920	907.200	903.700	0.000	35780.000
3	18:10:52	6.764	7.979	7.221	72.190	915.100	914.300	0.000	35840.000
x		6.683	8.049	7.574	68.500	912.800	910.900	0.000	35910.000
σ		0.161	0.322	0.385	3.277	4.832	6.234	0.000	186.400
%RSD		2.408	3.996	5.078	4.784	0.529	0.684	0.000	0.519
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	51.644%	1.481	1.339	42.224%	-0.317	-0.319	229.600	219.200
2	18:10:32	51.711%	1.097	1.169	41.557%	-0.304	-0.303	231.700	222.600
3	18:10:52	51.089%	0.755	0.931	41.275%	-0.294	-0.309	235.100	221.400
x		51.481%	1.111	1.146	41.685%	-0.305	-0.311	232.100	221.100
σ		0.341%	0.363	0.205	0.488%	0.011	0.008	2.737	1.682
%RSD		0.663	32.690	17.890	1.170	3.720	2.575	1.179	0.761
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:13	54.484%	7.035	-0.064	0.351	114.500	115.000	64.813%	65.414%
2	18:10:32	54.312%	6.682	-0.037	0.330	117.300	115.500	65.786%	65.541%
3	18:10:52	54.598%	6.554	-0.042	0.378	115.500	114.400	66.062%	65.666%
x		54.464%	6.757	-0.048	0.353	115.800	115.000	65.554%	65.540%
σ		0.144%	0.249	0.014	0.024	1.409	0.544	0.657%	0.126%
%RSD		0.265	3.685	30.100	6.774	1.217	0.473	1.001	0.192
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:10:13	0.107	0.074	0.493	0.460	0.508	44.938%		
2	18:10:32	0.094	0.096	0.522	0.545	0.514	46.068%		
3	18:10:52	0.075	0.105	0.555	0.511	0.536	46.014%		
x		0.092	0.091	0.523	0.505	0.519	45.673%		
σ		0.016	0.016	0.031	0.043	0.014	0.637%		
%RSD		17.300	16.990	5.961	8.506	2.755	1.396		

CCV 1369903 11/4/2014 6:13:33 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	63.428%	99.950	414.700	405.100	0.000	49980.000	48760.000	48570.000
2	18:13:52	62.724%	100.700	361.300	354.800	0.000	50140.000	49030.000	49090.000
3	18:14:11	61.689%	100.600	328.600	322.100	0.000	50770.000	49590.000	49510.000
X		62.614%	100.432%	368.197%	360.666%	0.000	100.591%	98.258%	98.112%
σ		0.875%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.397	0.424	11.800	11.600	0.000	0.834	0.869	0.952
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	510.900	4716.000	0.000	49890.000	50630.000	50000.000	64.855%	99.940
2	18:13:52	516.000	4721.000	0.000	50640.000	51350.000	50670.000	64.581%	102.300
3	18:14:11	519.600	4799.000	0.000	50520.000	50840.000	50440.000	64.405%	101.700
X		103.107%	94.905%	0.000	100.702%	101.879%	100.741%	64.614%	101.320%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.227%	n/a
%RSD		0.849	0.981	0.000	0.796	0.733	0.676	0.351	1.217
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	97.280	97.740	496.100	24730.000	24670.000	98.770	99.790	98.640
2	18:13:52	98.650	98.310	501.800	24870.000	24810.000	98.510	98.540	99.660
3	18:14:11	97.770	98.170	496.900	24850.000	24810.000	97.930	97.750	99.030
X		97.897%	98.072%	99.650%	99.259%	99.057%	98.405%	98.693%	99.111%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.708	0.301	0.627	0.289	0.321	0.437	1.044	0.519
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	99.640	105.500	106.400	100.100	103.400	105.700	0.000	101.100
2	18:13:52	100.100	108.300	108.000	99.200	103.200	104.100	0.000	100.700
3	18:14:11	99.670	106.900	108.300	101.000	103.300	104.500	0.000	100.800
X		99.798%	106.898%	107.588%	100.114%	103.296%	104.742%	0.000	100.852%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.251	1.321	0.934	0.907	0.099	0.790	0.000	0.212
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	67.979%	92.180	95.540	62.473%	101.200	100.800	102.800	100.300
2	18:13:52	69.652%	98.200	101.300	63.362%	101.400	101.200	103.500	101.300
3	18:14:11	69.887%	102.300	105.000	63.596%	101.700	101.700	105.400	103.100
X		69.173%	97.558%	100.634%	63.144%	101.439%	101.253%	103.907%	101.562%
σ		1.041%	n/a	n/a	0.592%	n/a	n/a	n/a	n/a
%RSD		1.504	5.216	4.748	0.938	0.282	0.445	1.302	1.393
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:33	70.511%	99.690	99.470	99.420	98.890	99.250	74.925%	76.340%
2	18:13:52	72.416%	99.850	100.500	99.720	97.150	97.930	78.580%	78.552%
3	18:14:11	72.356%	101.000	101.700	99.700	98.190	97.910	78.975%	79.192%
X		71.761%	100.166%	100.580%	99.613%	98.077%	98.364%	77.493%	78.028%
σ		1.083%	n/a	n/a	n/a	n/a	n/a	2.233%	1.497%
%RSD		1.509	0.692	1.125	0.165	0.896	0.783	2.881	1.918
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:13:33	105.400	105.700	105.900	106.300	106.900	69.123%		
2	18:13:52	108.300	108.600	109.300	110.700	110.300	69.305%		
3	18:14:11	109.100	110.600	110.600	112.000	111.500	70.326%		
X		107.593%	108.287%	108.636%	109.664%	109.546%	69.585%		
σ		n/a	n/a	n/a	n/a	n/a	0.648%		
%RSD		1.836	2.283	2.243	2.701	2.173	0.932		

CCB6 11/4/2014 6:19:29 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	81.241%	-0.014	59.870	62.060	0.000	11.810	2.255	2.328
2	18:20:07	81.773%	-0.004	61.070	57.220	0.000	12.000	1.919	2.332
3	18:20:26	81.810%	0.007	58.000	55.970	0.000	12.550	2.455	2.276
X		81.608%	-0.004	59.650	58.420	0.000	12.120	2.209	2.312
σ		0.318%	0.010	1.550	3.216	0.000	0.387	0.271	0.032
%RSD		0.390	274.100	2.599	5.506	0.000	3.191	12.250	1.372
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	4.969	8.623	0.000	-5.345	38.450	32.220	84.300%	0.078
2	18:20:07	4.920	8.247	0.000	-5.401	42.750	36.240	83.506%	0.038
3	18:20:26	5.089	8.278	0.000	-5.127	25.830	34.680	83.208%	0.120
X		4.993	8.383	0.000	-5.291	35.680	34.380	83.671%	0.079
σ		0.087	0.208	0.000	0.144	8.794	2.029	0.564%	0.041
%RSD		1.748	2.485	0.000	2.731	24.650	5.902	0.674	52.040
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	-0.043	0.075	0.121	6.038	8.375	0.004	0.082	-0.067
2	18:20:07	0.080	0.083	0.102	4.223	7.852	0.001	0.121	-0.063
3	18:20:26	-0.073	0.005	0.107	2.776	7.645	0.001	0.082	-0.072
X		-0.012	0.054	0.110	4.346	7.958	0.002	0.095	-0.068
σ		0.081	0.043	0.010	1.634	0.376	0.002	0.022	0.005
%RSD		675.800	78.230	8.821	37.600	4.728	105.100	23.550	6.905
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	-0.101	1.743	1.874	-0.454	-0.185	-1.632	0.000	0.045
2	18:20:07	-0.033	1.856	1.787	-0.296	-0.223	-0.756	0.000	0.049
3	18:20:26	-0.036	1.885	1.824	-0.362	0.036	-1.169	0.000	0.056
X		-0.057	1.828	1.828	-0.371	-0.124	-1.186	0.000	0.050
σ		0.038	0.075	0.044	0.079	0.140	0.438	0.000	0.006
%RSD		67.450	4.102	2.411	21.350	112.700	36.930	0.000	11.730
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	80.893%	0.182	0.208	76.691%	-0.310	-0.288	-0.016	-0.011
2	18:20:07	82.239%	0.151	0.215	77.361%	-0.309	-0.303	-0.038	-0.045
3	18:20:26	83.116%	0.117	0.120	77.603%	-0.303	-0.306	-0.037	-0.024
X		82.083%	0.150	0.181	77.218%	-0.307	-0.299	-0.030	-0.026
σ		1.120%	0.032	0.053	0.472%	0.004	0.010	0.012	0.017
%RSD		1.364	21.590	29.480	0.612	1.349	3.256	40.800	64.590
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:48	80.302%	-0.418	0.024	0.064	0.054	0.023	82.885%	82.665%
2	18:20:07	82.310%	-0.441	0.019	0.033	0.053	0.041	84.372%	84.485%
3	18:20:26	83.693%	-0.452	-0.009	0.017	0.033	0.029	86.616%	87.157%
X		82.101%	-0.437	0.011	0.038	0.047	0.031	84.625%	84.769%
σ		1.705%	0.018	0.018	0.024	0.012	0.009	1.878%	2.259%
%RSD		2.077	4.036	155.000	62.220	25.900	29.350	2.219	2.665
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:19:48	0.005	0.007	0.199	0.189	0.195	88.108%		
2	18:20:07	0.001	0.003	0.243	0.187	0.209	88.769%		
3	18:20:26	0.004	0.005	0.225	0.205	0.213	88.944%		
X		0.003	0.005	0.223	0.194	0.206	88.607%		
σ		0.002	0.002	0.022	0.010	0.009	0.441%		
%RSD		61.200	41.350	9.999	5.005	4.614	0.497		

CRI 1370008 11/4/2014 6:23:04 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	69.008%	1.015	58.040	57.180	0.000	97.500	91.590	86.730
2	18:23:42	68.237%	1.039	58.940	56.260	0.000	98.370	85.960	86.740
3	18:24:01	68.880%	1.006	56.190	53.430	0.000	98.200	88.520	87.750
X		68.708%	101.964%	1154.467%	1112.457%	0.000	98.023%	88.687%	87.076%
σ		0.413%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.601	1.672	2.422	3.511	0.000	0.471	3.177	0.671
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	27.270	418.400	0.000	71.830	80.650	78.310	91.394%	3.900
2	18:23:42	27.850	423.200	0.000	72.290	88.810	85.870	90.557%	3.919
3	18:24:01	27.450	416.900	0.000	73.290	107.900	80.310	89.879%	3.772
X		91.743%	83.905%	0.000	72.471%	92.459%	81.495%	90.610%	77.272%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.759%	n/a
%RSD		1.080	0.781	0.000	1.023	15.140	4.807	0.837	2.064
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	0.749	1.570	3.737	30.000	36.230	0.368	0.726	1.406
2	18:23:42	0.726	1.520	3.717	29.770	38.510	0.342	0.777	1.391
3	18:24:01	0.629	1.495	3.751	30.010	38.480	0.343	0.740	1.377
X		70.136%	76.417%	74.701%	59.851%	75.486%	70.170%	74.787%	69.564%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		9.046	2.514	0.462	0.457	3.466	4.182	3.519	1.045
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	1.301	6.110	6.404	-0.413	3.143	-1.007	0.000	3.256
2	18:23:42	1.411	6.418	6.842	-0.503	3.292	-1.256	0.000	3.382
3	18:24:01	1.427	6.923	6.976	-0.321	3.172	-1.091	0.000	3.292
X		68.987%	129.672%	134.818%	-41.204%	64.050%	-22.363%	0.000	66.196%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		4.970	6.326	4.437	22.090	2.457	11.320	0.000	1.971
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	111.316%	3.607	4.200	76.648%	0.711	0.646	0.906	0.898
2	18:23:42	113.932%	3.832	4.137	77.459%	0.656	0.665	0.817	0.934
3	18:24:01	114.787%	3.882	4.405	77.651%	0.689	0.708	0.949	0.933
X		113.345%	75.474%	84.945%	77.252%	68.534%	67.280%	89.064%	92.148%
σ		1.809%	n/a	n/a	0.532%	n/a	n/a	n/a	n/a
%RSD		1.596	3.883	3.296	0.689	4.063	4.761	7.536	2.201
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:23:23	86.347%	3.694	1.708	1.775	9.253	9.244	83.451%	84.113%
2	18:23:42	88.232%	3.556	1.792	1.803	9.266	8.889	86.688%	86.895%
3	18:24:01	89.659%	3.571	1.752	1.841	9.177	9.296	88.254%	88.637%
X		88.079%	72.139%	87.537%	90.309%	92.321%	91.431%	86.131%	86.548%
σ		1.662%	n/a	n/a	n/a	n/a	n/a	2.450%	2.282%
%RSD		1.886	2.106	2.405	1.816	0.518	2.420	2.844	2.636
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:23:23	0.912	0.878	1.142	1.040	1.081	91.632%		
2	18:23:42	0.877	0.899	1.108	1.052	1.092	93.261%		
3	18:24:01	0.874	0.887	1.177	1.051	1.108	94.473%		
X		88.765%	88.799%	114.255%	104.760%	109.347%	93.122%		
σ		n/a	n/a	n/a	n/a	n/a	1.426%		
%RSD		2.399	1.216	3.035	0.650	1.225	1.531		

MB 180-123365/1-A

11/4/2014 6:26:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	68.371%	0.011	52.390	50.620	0.000	10.810	0.363	0.398
2	18:27:14	67.167%	-0.014	51.860	50.830	0.000	11.520	0.611	0.633
3	18:27:34	68.230%	-0.002	49.850	48.380	0.000	11.290	0.577	0.443
X		67.923%	-0.002	51.370	49.940	0.000	11.210	0.517	0.491
σ		0.658%	0.012	1.341	1.358	0.000	0.363	0.134	0.125
%RSD		0.969	721.000	2.611	2.719	0.000	3.242	25.950	25.390
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	1.155	5.508	0.000	-6.128	11.460	11.170	68.944%	0.107
2	18:27:14	1.297	4.439	0.000	-6.417	8.568	8.285	67.477%	0.144
3	18:27:34	1.207	4.541	0.000	-6.805	11.850	10.900	67.224%	0.195
X		1.220	4.829	0.000	-6.450	10.630	10.120	67.882%	0.148
σ		0.072	0.590	0.000	0.340	1.794	1.595	0.929%	0.044
%RSD		5.884	12.220	0.000	5.268	16.880	15.760	1.368	29.670
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	-0.456	0.395	0.019	7.834	4.907	-0.007	-0.001	-0.122
2	18:27:14	-0.235	0.377	0.022	5.553	4.332	-0.005	-0.014	-0.115
3	18:27:34	-0.096	0.403	0.022	4.940	2.779	-0.007	0.020	-0.143
X		-0.262	0.392	0.021	6.109	4.006	-0.006	0.002	-0.127
σ		0.181	0.013	0.002	1.525	1.101	0.001	0.017	0.015
%RSD		69.150	3.366	9.247	24.960	27.480	15.750	1087.000	11.540
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	-0.144	1.541	1.348	-0.366	0.022	-0.538	0.000	0.012
2	18:27:14	-0.158	1.623	1.553	-0.230	0.106	-0.717	0.000	0.011
3	18:27:34	-0.137	1.413	1.414	0.029	0.061	1.146	0.000	0.011
X		-0.146	1.526	1.438	-0.189	0.063	-0.036	0.000	0.011
σ		0.011	0.106	0.105	0.201	0.042	1.028	0.000	0.001
%RSD		7.486	6.945	7.265	106.400	66.970	2825.000	0.000	7.592
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	75.107%	0.089	0.051	75.068%	-0.304	-0.308	-0.063	-0.066
2	18:27:14	75.960%	0.029	0.035	75.055%	-0.312	-0.290	-0.044	-0.047
3	18:27:34	76.554%	-0.021	0.018	74.863%	-0.298	-0.293	-0.073	-0.059
X		75.874%	0.033	0.034	74.995%	-0.305	-0.297	-0.060	-0.057
σ		0.728%	0.055	0.017	0.115%	0.007	0.009	0.015	0.010
%RSD		0.959	170.000	48.240	0.153	2.208	3.161	24.190	16.780
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:55	79.701%	0.303	-0.019	0.033	0.034	0.015	85.170%	85.355%
2	18:27:14	81.907%	0.189	-0.021	-0.042	0.020	0.033	86.250%	86.929%
3	18:27:34	82.085%	0.013	-0.020	-0.027	0.007	0.007	88.087%	88.084%
X		81.231%	0.168	-0.020	-0.012	0.021	0.019	86.502%	86.789%
σ		1.328%	0.146	0.001	0.040	0.013	0.013	1.474%	1.370%
%RSD		1.635	87.000	6.311	323.900	64.820	71.270	1.705	1.578
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:26:55	-0.002	0.000	0.089	0.091	0.094	83.932%		
2	18:27:14	-0.000	-0.000	0.080	0.077	0.075	85.426%		
3	18:27:34	-0.005	-0.003	0.078	0.056	0.067	85.812%		
X		-0.002	-0.001	0.082	0.074	0.079	85.057%		
σ		0.002	0.001	0.006	0.018	0.014	0.993%		
%RSD		105.400	144.600	6.844	23.720	17.670	1.168		



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11/4/2014 6:30:06 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	56.094%	42.500	902.900	884.500	0.000	46770.000	44040.000	44350.000
2	18:30:45	55.051%	41.100	909.300	872.500	0.000	46490.000	43480.000	43640.000
3	18:31:04	53.779%	44.010	925.100	890.200	0.000	47680.000	44290.000	44230.000
X		54.975%	42.540	912.400	882.400	0.000	46980.000	43940.000	44070.000
σ		1.159%	1.454	11.420	9.042	0.000	624.100	413.200	383.100
%RSD		2.109	3.419	1.252	1.025	0.000	1.329	0.940	0.869
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	1734.000	7150.000	0.000	47760.000	49290.000	50000.000	48.149%	964.400
2	18:30:45	1701.000	7082.000	0.000	47990.000	49210.000	49420.000	47.096%	956.800
3	18:31:04	1719.000	7120.000	0.000	48170.000	50970.000	49970.000	46.089%	966.800
X		1718.000	7117.000	0.000	47980.000	49820.000	49800.000	47.111%	962.700
σ		16.490	34.260	0.000	206.400	991.800	324.700	1.030%	5.175
%RSD		0.960	0.481	0.000	0.430	1.991	0.652	2.187	0.538
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	476.800	190.800	501.400	1014.000	1026.000	495.500	482.300	236.800
2	18:30:45	473.200	189.500	498.100	996.400	1021.000	488.900	474.400	233.600
3	18:31:04	473.400	189.200	499.900	1003.000	1036.000	487.400	472.200	232.700
X		474.500	189.800	499.800	1004.000	1028.000	490.600	476.300	234.400
σ		1.981	0.844	1.644	9.115	7.648	4.304	5.348	2.173
%RSD		0.417	0.445	0.329	0.907	0.744	0.877	1.123	0.927
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	237.400	426.700	438.600	32.590	8.369	9.771	0.000	1189.000
2	18:30:45	234.400	423.200	429.100	32.430	8.006	10.970	0.000	1169.000
3	18:31:04	233.000	426.000	435.100	32.850	8.314	8.771	0.000	1175.000
X		234.900	425.300	434.300	32.620	8.230	9.838	0.000	1178.000
σ		2.281	1.881	4.793	0.210	0.195	1.103	0.000	10.190
%RSD		0.971	0.442	1.104	0.644	2.375	11.210	0.000	0.865
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	47.594%	1175.000	1157.000	53.535%	47.220	47.420	43.820	38.410
2	18:30:45	47.831%	1171.000	1166.000	53.451%	48.120	47.090	44.690	38.700
3	18:31:04	47.478%	1181.000	1174.000	53.388%	47.460	47.320	44.560	37.540
X		47.634%	1175.000	1165.000	53.458%	47.600	47.280	44.360	38.220
σ		0.180%	4.868	8.598	0.074%	0.467	0.168	0.471	0.603
%RSD		0.377	0.414	0.738	0.138	0.982	0.355	1.061	1.577
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:26	62.861%	1971.000	435.700	431.800	1857.000	1859.000	74.477%	75.981%
2	18:30:45	63.233%	1957.000	438.800	440.600	1861.000	1866.000	75.840%	78.201%
3	18:31:04	62.872%	1970.000	436.500	436.200	1867.000	1870.000	76.693%	78.266%
X		62.989%	1966.000	437.000	436.200	1862.000	1865.000	75.670%	77.483%
σ		0.212%	7.775	1.640	4.406	5.057	5.945	1.117%	1.301%
%RSD		0.336	0.396	0.375	1.010	0.272	0.319	1.477	1.678
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:30:26	54.110	54.450	21.920	22.560	22.380	61.870%		
2	18:30:45	54.640	55.550	21.730	22.660	22.490	62.470%		
3	18:31:04	54.420	55.480	22.180	22.500	22.480	62.972%		
X		54.390	55.160	21.940	22.570	22.450	62.438%		
σ		0.267	0.616	0.226	0.080	0.062	0.552%		
%RSD		0.491	1.117	1.032	0.355	0.278	0.884		

180-37949-A-5-D

11/4/2014 6:33:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	41.992%	0.006	34780.000	30970.000	0.000	356600.000	61160.000	61530.000
2	18:34:16	40.878%	0.048	35960.000	31510.000	0.000	361600.000	61920.000	62150.000
3	18:34:35	41.930%	0.006	34640.000	30820.000	0.000	354500.000	61330.000	61710.000
X		41.600%	0.020	35130.000	31100.000	0.000	357600.000	61470.000	61800.000
σ		0.626%	0.024	725.000	364.800	0.000	3629.000	397.600	318.900
%RSD		1.505	120.800	2.064	1.173	0.000	1.015	0.647	0.516
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	21.100	43.580	0.000	9338.000	1310000.000	1250000.000	41.802%	1.766
2	18:34:16	20.810	42.370	0.000	9350.000	1301000.000	1244000.000	41.905%	1.680
3	18:34:35	20.520	39.630	0.000	9332.000	1298000.000	1237000.000	42.973%	1.273
X		20.810	41.860	0.000	9340.000	1303000.000	1244000.000	42.227%	1.573
σ		0.290	2.023	0.000	9.147	6193.000	6729.000	0.648%	0.264
%RSD		1.392	4.833	0.000	0.098	0.475	0.541	1.536	16.770
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	-0.676	11.720	4.851	42.200	585.300	0.208	-8.016	5.316
2	18:34:16	-0.926	11.400	4.958	41.080	575.700	0.235	-8.319	5.386
3	18:34:35	-0.829	11.170	4.644	39.610	605.800	0.215	-8.543	5.286
X		-0.811	11.430	4.818	40.970	588.900	0.219	-8.293	5.329
σ		0.126	0.278	0.159	1.299	15.380	0.014	0.265	0.052
%RSD		15.580	2.432	3.308	3.172	2.611	6.389	3.190	0.968
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	3.569	6.816	6.872	29.540	222.800	223.800	0.000	20980.000
2	18:34:16	3.388	7.279	7.330	28.140	221.600	222.700	0.000	20530.000
3	18:34:35	3.517	6.951	6.721	29.560	218.300	221.300	0.000	20600.000
X		3.491	7.015	6.974	29.080	220.900	222.600	0.000	20710.000
σ		0.094	0.238	0.317	0.814	2.368	1.244	0.000	239.300
%RSD		2.681	3.390	4.550	2.800	1.072	0.559	0.000	1.156
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	53.588%	1.775	1.801	45.092%	-0.316	-0.297	137.500	134.300
2	18:34:16	55.233%	1.326	1.619	45.647%	-0.342	-0.292	136.300	133.800
3	18:34:35	56.001%	1.079	1.222	46.176%	-0.298	-0.311	137.600	132.900
X		54.941%	1.393	1.547	45.638%	-0.319	-0.300	137.200	133.700
σ		1.233%	0.352	0.296	0.542%	0.022	0.010	0.707	0.750
%RSD		2.244	25.290	19.130	1.188	6.834	3.353	0.515	0.561
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:33:57	55.535%	6.925	0.108	0.364	70.430	70.010	66.488%	67.764%
2	18:34:16	57.794%	5.848	0.103	0.319	69.520	70.890	68.755%	69.513%
3	18:34:35	59.256%	5.457	0.024	0.273	69.540	68.810	69.771%	71.004%
X		57.528%	6.077	0.079	0.319	69.830	69.900	68.338%	69.427%
σ		1.875%	0.760	0.047	0.045	0.520	1.045	1.681%	1.622%
%RSD		3.259	12.510	59.910	14.230	0.745	1.495	2.460	2.336
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:33:57	0.053	0.060	0.456	0.463	0.475	49.089%		
2	18:34:16	0.050	0.060	0.455	0.463	0.445	50.682%		
3	18:34:35	0.047	0.043	0.468	0.460	0.465	50.324%		
X		0.050	0.055	0.460	0.462	0.462	50.032%		
σ		0.003	0.010	0.007	0.002	0.016	0.836%		
%RSD		5.141	18.640	1.583	0.464	3.378	1.671		

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11/4/2014 6:37:09 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	32.507%	-0.014	64360.000	58120.000	0.000	2384000.000	134800.000	134700.000
2	18:37:47	33.056%	0.062	65070.000	58110.000	0.000	2371000.000	135600.000	135300.000
3	18:38:06	33.682%	-0.014	64960.000	57890.000	0.000	2349000.000	136300.000	136000.000
X		33.082%	0.011	64800.000	58040.000	0.000	2368000.000	135600.000	135300.000
σ		0.588%	0.044	382.900	132.800	0.000	17510.000	781.700	636.800
%RSD		1.778	393.700	0.591	0.229	0.000	0.740	0.577	0.471
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	246.800	652.900	0.000	74940.000	39870.000	37520.000	40.700%	11.970
2	18:37:47	245.100	630.000	0.000	75320.000	39540.000	37840.000	42.093%	13.220
3	18:38:06	245.000	638.600	0.000	76150.000	39680.000	37990.000	43.152%	11.980
X		245.600	640.500	0.000	75470.000	39700.000	37780.000	41.982%	12.390
σ		0.994	11.570	0.000	614.900	163.000	239.800	1.230%	0.719
%RSD		0.405	1.806	0.000	0.815	0.411	0.635	2.930	5.805
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	-1.034	41.400	34.150	402.000	434.600	0.209	0.488	24.940
2	18:37:47	-1.128	40.890	33.850	399.500	419.500	0.208	0.412	26.110
3	18:38:06	-0.368	41.810	34.490	403.500	429.600	0.227	0.518	27.560
X		-0.843	41.370	34.160	401.700	427.900	0.215	0.473	26.200
σ		0.414	0.460	0.317	2.039	7.683	0.011	0.055	1.311
%RSD		49.120	1.112	0.929	0.508	1.795	4.948	11.550	5.002
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	10.760	8.390	8.900	16.150	474.400	482.100	0.000	5700.000
2	18:37:47	10.510	8.763	7.997	16.230	469.700	472.900	0.000	5649.000
3	18:38:06	10.470	8.878	9.201	15.190	472.800	469.100	0.000	5650.000
X		10.580	8.677	8.699	15.860	472.300	474.700	0.000	5666.000
σ		0.155	0.255	0.626	0.576	2.394	6.664	0.000	28.940
%RSD		1.462	2.943	7.202	3.630	0.507	1.404	0.000	0.511
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	47.176%	0.743	0.744	38.037%	-0.313	-0.305	0.320	0.267
2	18:37:47	49.669%	0.881	0.706	39.605%	-0.313	-0.308	0.492	0.533
3	18:38:06	51.275%	0.710	0.713	41.083%	-0.325	-0.300	0.320	0.379
X		49.373%	0.778	0.721	39.575%	-0.317	-0.304	0.377	0.393
σ		2.066%	0.091	0.020	1.523%	0.007	0.004	0.099	0.134
%RSD		4.184	11.660	2.814	3.849	2.215	1.419	26.300	34.010
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:37:28	47.562%	4.214	-0.025	0.049	16.170	15.690	56.609%	56.742%
2	18:37:47	49.847%	4.072	-0.041	0.057	16.260	16.010	58.754%	59.306%
3	18:38:06	51.820%	4.057	-0.020	0.057	15.900	15.920	61.614%	62.330%
X		49.743%	4.114	-0.028	0.054	16.110	15.870	58.992%	59.459%
σ		2.131%	0.087	0.011	0.004	0.184	0.166	2.511%	2.797%
%RSD		4.284	2.111	38.360	8.142	1.145	1.044	4.256	4.704
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:37:28	0.060	0.053	1.816	1.612	1.713	39.976%		
2	18:37:47	0.060	0.046	1.786	1.608	1.681	41.605%		
3	18:38:06	0.061	0.051	1.842	1.527	1.683	42.613%		
X		0.061	0.050	1.815	1.582	1.692	41.398%		
σ		0.001	0.003	0.028	0.048	0.018	1.331%		
%RSD		1.009	6.899	1.544	3.017	1.076	3.214		

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11/4/2014 6:40:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	69.334%	9.030	287.600	276.300	0.000	1841.000	34560.000	34670.000
2	18:41:19	69.362%	9.013	252.000	241.000	0.000	1787.000	33770.000	34050.000
3	18:41:38	67.175%	8.628	225.500	221.100	0.000	1793.000	33930.000	34010.000
X		68.623%	8.890	255.100	246.100	0.000	1807.000	34090.000	34240.000
σ		1.255%	0.227	31.160	27.980	0.000	29.430	418.900	369.200
%RSD		1.828	2.556	12.220	11.370	0.000	1.629	1.229	1.078
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	69070.000	3452.000	0.000	7031.000	12540.000	12290.000	71.426%	2095.000
2	18:41:19	67940.000	3366.000	0.000	6965.000	12610.000	12280.000	70.249%	2091.000
3	18:41:38	67810.000	3347.000	0.000	6954.000	12710.000	12310.000	68.822%	2097.000
X		68270.000	3388.000	0.000	6983.000	12620.000	12290.000	70.166%	2094.000
σ		691.600	55.830	0.000	41.770	83.720	15.900	1.304%	3.087
%RSD		1.013	1.648	0.000	0.598	0.663	0.129	1.858	0.147
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	198.600	214.500	11010.000	213200.000	220500.000	171.400	258.000	118.000
2	18:41:19	197.500	212.500	10960.000	212600.000	220000.000	170.200	257.200	116.900
3	18:41:38	194.900	209.200	11000.000	211500.000	218200.000	168.800	252.000	116.800
X		197.000	212.000	10990.000	212400.000	219600.000	170.200	255.700	117.200
σ		1.887	2.682	26.280	855.600	1196.000	1.274	3.272	0.670
%RSD		0.958	1.265	0.239	0.403	0.545	0.749	1.279	0.572
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	120.700	504.500	518.000	14.420	1.993	5.284	0.000	98.340
2	18:41:19	118.100	505.300	519.500	14.830	2.000	5.016	0.000	99.050
3	18:41:38	118.000	509.800	514.600	15.840	2.310	6.040	0.000	99.530
X		118.900	506.500	517.400	15.030	2.101	5.446	0.000	98.970
σ		1.526	2.842	2.532	0.729	0.181	0.531	0.000	0.601
%RSD		1.283	0.561	0.489	4.851	8.600	9.749	0.000	0.607
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	0.000	8.311	8.202	64.710%	0.007	-0.003	1.407	1.000
2	18:41:19	0.000	8.181	8.146	65.711%	0.024	-0.005	1.188	1.007
3	18:41:38	0.000	7.933	8.011	65.051%	0.001	-0.018	1.238	0.992
X		0.000	8.142	8.120	65.157%	0.011	-0.008	1.277	1.000
σ		0.000	0.192	0.098	0.509%	0.012	0.008	0.114	0.008
%RSD		0.000	2.356	1.210	0.781	111.400	99.150	8.955	0.775
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:40:59	74.898%	8.938	2.528	2.492	1923.000	1920.000	94.374%	93.835%
2	18:41:19	74.896%	9.190	2.550	2.507	1946.000	1958.000	96.376%	96.931%
3	18:41:38	75.644%	9.093	2.508	2.665	1951.000	1952.000	96.966%	96.808%
X		75.146%	9.074	2.529	2.555	1940.000	1944.000	95.905%	95.858%
σ		0.431%	0.127	0.021	0.096	15.100	20.310	1.358%	1.753%
%RSD		0.574	1.399	0.833	3.762	0.779	1.045	1.416	1.829
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:40:59	0.836	0.792	175.100	163.300	170.700	64.327%		
2	18:41:19	0.829	0.814	178.000	164.600	171.800	66.253%		
3	18:41:38	0.859	0.852	179.200	166.800	174.000	66.285%		
X		0.841	0.820	177.400	164.900	172.100	65.622%		
σ		0.016	0.030	2.111	1.789	1.685	1.121%		
%RSD		1.865	3.671	1.190	1.085	0.979	1.709		

180-37777-A-2-A

11/4/2014 6:44:13 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	57.347%	15.210	217.400	205.300	0.000	1506.000	65460.000	65780.000
2	18:44:57	57.092%	15.970	205.200	193.300	0.000	1498.000	65250.000	65410.000
3	18:45:16	56.257%	16.390	203.300	196.300	0.000	1492.000	64740.000	65320.000
X		56.899%	15.860	208.600	198.300	0.000	1499.000	65150.000	65500.000
σ		0.570%	0.596	7.661	6.221	0.000	7.127	372.900	241.600
%RSD		1.001	3.760	3.672	3.137	0.000	0.476	0.572	0.369
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	113700.000	3493.000	0.000	16860.000	26480.000	25550.000	61.734%	2241.000
2	18:44:57	113000.000	3434.000	0.000	16870.000	26070.000	25560.000	60.387%	2245.000
3	18:45:16	112800.000	3377.000	0.000	16790.000	26120.000	25670.000	60.143%	2256.000
X		113100.000	3435.000	0.000	16840.000	26220.000	25590.000	60.754%	2247.000
σ		472.200	57.750	0.000	40.500	224.600	65.280	0.857%	7.670
%RSD		0.417	1.681	0.000	0.240	0.857	0.255	1.411	0.341
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	434.900	294.100	3017.000	423100.000	454000.000	165.200	331.500	364.400
2	18:44:57	438.200	295.300	3002.000	417500.000	448000.000	163.200	328.700	365.400
3	18:45:16	437.500	296.500	3021.000	419200.000	449900.000	163.700	327.500	364.000
X		436.900	295.300	3013.000	420000.000	450700.000	164.000	329.200	364.600
σ		1.761	1.204	9.695	2858.000	3052.000	1.040	2.089	0.719
%RSD		0.403	0.408	0.322	0.680	0.677	0.634	0.635	0.197
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	369.000	786.900	802.500	20.820	1.048	3.742	0.000	171.200
2	18:44:57	369.200	788.700	797.600	22.420	1.391	4.192	0.000	174.100
3	18:45:16	365.200	801.700	811.300	22.510	1.247	4.008	0.000	175.500
X		367.800	792.400	803.800	21.920	1.229	3.980	0.000	173.600
σ		2.260	8.081	6.923	0.950	0.172	0.226	0.000	2.189
%RSD		0.615	1.020	0.861	4.335	14.000	5.682	0.000	1.261
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	0.000	5.475	5.774	58.380%	-0.132	-0.190	1.296	0.912
2	18:44:57	0.000	5.436	5.965	58.857%	-0.113	-0.191	1.247	0.948
3	18:45:16	0.000	5.635	5.675	58.749%	-0.134	-0.176	1.213	0.832
X		0.000	5.516	5.805	58.662%	-0.126	-0.186	1.252	0.897
σ		0.000	0.105	0.147	0.250%	0.012	0.008	0.042	0.059
%RSD		0.000	1.911	2.538	0.426	9.301	4.516	3.326	6.570
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:35	68.745%	12.330	5.123	5.331	1074.000	1072.000	85.606%	84.077%
2	18:44:57	70.542%	12.470	5.575	5.514	1075.000	1077.000	88.376%	86.563%
3	18:45:16	71.822%	12.540	5.466	5.423	1070.000	1069.000	89.600%	87.672%
X		70.370%	12.450	5.388	5.423	1073.000	1073.000	87.861%	86.104%
σ		1.546%	0.106	0.236	0.092	2.969	3.954	2.046%	1.841%
%RSD		2.197	0.851	4.382	1.688	0.277	0.369	2.329	2.138
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:44:35	1.345	1.409	304.600	283.800	295.400	60.286%		
2	18:44:57	1.490	1.395	309.500	289.900	300.500	61.550%		
3	18:45:16	1.441	1.482	306.500	289.300	299.400	63.030%		
X		1.425	1.428	306.800	287.700	298.400	61.622%		
σ		0.074	0.047	2.467	3.352	2.698	1.373%		
%RSD		5.200	3.257	0.804	1.165	0.904	2.229		

180-37777-A-3-A

11/4/2014 6:47:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	59.198%	12.540	159.100	153.400	0.000	1847.000	45640.000	46120.000
2	18:48:30	58.144%	13.090	157.900	153.500	0.000	1860.000	46140.000	46390.000
3	18:48:50	58.469%	13.500	158.800	149.900	0.000	1845.000	45930.000	46030.000
X		58.604%	13.040	158.600	152.300	0.000	1851.000	45900.000	46180.000
σ		0.540%	0.484	0.611	2.053	0.000	7.918	254.100	187.400
%RSD		0.921	3.713	0.385	1.349	0.000	0.428	0.554	0.406
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	100000.000	3506.000	0.000	11550.000	13020.000	12680.000	61.421%	1750.000
2	18:48:30	100400.000	3520.000	0.000	11660.000	13350.000	12750.000	61.371%	1752.000
3	18:48:50	99610.000	3457.000	0.000	11390.000	13080.000	12700.000	60.917%	1741.000
X		100000.000	3494.000	0.000	11530.000	13150.000	12710.000	61.236%	1748.000
σ		400.800	33.060	0.000	135.400	174.500	33.880	0.278%	5.866
%RSD		0.401	0.946	0.000	1.174	1.327	0.267	0.454	0.336
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	221.600	270.900	9360.000	356700.000	378700.000	283.300	254.600	119.800
2	18:48:30	222.200	270.700	9315.000	356500.000	380000.000	285.200	257.300	121.000
3	18:48:50	220.300	268.900	9336.000	354500.000	376900.000	282.400	253.100	119.300
X		221.400	270.100	9337.000	355900.000	378600.000	283.600	255.000	120.000
σ		0.937	1.087	22.120	1234.000	1557.000	1.435	2.130	0.839
%RSD		0.423	0.402	0.237	0.347	0.411	0.506	0.835	0.699
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	123.400	596.300	609.200	27.900	1.604	5.987	0.000	164.100
2	18:48:30	121.800	603.300	615.300	29.070	1.802	5.300	0.000	165.600
3	18:48:50	119.800	597.800	607.700	28.560	1.867	5.006	0.000	167.200
X		121.600	599.100	610.700	28.510	1.758	5.431	0.000	165.600
σ		1.804	3.686	4.011	0.588	0.137	0.504	0.000	1.532
%RSD		1.483	0.615	0.657	2.062	7.785	9.273	0.000	0.925
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	0.000	7.966	7.863	60.303%	-0.143	-0.173	1.114	0.883
2	18:48:30	0.000	8.155	8.057	60.871%	-0.134	-0.185	1.023	0.773
3	18:48:50	0.000	8.044	8.054	61.306%	-0.138	-0.164	1.146	0.764
X		0.000	8.055	7.991	60.827%	-0.138	-0.174	1.094	0.807
σ		0.000	0.095	0.111	0.503%	0.005	0.011	0.064	0.066
%RSD		0.000	1.183	1.387	0.827	3.344	6.129	5.852	8.172
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:48:11	71.403%	43.680	5.001	5.158	1146.000	1145.000	93.450%	91.372%
2	18:48:30	73.342%	42.960	4.983	4.907	1133.000	1139.000	96.619%	93.527%
3	18:48:50	73.805%	43.870	5.051	5.232	1148.000	1139.000	97.039%	95.787%
X		72.850%	43.500	5.012	5.099	1142.000	1141.000	95.703%	93.562%
σ		1.275%	0.480	0.036	0.170	8.192	3.432	1.962%	2.208%
%RSD		1.749	1.103	0.709	3.342	0.717	0.301	2.050	2.360
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:48:11	1.355	1.338	311.800	287.400	302.400	63.967%		
2	18:48:30	1.395	1.394	312.900	294.900	305.400	65.094%		
3	18:48:50	1.337	1.376	313.100	292.500	305.100	66.024%		
X		1.362	1.369	312.600	291.600	304.300	65.028%		
σ		0.030	0.029	0.675	3.858	1.625	1.030%		
%RSD		2.186	2.110	0.216	1.323	0.534	1.584		

180-37777-A-4-A

11/4/2014 6:51:25 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	60.581%	9.982	117.900	116.500	0.000	1903.000	36130.000	36320.000
2	18:52:03	60.044%	10.860	120.000	115.500	0.000	1865.000	35220.000	35220.000
3	18:52:22	59.480%	10.270	120.400	114.100	0.000	1897.000	36110.000	36320.000
X		60.035%	10.370	119.500	115.400	0.000	1888.000	35820.000	35950.000
σ		0.551%	0.450	1.328	1.216	0.000	20.130	520.700	633.500
%RSD		0.917	4.342	1.112	1.054	0.000	1.066	1.453	1.762
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	92900.000	4155.000	0.000	7684.000	47490.000	47160.000	61.532%	2233.000
2	18:52:03	90190.000	4031.000	0.000	7474.000	45860.000	45740.000	63.174%	2177.000
3	18:52:22	92730.000	4085.000	0.000	7616.000	47520.000	47390.000	60.449%	2251.000
X		91940.000	4090.000	0.000	7591.000	46960.000	46760.000	61.718%	2220.000
σ		1518.000	62.050	0.000	107.300	952.800	893.100	1.372%	38.780
%RSD		1.651	1.517	0.000	1.414	2.029	1.910	2.223	1.746
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	202.600	202.100	2763.000	283900.000	297800.000	121.400	215.400	75.790
2	18:52:03	196.000	194.000	2679.000	275200.000	290400.000	118.100	207.100	73.630
3	18:52:22	198.200	197.900	2744.000	283600.000	297500.000	120.800	211.800	75.370
X		198.900	198.000	2729.000	280900.000	295200.000	120.100	211.400	74.930
σ		3.394	4.047	44.350	4918.000	4171.000	1.746	4.153	1.146
%RSD		1.706	2.043	1.625	1.751	1.413	1.454	1.964	1.529
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	76.830	488.100	498.100	32.180	1.519	3.844	0.000	390.900
2	18:52:03	74.540	480.400	486.000	31.830	1.269	3.132	0.000	392.400
3	18:52:22	76.680	493.500	501.500	32.680	1.434	3.393	0.000	397.400
X		76.020	487.300	495.200	32.230	1.407	3.456	0.000	393.600
σ		1.282	6.595	8.136	0.426	0.127	0.360	0.000	3.381
%RSD		1.687	1.353	1.643	1.322	9.017	10.420	0.000	0.859
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	0.000	5.081	5.096	61.300%	0.191	0.122	1.151	0.917
2	18:52:03	0.000	4.991	5.091	61.960%	0.192	0.093	1.064	0.890
3	18:52:22	0.000	5.129	5.354	61.863%	0.155	0.142	1.159	0.875
X		0.000	5.067	5.180	61.708%	0.179	0.119	1.125	0.894
σ		0.000	0.070	0.150	0.356%	0.021	0.025	0.053	0.021
%RSD		0.000	1.375	2.896	0.577	11.980	20.750	4.673	2.376
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:51:44	72.543%	11.610	3.507	3.504	745.000	740.300	87.369%	87.082%
2	18:52:03	74.569%	11.670	3.600	3.691	749.300	745.600	89.246%	89.818%
3	18:52:22	74.940%	11.940	3.541	3.636	742.300	743.200	90.665%	91.263%
X		74.017%	11.740	3.549	3.610	745.500	743.000	89.093%	89.388%
σ		1.290%	0.173	0.047	0.096	3.550	2.651	1.653%	2.124%
%RSD		1.743	1.477	1.332	2.664	0.476	0.357	1.856	2.376
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:51:44	1.019	1.043	206.600	192.800	200.400	66.028%		
2	18:52:03	1.060	1.056	208.500	194.300	202.900	66.958%		
3	18:52:22	1.044	1.046	206.100	194.600	202.800	68.533%		
X		1.041	1.048	207.100	193.900	202.000	67.173%		
σ		0.021	0.007	1.259	0.974	1.395	1.266%		
%RSD		1.990	0.651	0.608	0.502	0.690	1.885		

180-37777-A-5-A

11/4/2014 6:54:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	61.686%	10.390	136.100	132.700	0.000	1624.000	45400.000	45200.000
2	18:55:19	61.984%	10.330	138.100	126.000	0.000	1588.000	44430.000	44490.000
3	18:55:39	61.178%	10.280	128.600	128.900	0.000	1594.000	44180.000	44670.000
X		61.616%	10.330	134.300	129.200	0.000	1602.000	44670.000	44780.000
σ		0.408%	0.057	5.034	3.343	0.000	19.070	646.100	371.500
%RSD		0.662	0.547	3.749	2.588	0.000	1.190	1.446	0.830
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	80450.000	3903.000	0.000	9159.000	13640.000	13130.000	63.037%	2942.000
2	18:55:19	79270.000	3831.000	0.000	9033.000	13500.000	13240.000	63.286%	2951.000
3	18:55:39	78790.000	3769.000	0.000	9023.000	13850.000	13290.000	62.896%	2935.000
X		79500.000	3835.000	0.000	9071.000	13660.000	13220.000	63.073%	2943.000
σ		853.500	66.960	0.000	75.710	178.600	81.130	0.197%	7.987
%RSD		1.074	1.746	0.000	0.835	1.307	0.614	0.313	0.271
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	228.500	252.000	5833.000	266500.000	278400.000	160.800	247.300	88.500
2	18:55:19	225.300	251.600	5815.000	265200.000	277000.000	161.400	247.000	88.820
3	18:55:39	226.000	251.400	5791.000	263900.000	276700.000	159.800	246.100	88.700
X		226.600	251.700	5813.000	265200.000	277400.000	160.700	246.800	88.680
σ		1.649	0.312	20.750	1296.000	915.800	0.834	0.656	0.160
%RSD		0.728	0.124	0.357	0.489	0.330	0.519	0.266	0.180
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	89.580	522.200	529.800	16.130	1.083	3.108	0.000	99.430
2	18:55:19	91.420	523.700	538.500	18.740	1.524	5.056	0.000	99.560
3	18:55:39	89.090	521.900	533.500	17.610	1.155	3.629	0.000	100.600
X		90.030	522.600	533.900	17.490	1.254	3.931	0.000	99.860
σ		1.231	0.969	4.328	1.305	0.237	1.009	0.000	0.642
%RSD		1.367	0.185	0.811	7.464	18.860	25.660	0.000	0.643
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	0.000	4.448	4.447	61.621%	-0.121	-0.190	1.367	0.987
2	18:55:19	0.000	4.340	4.556	62.405%	-0.123	-0.195	1.245	0.986
3	18:55:39	0.000	4.320	4.584	62.602%	-0.113	-0.197	1.073	0.867
X		0.000	4.369	4.529	62.209%	-0.119	-0.194	1.228	0.947
σ		0.000	0.069	0.072	0.519%	0.005	0.004	0.147	0.069
%RSD		0.000	1.581	1.594	0.835	4.446	1.910	12.010	7.298
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:55:00	72.064%	9.778	3.128	3.174	992.400	984.100	92.310%	89.767%
2	18:55:19	73.390%	9.693	3.165	3.092	990.800	990.200	95.154%	93.406%
3	18:55:39	74.272%	9.558	3.154	3.223	983.400	971.500	95.832%	94.836%
X		73.242%	9.676	3.149	3.163	988.900	982.000	94.432%	92.670%
σ		1.112%	0.111	0.019	0.066	4.792	9.515	1.869%	2.613%
%RSD		1.518	1.146	0.599	2.094	0.485	0.969	1.979	2.820
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:55:00	0.949	0.884	191.700	180.300	187.400	64.921%		
2	18:55:19	0.891	0.941	196.100	183.100	190.300	65.682%		
3	18:55:39	0.894	0.896	197.500	183.500	191.700	66.714%		
X		0.911	0.907	195.100	182.300	189.800	65.772%		
σ		0.033	0.030	3.013	1.745	2.182	0.900%		
%RSD		3.615	3.295	1.544	0.957	1.149	1.368		



CCV 1369903 11/4/2014 6:58:22 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	60.061%	100.100	138.500	139.400	0.000	50400.000	49260.000	49070.000
2	18:58:41	58.467%	101.800	141.300	138.700	0.000	51350.000	49790.000	49890.000
3	18:59:01	58.235%	97.030	136.000	136.400	0.000	50590.000	49050.000	49130.000
x		58.921%	99.633%	138.596%	138.174%	0.000	101.560%	98.736%	98.723%
σ		0.994%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.687	2.414	1.908	1.137	0.000	0.991	0.766	0.927
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	525.500	4845.000	0.000	50740.000	50670.000	50370.000	63.971%	103.100
2	18:58:41	530.300	4914.000	0.000	51000.000	51700.000	50900.000	62.565%	104.800
3	18:59:01	519.100	4786.000	0.000	50770.000	51330.000	51130.000	61.422%	103.700
x		105.000%	96.969%	0.000	101.670%	102.463%	101.603%	62.652%	103.851%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.277%	n/a
%RSD		1.072	1.319	0.000	0.275	1.021	0.763	2.038	0.810
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	98.820	98.220	497.400	24890.000	24820.000	99.980	100.900	100.600
2	18:58:41	98.310	98.670	498.400	24930.000	24890.000	98.370	99.990	101.000
3	18:59:01	98.170	98.980	499.400	25030.000	24830.000	99.410	99.240	101.000
x		98.435%	98.625%	99.677%	99.805%	99.386%	99.251%	100.030%	100.834%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.348	0.386	0.203	0.302	0.136	0.823	0.810	0.228
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	101.100	106.100	106.000	100.500	103.700	101.700	0.000	101.400
2	18:58:41	101.100	108.500	109.500	100.800	102.200	103.100	0.000	101.400
3	18:59:01	101.000	106.200	106.500	101.500	104.000	105.100	0.000	101.700
x		101.063%	106.916%	107.344%	100.938%	103.269%	103.300%	0.000	101.491%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.044	1.286	1.762	0.492	0.943	1.683	0.000	0.181
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	68.785%	93.280	96.240	63.400%	100.900	100.800	103.300	101.100
2	18:58:41	69.666%	98.450	101.400	63.586%	101.800	100.900	103.400	101.800
3	18:59:01	69.656%	102.500	106.200	63.591%	101.600	101.400	104.700	102.500
x		69.369%	98.090%	101.273%	63.526%	101.442%	101.029%	103.803%	101.778%
σ		0.506%	n/a	n/a	0.109%	n/a	n/a	n/a	n/a
%RSD		0.729	4.729	4.920	0.171	0.446	0.299	0.756	0.688
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:58:22	71.710%	100.500	100.500	100.600	100.100	101.800	77.537%	77.764%
2	18:58:41	73.255%	100.100	99.580	99.400	98.500	98.970	79.406%	79.579%
3	18:59:01	72.492%	101.700	101.900	101.600	101.400	99.830	80.487%	80.573%
x		72.486%	100.743%	100.652%	100.502%	99.977%	100.201%	79.143%	79.305%
σ		0.772%	n/a	n/a	n/a	n/a	n/a	1.493%	1.424%
%RSD		1.066	0.810	1.148	1.073	1.436	1.454	1.886	1.796
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:58:22	101.700	102.800	103.700	103.700	103.800	72.432%		
2	18:58:41	105.300	106.500	106.000	107.200	107.000	72.867%		
3	18:59:01	106.000	107.100	106.900	107.600	108.000	73.336%		
x		104.325%	105.439%	105.506%	106.144%	106.268%	72.878%		
σ		n/a	n/a	n/a	n/a	n/a	0.452%		
%RSD		2.236	2.218	1.546	2.010	2.034	0.620		

CCB7 11/4/2014 7:04:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	78.065%	0.007	33.710	33.340	0.000	19.560	2.640	2.886
2	19:04:57	76.999%	-0.003	31.160	32.280	0.000	19.520	3.032	2.844
3	19:05:16	77.993%	0.007	33.260	32.540	0.000	19.580	2.968	2.749
X		77.686%	0.004	32.710	32.720	0.000	19.550	2.880	2.826
σ		0.596%	0.006	1.361	0.553	0.000	0.032	0.211	0.070
%RSD		0.767	158.700	4.162	1.690	0.000	0.162	7.311	2.478
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	5.612	10.690	0.000	-3.699	40.440	33.250	88.305%	0.020
2	19:04:57	5.612	10.360	0.000	-3.721	46.930	35.560	87.900%	0.188
3	19:05:16	5.631	10.430	0.000	-3.232	38.320	35.580	87.500%	0.125
X		5.618	10.490	0.000	-3.551	41.890	34.800	87.901%	0.111
σ		0.011	0.178	0.000	0.276	4.485	1.338	0.402%	0.085
%RSD		0.193	1.698	0.000	7.770	10.710	3.844	0.458	76.340
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	0.000	0.043	0.136	10.250	9.330	0.004	0.098	0.109
2	19:04:57	0.008	0.083	0.124	9.620	10.770	0.002	0.074	0.089
3	19:05:16	0.052	0.072	0.135	7.735	7.692	0.001	0.111	0.068
X		0.020	0.066	0.132	9.201	9.263	0.002	0.094	0.089
σ		0.028	0.021	0.007	1.308	1.539	0.001	0.019	0.021
%RSD		139.500	31.540	4.969	14.220	16.610	57.510	19.780	23.260
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	-0.007	1.825	1.681	0.073	0.296	0.277	0.000	0.094
2	19:04:57	-0.023	1.781	1.946	-0.358	-0.049	-1.415	0.000	0.077
3	19:05:16	-0.019	1.896	2.187	-0.376	0.369	-1.449	0.000	0.086
X		-0.016	1.834	1.938	-0.220	0.205	-0.862	0.000	0.086
σ		0.008	0.058	0.253	0.254	0.224	0.987	0.000	0.009
%RSD		49.210	3.170	13.070	115.500	108.900	114.400	0.000	10.100
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	83.610%	0.207	0.196	78.460%	-0.321	-0.299	-0.019	-0.024
2	19:04:57	84.680%	0.155	0.150	79.284%	-0.307	-0.298	-0.021	-0.019
3	19:05:16	86.420%	0.080	0.136	79.655%	-0.316	-0.300	-0.049	-0.032
X		84.903%	0.147	0.161	79.133%	-0.315	-0.299	-0.030	-0.025
σ		1.418%	0.064	0.031	0.612%	0.007	0.001	0.016	0.007
%RSD		1.670	43.250	19.440	0.773	2.143	0.322	55.090	26.650
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:04:37	81.613%	-0.507	0.040	0.032	0.014	0.019	82.322%	82.477%
2	19:04:57	83.960%	-0.491	0.013	0.001	0.059	0.022	85.731%	85.546%
3	19:05:16	85.680%	-0.507	0.009	-0.004	0.064	0.051	86.216%	86.072%
X		83.751%	-0.502	0.021	0.010	0.046	0.031	84.757%	84.699%
σ		2.042%	0.010	0.017	0.019	0.027	0.017	2.122%	1.942%
%RSD		2.438	1.940	80.010	196.200	59.510	56.580	2.504	2.293
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:04:37	-0.001	0.004	0.155	0.145	0.157	86.127%		
2	19:04:57	0.003	0.001	0.172	0.159	0.164	86.886%		
3	19:05:16	0.007	0.004	0.158	0.161	0.160	87.889%		
X		0.003	0.003	0.162	0.155	0.160	86.968%		
σ		0.004	0.002	0.009	0.009	0.003	0.884%		
%RSD		128.600	59.510	5.822	5.666	2.134	1.016		

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11/4/2014 7:07:54 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	57.009%	14.100	142.200	139.100	0.000	1694.000	61820.000	62320.000
2	19:08:32	57.151%	14.270	141.900	133.300	0.000	1667.000	61360.000	61740.000
3	19:08:51	56.298%	14.030	144.200	138.400	0.000	1711.000	61420.000	61700.000
X		56.819%	14.130	142.800	136.900	0.000	1690.000	61530.000	61920.000
σ		0.457%	0.124	1.224	3.150	0.000	22.090	251.200	348.100
%RSD		0.804	0.879	0.857	2.300	0.000	1.307	0.408	0.562
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	110900.000	3847.000	0.000	16930.000	23650.000	23420.000	59.463%	1881.000
2	19:08:32	109700.000	3770.000	0.000	16850.000	24020.000	23460.000	59.947%	1865.000
3	19:08:51	109000.000	3749.000	0.000	16730.000	23930.000	23250.000	59.456%	1866.000
X		109800.000	3789.000	0.000	16840.000	23870.000	23380.000	59.622%	1871.000
σ		971.900	51.730	0.000	97.510	195.800	109.400	0.281%	9.037
%RSD		0.885	1.365	0.000	0.579	0.820	0.468	0.472	0.483
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	519.400	281.900	6861.000	376700.000	398700.000	160.400	332.800	411.400
2	19:08:32	514.100	279.000	6763.000	369500.000	392100.000	158.500	329.400	406.200
3	19:08:51	514.300	278.900	6771.000	367500.000	390900.000	157.700	328.300	406.300
X		515.900	280.000	6798.000	371200.000	393900.000	158.900	330.200	408.000
σ		3.026	1.711	54.630	4820.000	4231.000	1.378	2.349	2.973
%RSD		0.587	0.611	0.804	1.298	1.074	0.868	0.712	0.729
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	416.700	762.400	785.000	14.070	1.000	3.182	0.000	158.800
2	19:08:32	411.900	753.000	780.000	15.140	0.931	3.987	0.000	159.400
3	19:08:51	409.700	767.900	778.700	14.090	0.412	4.435	0.000	160.500
X		412.700	761.100	781.200	14.430	0.781	3.868	0.000	159.600
σ		3.592	7.566	3.366	0.610	0.322	0.635	0.000	0.880
%RSD		0.870	0.994	0.431	4.226	41.190	16.420	0.000	0.552
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	0.000	4.259	4.294	58.973%	-0.172	-0.229	0.960	0.797
2	19:08:32	0.000	4.307	4.244	59.742%	-0.194	-0.222	0.922	0.799
3	19:08:51	0.000	4.113	4.390	59.718%	-0.173	-0.197	0.825	0.693
X		0.000	4.227	4.310	59.477%	-0.180	-0.216	0.902	0.763
σ		0.000	0.101	0.074	0.437%	0.012	0.017	0.069	0.061
%RSD		0.000	2.387	1.727	0.735	6.785	7.896	7.699	7.985
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:13	70.044%	10.830	3.987	3.809	1945.000	1943.000	87.066%	85.299%
2	19:08:32	71.511%	10.920	3.905	3.804	1933.000	1945.000	89.898%	88.164%
3	19:08:51	71.869%	10.750	3.923	3.895	1938.000	1944.000	90.693%	89.782%
X		71.141%	10.830	3.938	3.836	1939.000	1944.000	89.219%	87.748%
σ		0.967%	0.085	0.043	0.051	6.196	1.002	1.906%	2.270%
%RSD		1.360	0.784	1.101	1.339	0.320	0.052	2.137	2.587
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:08:13	1.413	1.478	239.200	222.000	232.500	63.112%		
2	19:08:32	1.474	1.504	243.300	226.800	236.300	63.744%		
3	19:08:51	1.477	1.524	247.600	229.700	240.200	64.085%		
X		1.455	1.502	243.400	226.100	236.300	63.647%		
σ		0.036	0.023	4.202	3.915	3.839	0.494%		
%RSD		2.483	1.542	1.727	1.731	1.625	0.776		

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11/4/2014 7:11:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	61.061%	12.510	108.200	104.800	0.000	1071.000	49580.000	49670.000
2	19:12:05	59.885%	12.940	109.500	105.700	0.000	1087.000	49880.000	49940.000
3	19:12:24	60.074%	12.740	106.500	104.000	0.000	1072.000	49390.000	49350.000
X		60.340%	12.730	108.100	104.800	0.000	1077.000	49620.000	49650.000
σ		0.632%	0.215	1.471	0.878	0.000	8.769	250.300	299.200
%RSD		1.047	1.688	1.361	0.838	0.000	0.815	0.504	0.603
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	114000.000	3869.000	0.000	11880.000	12850.000	12720.000	63.063%	1659.000
2	19:12:05	116000.000	3875.000	0.000	11930.000	13220.000	12690.000	62.836%	1660.000
3	19:12:24	112500.000	3821.000	0.000	11870.000	12960.000	12560.000	63.246%	1637.000
X		114200.000	3855.000	0.000	11890.000	13010.000	12660.000	63.048%	1652.000
σ		1746.000	29.350	0.000	34.300	188.000	85.040	0.205%	13.250
%RSD		1.529	0.761	0.000	0.288	1.445	0.672	0.326	0.802
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	422.800	252.800	6636.000	333400.000	351400.000	309.800	282.200	338.700
2	19:12:05	425.600	250.000	6597.000	330100.000	349800.000	310.100	282.500	340.500
3	19:12:24	421.200	249.100	6547.000	326000.000	344400.000	306.600	276.100	335.000
X		423.200	250.600	6593.000	329800.000	348500.000	308.800	280.300	338.100
σ		2.216	1.941	44.520	3708.000	3653.000	1.945	3.601	2.831
%RSD		0.524	0.774	0.675	1.124	1.048	0.630	1.285	0.837
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	342.700	620.100	637.500	14.720	1.473	4.392	0.000	151.600
2	19:12:05	340.600	630.000	644.200	13.030	1.913	4.783	0.000	152.300
3	19:12:24	338.900	625.100	643.400	14.060	1.825	4.022	0.000	153.300
X		340.700	625.100	641.700	13.940	1.737	4.399	0.000	152.400
σ		1.886	4.928	3.656	0.854	0.233	0.380	0.000	0.830
%RSD		0.554	0.788	0.570	6.125	13.410	8.649	0.000	0.545
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	0.000	3.103	3.161	61.169%	-0.181	-0.198	0.801	0.616
2	19:12:05	0.000	3.223	3.130	61.732%	-0.146	-0.215	0.734	0.548
3	19:12:24	0.000	2.990	3.219	61.963%	-0.162	-0.187	0.813	0.577
X		0.000	3.106	3.170	61.622%	-0.163	-0.200	0.782	0.580
σ		0.000	0.116	0.045	0.409%	0.017	0.014	0.043	0.034
%RSD		0.000	3.746	1.420	0.663	10.650	7.150	5.481	5.903
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:11:46	72.221%	8.902	1.616	1.726	1100.000	1107.000	92.296%	90.558%
2	19:12:05	74.330%	8.588	1.695	1.675	1101.000	1110.000	93.965%	93.041%
3	19:12:24	74.277%	8.872	1.790	1.682	1109.000	1107.000	95.937%	93.288%
X		73.609%	8.787	1.700	1.695	1104.000	1108.000	94.066%	92.295%
σ		1.203%	0.173	0.087	0.028	5.073	1.947	1.822%	1.510%
%RSD		1.634	1.970	5.136	1.623	0.460	0.176	1.937	1.636
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:11:46	1.427	1.433	129.500	119.200	125.400	64.407%		
2	19:12:05	1.441	1.432	131.200	120.700	127.000	65.742%		
3	19:12:24	1.502	1.439	133.400	121.800	128.800	66.184%		
X		1.457	1.435	131.300	120.600	127.100	65.444%		
σ		0.040	0.004	1.946	1.310	1.721	0.925%		
%RSD		2.753	0.265	1.482	1.087	1.354	1.414		

180-37777-A-9-B

11/4/2014 7:14:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	59.837%	14.320	108.500	103.400	0.000	930.500	44950.000	45080.000
2	19:15:36	60.898%	12.660	107.800	101.100	0.000	925.800	44560.000	44550.000
3	19:15:56	60.142%	13.740	102.800	99.850	0.000	918.400	43940.000	44100.000
X		60.292%	13.570	106.400	101.400	0.000	924.900	44480.000	44580.000
σ		0.546%	0.844	3.129	1.807	0.000	6.083	506.300	490.400
%RSD		0.905	6.216	2.940	1.781	0.000	0.658	1.138	1.100
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	101800.000	3185.000	0.000	11300.000	12290.000	11960.000	63.848%	1786.000
2	19:15:36	100700.000	3147.000	0.000	11250.000	12070.000	12050.000	64.495%	1789.000
3	19:15:56	99690.000	3110.000	0.000	11320.000	12710.000	12110.000	63.391%	1787.000
X		100700.000	3147.000	0.000	11290.000	12360.000	12040.000	63.911%	1787.000
σ		1035.000	37.070	0.000	38.480	327.200	74.730	0.555%	1.412
%RSD		1.028	1.178	0.000	0.341	2.648	0.621	0.868	0.079
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	424.600	232.900	3497.000	323800.000	341700.000	230.600	264.600	361.800
2	19:15:36	417.600	231.600	3477.000	321200.000	337800.000	229.800	261.100	356.800
3	19:15:56	417.300	230.300	3494.000	321700.000	338700.000	230.600	264.000	356.300
X		419.800	231.600	3489.000	322200.000	339400.000	230.300	263.200	358.300
σ		4.108	1.276	10.780	1341.000	2048.000	0.475	1.859	3.037
%RSD		0.979	0.551	0.309	0.416	0.604	0.206	0.706	0.848
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	361.100	576.100	583.700	14.140	1.307	3.164	0.000	163.000
2	19:15:36	360.800	570.500	586.700	13.640	1.389	3.480	0.000	163.400
3	19:15:56	355.800	576.200	587.400	14.380	1.281	3.943	0.000	163.700
X		359.200	574.300	585.900	14.050	1.326	3.529	0.000	163.300
σ		2.949	3.243	1.972	0.378	0.057	0.392	0.000	0.356
%RSD		0.821	0.565	0.337	2.687	4.273	11.110	0.000	0.218
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	0.000	4.399	4.727	60.792%	-0.187	-0.238	1.031	0.821
2	19:15:36	0.000	4.374	4.632	61.677%	-0.195	-0.221	0.970	0.877
3	19:15:56	0.000	4.339	4.667	62.158%	-0.192	-0.209	1.006	0.735
X		0.000	4.371	4.675	61.542%	-0.191	-0.223	1.002	0.811
σ		0.000	0.030	0.049	0.693%	0.004	0.014	0.030	0.072
%RSD		0.000	0.687	1.038	1.127	2.065	6.366	3.034	8.836
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:15:17	72.035%	7.831	1.952	1.922	885.100	887.300	87.559%	86.987%
2	19:15:36	73.901%	8.047	1.935	1.922	882.300	881.100	90.377%	90.495%
3	19:15:56	74.357%	8.250	2.008	2.032	885.600	884.100	91.262%	90.528%
X		73.431%	8.043	1.965	1.958	884.300	884.200	89.732%	89.337%
σ		1.230%	0.209	0.038	0.064	1.755	3.128	1.934%	2.035%
%RSD		1.675	2.601	1.928	3.244	0.198	0.354	2.155	2.278
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:15:17	1.330	1.364	131.600	122.500	127.800	63.609%		
2	19:15:36	1.393	1.384	134.500	123.500	129.500	65.237%		
3	19:15:56	1.360	1.380	134.800	124.600	130.300	65.529%		
X		1.361	1.376	133.600	123.500	129.200	64.792%		
σ		0.032	0.011	1.781	1.092	1.310	1.035%		
%RSD		2.315	0.793	1.333	0.884	1.014	1.597		

180-37716-A-1-B

11/4/2014 7:18:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	60.088%	13.400	141.400	137.900	0.000	1490.000	61900.000	62420.000
2	19:19:07	60.045%	13.080	142.400	136.100	0.000	1480.000	60990.000	61490.000
3	19:19:27	60.054%	12.460	138.700	133.000	0.000	1480.000	61470.000	61650.000
X		60.063%	12.980	140.800	135.700	0.000	1483.000	61460.000	61850.000
σ		0.022%	0.474	1.907	2.444	0.000	5.847	453.800	496.700
%RSD		0.037	3.655	1.354	1.801	0.000	0.394	0.738	0.803
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	120800.000	3981.000	0.000	16950.000	12210.000	11760.000	63.287%	2465.000
2	19:19:07	118900.000	3904.000	0.000	16740.000	12160.000	11830.000	63.549%	2447.000
3	19:19:27	118500.000	3876.000	0.000	16780.000	12310.000	11880.000	62.868%	2458.000
X		119400.000	3920.000	0.000	16830.000	12230.000	11820.000	63.235%	2457.000
σ		1259.000	54.620	0.000	112.300	75.470	61.000	0.344%	8.968
%RSD		1.054	1.393	0.000	0.668	0.617	0.516	0.543	0.365
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	349.900	373.400	3755.000	390600.000	420200.000	134.800	250.300	177.300
2	19:19:07	341.900	371.600	3743.000	388600.000	417300.000	134.500	248.500	178.100
3	19:19:27	346.000	375.600	3760.000	389300.000	415900.000	134.600	249.400	178.000
X		345.900	373.500	3752.000	389500.000	417800.000	134.600	249.400	177.800
σ		4.019	2.016	8.734	1023.000	2173.000	0.145	0.888	0.418
%RSD		1.162	0.540	0.233	0.263	0.520	0.108	0.356	0.235
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	180.700	585.900	597.500	26.260	1.085	4.758	0.000	122.800
2	19:19:07	179.300	588.800	596.600	24.430	1.195	4.570	0.000	124.700
3	19:19:27	178.000	594.900	605.700	25.480	0.901	3.878	0.000	125.800
X		179.300	589.900	599.900	25.390	1.060	4.402	0.000	124.400
σ		1.364	4.594	5.010	0.919	0.148	0.464	0.000	1.486
%RSD		0.760	0.779	0.835	3.618	13.980	10.540	0.000	1.194
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	0.000	7.831	7.488	60.285%	-0.171	-0.186	1.165	0.843
2	19:19:07	0.000	7.577	7.609	61.206%	-0.178	-0.219	1.050	0.781
3	19:19:27	0.000	7.956	7.731	61.000%	-0.147	-0.214	0.992	0.739
X		0.000	7.788	7.609	60.830%	-0.165	-0.206	1.069	0.788
σ		0.000	0.193	0.122	0.484%	0.016	0.018	0.088	0.053
%RSD		0.000	2.476	1.601	0.795	9.664	8.789	8.254	6.667
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:48	70.181%	10.470	3.894	4.323	853.700	855.500	86.334%	85.868%
2	19:19:07	72.403%	10.660	3.936	4.208	850.100	857.700	89.520%	87.835%
3	19:19:27	73.535%	10.740	4.238	4.161	845.700	847.700	90.587%	89.437%
X		72.040%	10.620	4.023	4.231	849.800	853.600	88.814%	87.713%
σ		1.706%	0.138	0.187	0.084	3.996	5.275	2.213%	1.787%
%RSD		2.369	1.296	4.655	1.977	0.470	0.618	2.491	2.038
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:18:48	1.587	1.504	216.100	202.300	210.300	61.290%		
2	19:19:07	1.484	1.506	216.500	201.300	209.800	63.644%		
3	19:19:27	1.505	1.556	217.200	201.200	210.300	64.875%		
X		1.525	1.522	216.600	201.600	210.100	63.270%		
σ		0.055	0.030	0.585	0.650	0.338	1.821%		
%RSD		3.587	1.957	0.270	0.322	0.161	2.879		

180-37716-A-2-B

11/4/2014 7:22:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	64.542%	10.320	100.400	97.940	0.000	1842.000	49330.000	50040.000
2	19:22:39	64.076%	10.840	100.700	97.660	0.000	1848.000	49600.000	49820.000
3	19:22:58	64.204%	10.230	99.270	97.240	0.000	1818.000	49180.000	49340.000
X		64.274%	10.470	100.100	97.610	0.000	1836.000	49370.000	49730.000
σ		0.241%	0.328	0.731	0.351	0.000	15.760	210.200	357.500
%RSD		0.375	3.131	0.731	0.360	0.000	0.858	0.426	0.719
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	128800.000	4704.000	0.000	12980.000	9154.000	8818.000	64.136%	2821.000
2	19:22:39	127700.000	4651.000	0.000	12950.000	9279.000	8971.000	63.349%	2814.000
3	19:22:58	127100.000	4585.000	0.000	12870.000	9107.000	8902.000	63.512%	2821.000
X		127800.000	4647.000	0.000	12930.000	9180.000	8897.000	63.666%	2819.000
σ		855.200	59.320	0.000	57.190	88.900	76.360	0.415%	4.250
%RSD		0.669	1.277	0.000	0.442	0.968	0.858	0.653	0.151
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	325.100	290.200	3759.000	365400.000	389200.000	150.400	259.500	132.100
2	19:22:39	322.400	286.600	3739.000	366700.000	388800.000	151.600	258.700	130.800
3	19:22:58	325.000	288.400	3725.000	361500.000	385600.000	150.500	256.000	131.100
X		324.200	288.400	3741.000	364500.000	387900.000	150.800	258.100	131.300
σ		1.542	1.780	17.070	2724.000	1975.000	0.631	1.814	0.704
%RSD		0.476	0.617	0.456	0.747	0.509	0.418	0.703	0.536
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	132.300	501.400	509.900	29.850	1.724	3.928	0.000	151.500
2	19:22:39	132.500	504.200	516.500	30.200	1.507	3.812	0.000	154.000
3	19:22:58	131.700	509.400	519.500	30.070	1.198	4.588	0.000	153.400
X		132.200	505.000	515.300	30.040	1.477	4.109	0.000	153.000
σ		0.419	4.078	4.937	0.178	0.264	0.419	0.000	1.284
%RSD		0.317	0.808	0.958	0.592	17.890	10.190	0.000	0.839
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	0.000	5.748	5.721	60.480%	-0.169	-0.214	0.852	0.573
2	19:22:39	0.000	5.415	5.860	61.103%	-0.180	-0.175	0.862	0.694
3	19:22:58	0.000	5.621	5.868	61.775%	-0.145	-0.215	0.699	0.472
X		0.000	5.595	5.816	61.119%	-0.165	-0.201	0.804	0.580
σ		0.000	0.168	0.082	0.647%	0.017	0.022	0.091	0.111
%RSD		0.000	3.004	1.417	1.059	10.630	11.060	11.320	19.110
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:20	71.329%	9.223	3.408	3.442	1296.000	1283.000	84.258%	84.179%
2	19:22:39	72.412%	9.913	3.370	3.399	1296.000	1304.000	87.550%	87.236%
3	19:22:58	73.578%	9.856	3.479	3.499	1281.000	1301.000	88.112%	88.834%
X		72.440%	9.664	3.419	3.446	1291.000	1296.000	86.640%	86.750%
σ		1.125%	0.383	0.055	0.050	8.412	11.330	2.082%	2.366%
%RSD		1.553	3.960	1.615	1.458	0.652	0.874	2.403	2.727
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:22:20	1.725	1.722	217.900	200.600	211.700	62.365%		
2	19:22:39	1.793	1.829	225.400	208.000	217.400	62.355%		
3	19:22:58	1.846	1.835	224.100	207.800	217.300	64.179%		
X		1.788	1.795	222.500	205.500	215.500	62.966%		
σ		0.061	0.064	4.009	4.209	3.282	1.050%		
%RSD		3.414	3.561	1.802	2.048	1.523	1.668		

180-37716-A-3-B

11/4/2014 7:25:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	65.781%	18.340	83.570	79.990	0.000	1738.000	40190.000	40580.000
2	19:26:11	66.131%	18.480	83.010	78.540	0.000	1738.000	40500.000	40380.000
3	19:26:30	65.181%	19.110	82.820	79.610	0.000	1756.000	40290.000	40510.000
X		65.698%	18.640	83.140	79.380	0.000	1744.000	40330.000	40490.000
σ		0.481%	0.410	0.388	0.754	0.000	10.570	160.700	98.500
%RSD		0.732	2.197	0.467	0.950	0.000	0.606	0.399	0.243
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	167900.000	4607.000	0.000	12580.000	14490.000	13970.000	68.403%	2047.000
2	19:26:11	167400.000	4524.000	0.000	12700.000	14530.000	13930.000	67.545%	2052.000
3	19:26:30	166900.000	4491.000	0.000	12660.000	14540.000	14070.000	67.876%	2052.000
X		167400.000	4541.000	0.000	12650.000	14520.000	13990.000	67.941%	2050.000
σ		514.600	59.900	0.000	56.290	24.700	71.240	0.433%	2.910
%RSD		0.307	1.319	0.000	0.445	0.170	0.509	0.637	0.142
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	306.200	251.200	6442.000	279400.000	293700.000	212.700	188.000	190.500
2	19:26:11	309.200	255.600	6498.000	280200.000	295700.000	215.000	189.600	193.700
3	19:26:30	306.500	252.600	6441.000	278800.000	293200.000	211.900	187.200	190.700
X		307.300	253.100	6460.000	279400.000	294200.000	213.200	188.300	191.600
σ		1.659	2.238	32.520	721.200	1323.000	1.614	1.241	1.767
%RSD		0.540	0.884	0.503	0.258	0.450	0.757	0.659	0.922
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	193.900	434.300	444.300	32.040	1.678	5.076	0.000	173.600
2	19:26:11	195.200	444.700	455.600	30.500	1.977	5.553	0.000	175.400
3	19:26:30	194.600	439.200	447.400	31.970	1.613	5.010	0.000	175.900
X		194.600	439.400	449.100	31.500	1.756	5.213	0.000	175.000
σ		0.635	5.198	5.835	0.872	0.194	0.296	0.000	1.188
%RSD		0.326	1.183	1.299	2.767	11.040	5.683	0.000	0.679
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	0.000	5.158	5.662	60.968%	0.045	-0.033	0.989	0.735
2	19:26:11	0.000	5.472	5.565	61.512%	0.028	-0.019	1.157	0.835
3	19:26:30	0.000	5.375	5.472	61.932%	0.025	0.009	0.923	0.701
X		0.000	5.335	5.566	61.471%	0.033	-0.014	1.023	0.757
σ		0.000	0.161	0.095	0.483%	0.010	0.021	0.121	0.070
%RSD		0.000	3.013	1.708	0.786	31.930	153.300	11.790	9.210
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:25:52	72.100%	10.600	2.981	2.941	1319.000	1315.000	92.618%	89.386%
2	19:26:11	73.444%	10.830	2.972	3.017	1322.000	1315.000	97.319%	93.150%
3	19:26:30	74.958%	11.090	3.187	2.983	1313.000	1300.000	98.543%	94.498%
X		73.501%	10.840	3.047	2.980	1318.000	1310.000	96.160%	92.344%
σ		1.430%	0.246	0.122	0.038	4.526	8.872	3.128%	2.649%
%RSD		1.946	2.274	3.989	1.291	0.343	0.677	3.253	2.869
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:25:52	2.256	2.258	250.300	234.500	243.900	62.107%		
2	19:26:11	2.301	2.285	256.500	236.400	249.100	63.187%		
3	19:26:30	2.303	2.351	252.000	236.200	245.800	64.708%		
X		2.286	2.298	252.900	235.700	246.200	63.334%		
σ		0.027	0.048	3.239	1.046	2.621	1.306%		
%RSD		1.163	2.082	1.280	0.444	1.064	2.063		



180-37716-A-4-B

11/4/2014 7:29:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	62.391%	8.845	115.400	113.100	0.000	1269.000	57120.000	57260.000
2	19:29:42	64.444%	9.332	112.500	107.200	0.000	1231.000	56060.000	56590.000
3	19:30:01	62.471%	9.285	112.400	109.400	0.000	1248.000	56300.000	56520.000
X		63.102%	9.154	113.400	109.900	0.000	1249.000	56490.000	56790.000
σ		1.163%	0.269	1.693	3.005	0.000	18.870	558.800	404.300
%RSD		1.843	2.933	1.493	2.734	0.000	1.510	0.989	0.712
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	92710.000	4282.000	0.000	11770.000	13970.000	13730.000	63.547%	1636.000
2	19:29:42	90840.000	4219.000	0.000	11870.000	14460.000	13840.000	62.955%	1649.000
3	19:30:01	91950.000	4209.000	0.000	11730.000	14000.000	13730.000	63.452%	1636.000
X		91830.000	4237.000	0.000	11790.000	14150.000	13770.000	63.318%	1640.000
σ		942.800	39.730	0.000	71.410	274.400	64.030	0.318%	7.300
%RSD		1.027	0.938	0.000	0.606	1.940	0.465	0.502	0.445
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	251.500	266.700	3363.000	305600.000	321800.000	134.400	256.000	95.280
2	19:29:42	254.700	268.400	3368.000	305500.000	320900.000	132.600	257.100	95.760
3	19:30:01	250.200	266.400	3348.000	303100.000	319800.000	132.000	257.200	95.240
X		252.100	267.200	3360.000	304700.000	320900.000	133.000	256.800	95.430
σ		2.343	1.071	10.400	1408.000	1003.000	1.234	0.645	0.292
%RSD		0.929	0.401	0.310	0.462	0.313	0.928	0.251	0.306
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	97.390	588.400	603.400	22.950	0.631	3.121	0.000	105.900
2	19:29:42	95.590	597.100	608.000	22.950	1.028	3.403	0.000	107.200
3	19:30:01	96.300	595.400	603.500	24.530	0.899	2.531	0.000	106.400
X		96.420	593.600	605.000	23.470	0.853	3.018	0.000	106.500
σ		0.906	4.645	2.633	0.912	0.203	0.445	0.000	0.662
%RSD		0.940	0.782	0.435	3.885	23.790	14.750	0.000	0.621
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	0.000	5.331	5.552	61.810%	-0.133	-0.182	1.134	0.899
2	19:29:42	0.000	5.411	5.462	62.336%	-0.108	-0.177	1.044	0.791
3	19:30:01	0.000	4.977	5.320	62.485%	-0.137	-0.183	1.039	0.867
X		0.000	5.240	5.445	62.210%	-0.126	-0.181	1.072	0.853
σ		0.000	0.231	0.117	0.354%	0.016	0.003	0.054	0.056
%RSD		0.000	4.400	2.150	0.570	12.470	1.854	5.003	6.534
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:29:23	72.628%	7.609	3.618	3.503	695.000	697.400	88.109%	86.752%
2	19:29:42	74.211%	7.509	3.434	3.747	693.300	694.800	90.807%	90.022%
3	19:30:01	74.490%	7.827	3.796	3.719	696.300	693.900	90.820%	89.896%
X		73.776%	7.648	3.616	3.656	694.900	695.400	89.912%	88.890%
σ		1.004%	0.162	0.181	0.133	1.471	1.799	1.562%	1.853%
%RSD		1.361	2.121	4.999	3.642	0.212	0.259	1.737	2.085
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:29:23	1.043	0.985	183.700	172.400	180.000	64.319%		
2	19:29:42	0.983	1.036	187.700	175.100	182.400	65.349%		
3	19:30:01	1.024	1.041	187.700	175.000	182.400	66.752%		
X		1.017	1.020	186.400	174.200	181.600	65.474%		
σ		0.031	0.031	2.269	1.572	1.405	1.221%		
%RSD		3.023	3.021	1.218	0.902	0.774	1.865		

180-37716-A-5-B

11/4/2014 7:32:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	65.653%	11.250	62.020	61.760	0.000	1522.000	31500.000	31900.000
2	19:33:14	64.343%	10.950	64.530	62.360	0.000	1542.000	32030.000	31910.000
3	19:33:33	65.400%	10.520	62.380	61.730	0.000	1544.000	31980.000	32110.000
x		65.132%	10.910	62.980	61.950	0.000	1536.000	31840.000	31970.000
σ		0.695%	0.367	1.358	0.357	0.000	11.820	291.100	116.900
%RSD		1.067	3.366	2.157	0.577	0.000	0.769	0.914	0.366
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	98370.000	3102.000	0.000	6246.000	9686.000	9290.000	66.560%	2415.000
2	19:33:14	98300.000	3107.000	0.000	6299.000	9742.000	9312.000	66.772%	2432.000
3	19:33:33	98740.000	3088.000	0.000	6297.000	9749.000	9395.000	66.760%	2425.000
x		98470.000	3099.000	0.000	6281.000	9726.000	9332.000	66.698%	2424.000
σ		235.400	9.869	0.000	29.730	34.790	55.500	0.119%	8.480
%RSD		0.239	0.319	0.000	0.473	0.358	0.595	0.179	0.350
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	423.400	248.600	3068.000	254600.000	265500.000	92.110	177.900	200.700
2	19:33:14	426.000	250.100	3050.000	253500.000	266200.000	92.890	178.400	201.500
3	19:33:33	417.700	248.500	3080.000	254100.000	265000.000	92.320	179.500	200.000
x		422.400	249.100	3066.000	254000.000	265500.000	92.440	178.600	200.700
σ		4.259	0.914	15.130	560.800	612.000	0.400	0.815	0.707
%RSD		1.008	0.367	0.493	0.221	0.231	0.432	0.456	0.352
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	201.900	351.600	357.200	20.780	1.310	4.048	0.000	125.900
2	19:33:14	205.000	351.800	357.900	21.810	1.451	3.657	0.000	126.600
3	19:33:33	204.400	352.000	359.200	21.960	1.176	3.593	0.000	128.600
x		203.700	351.800	358.100	21.520	1.312	3.766	0.000	127.000
σ		1.621	0.212	0.995	0.640	0.138	0.246	0.000	1.376
%RSD		0.795	0.060	0.278	2.973	10.490	6.540	0.000	1.083
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	0.000	3.133	2.931	63.223%	0.007	0.014	1.052	0.746
2	19:33:14	0.000	3.233	3.199	63.879%	0.090	0.018	0.822	0.590
3	19:33:33	0.000	3.356	3.185	63.746%	0.047	-0.009	0.745	0.548
x		0.000	3.241	3.105	63.616%	0.048	0.007	0.873	0.628
σ		0.000	0.112	0.151	0.347%	0.042	0.015	0.160	0.104
%RSD		0.000	3.461	4.856	0.545	86.790	195.700	18.280	16.580
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:32:55	73.867%	7.943	2.007	2.077	1139.000	1143.000	91.950%	90.386%
2	19:33:14	75.402%	7.975	2.068	2.229	1146.000	1149.000	94.568%	93.360%
3	19:33:33	76.936%	7.818	2.044	2.094	1140.000	1141.000	96.154%	94.485%
x		75.402%	7.912	2.040	2.133	1142.000	1144.000	94.224%	92.744%
σ		1.535%	0.083	0.031	0.083	3.796	4.042	2.123%	2.118%
%RSD		2.036	1.053	1.510	3.894	0.333	0.353	2.253	2.284
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:32:55	1.083	1.066	152.200	140.700	147.700	65.982%		
2	19:33:14	1.067	1.101	154.100	142.600	149.500	67.212%		
3	19:33:33	1.082	1.089	155.200	142.700	149.700	68.558%		
x		1.077	1.085	153.800	142.000	148.900	67.251%		
σ		0.009	0.018	1.490	1.134	1.093	1.289%		
%RSD		0.791	1.644	0.968	0.799	0.734	1.916		

180-37716-A-8-C

11/4/2014 7:36:07 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	65.175%	15.000	68.140	64.200	0.000	1648.000	38100.000	38350.000
2	19:36:45	65.022%	14.740	67.680	64.550	0.000	1655.000	37810.000	38010.000
3	19:37:05	64.908%	14.530	64.880	62.980	0.000	1620.000	37210.000	37400.000
X		65.035%	14.750	66.900	63.910	0.000	1641.000	37710.000	37920.000
σ		0.134%	0.234	1.762	0.824	0.000	18.530	454.600	478.700
%RSD		0.206	1.588	2.633	1.289	0.000	1.130	1.206	1.262
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	127900.000	3236.000	0.000	8709.000	10430.000	10040.000	67.743%	2482.000
2	19:36:45	126700.000	3185.000	0.000	8599.000	10310.000	9967.000	68.064%	2492.000
3	19:37:05	125300.000	3148.000	0.000	8523.000	10310.000	9920.000	68.683%	2473.000
X		126600.000	3190.000	0.000	8610.000	10350.000	9976.000	68.164%	2482.000
σ		1324.000	44.060	0.000	93.670	68.770	60.110	0.478%	9.644
%RSD		1.046	1.381	0.000	1.088	0.664	0.603	0.701	0.389
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	588.300	260.000	14410.000	301600.000	319100.000	180.200	297.000	360.300
2	19:36:45	584.900	258.300	14310.000	299400.000	316300.000	180.300	295.500	360.700
3	19:37:05	576.400	256.400	14220.000	296000.000	313700.000	178.300	293.200	357.500
X		583.200	258.200	14310.000	299000.000	316400.000	179.600	295.200	359.500
σ		6.140	1.810	95.150	2812.000	2695.000	1.108	1.949	1.730
%RSD		1.053	0.701	0.665	0.941	0.852	0.617	0.660	0.481
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	361.900	455.100	466.600	35.180	1.741	6.214	0.000	134.300
2	19:36:45	361.500	458.200	468.400	36.300	1.880	4.455	0.000	135.400
3	19:37:05	361.700	454.700	461.800	34.400	1.572	4.947	0.000	134.700
X		361.700	456.000	465.600	35.300	1.731	5.205	0.000	134.800
σ		0.231	1.957	3.410	0.957	0.155	0.908	0.000	0.546
%RSD		0.064	0.429	0.733	2.711	8.924	17.440	0.000	0.405
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	0.000	5.455	5.236	61.036%	-0.063	-0.100	1.276	1.074
2	19:36:45	0.000	5.128	5.264	61.765%	-0.049	-0.109	1.498	1.175
3	19:37:05	0.000	5.208	5.320	62.011%	-0.059	-0.136	1.685	1.353
X		0.000	5.264	5.273	61.604%	-0.057	-0.115	1.486	1.201
σ		0.000	0.171	0.043	0.507%	0.008	0.019	0.205	0.141
%RSD		0.000	3.240	0.811	0.822	13.380	16.240	13.790	11.760
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:26	72.588%	9.087	2.174	2.448	2233.000	2238.000	94.708%	92.806%
2	19:36:45	73.722%	9.119	2.356	2.434	2238.000	2246.000	97.929%	95.820%
3	19:37:05	74.897%	9.022	2.449	2.393	2228.000	2230.000	97.633%	96.729%
X		73.736%	9.076	2.326	2.425	2233.000	2238.000	96.756%	95.118%
σ		1.154%	0.049	0.140	0.029	5.236	8.163	1.781%	2.053%
%RSD		1.565	0.545	6.025	1.190	0.234	0.365	1.840	2.159
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:36:26	1.467	1.549	185.800	169.000	178.600	63.507%		
2	19:36:45	1.538	1.630	192.000	174.900	184.400	63.353%		
3	19:37:05	1.618	1.588	189.900	174.000	182.800	65.207%		
X		1.541	1.589	189.200	172.600	181.900	64.022%		
σ		0.076	0.041	3.157	3.211	3.023	1.029%		
%RSD		4.910	2.550	1.668	1.860	1.662	1.607		

180-37716-A-8-C SD@5

11/4/2014 7:39:39 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	61.702%	2.946	29.540	28.880	0.000	367.000	8387.000	8369.000
2	19:40:17	61.810%	3.287	26.970	27.100	0.000	367.300	8397.000	8359.000
3	19:40:37	60.966%	3.542	27.240	25.670	0.000	365.400	8379.000	8324.000
X		61.493%	3.258	27.920	27.220	0.000	366.600	8388.000	8351.000
σ		0.460%	0.299	1.414	1.606	0.000	0.997	9.382	23.440
%RSD		0.748	9.186	5.065	5.902	0.000	0.272	0.112	0.281
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	28600.000	748.600	0.000	1915.000	2282.000	2217.000	67.865%	543.100
2	19:40:17	28490.000	762.100	0.000	1920.000	2267.000	2242.000	66.814%	552.400
3	19:40:37	28530.000	757.100	0.000	1921.000	2394.000	2254.000	65.484%	553.100
X		28540.000	755.900	0.000	1919.000	2314.000	2238.000	66.721%	549.500
σ		53.240	6.833	0.000	3.292	69.530	18.930	1.193%	5.596
%RSD		0.187	0.904	0.000	0.172	3.004	0.846	1.789	1.018
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	126.700	56.930	3152.000	69400.000	69870.000	39.410	67.240	85.050
2	19:40:17	126.100	57.300	3173.000	69490.000	69930.000	39.870	68.920	84.960
3	19:40:37	126.900	57.500	3166.000	69440.000	70220.000	39.310	66.390	85.220
X		126.600	57.240	3164.000	69440.000	70010.000	39.530	67.520	85.080
σ		0.453	0.290	10.410	48.960	186.200	0.297	1.284	0.133
%RSD		0.358	0.506	0.329	0.070	0.266	0.750	1.902	0.157
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	86.240	117.000	120.100	9.324	0.576	2.414	0.000	26.420
2	19:40:17	85.640	120.000	121.400	8.922	0.755	1.415	0.000	26.750
3	19:40:37	85.220	120.300	123.000	8.513	0.625	1.134	0.000	26.610
X		85.700	119.100	121.500	8.920	0.652	1.654	0.000	26.590
σ		0.513	1.861	1.477	0.405	0.092	0.673	0.000	0.168
%RSD		0.598	1.563	1.216	4.543	14.150	40.680	0.000	0.633
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	0.000	0.932	0.839	70.985%	-0.301	-0.282	0.248	0.167
2	19:40:17	0.000	0.899	0.811	70.903%	-0.293	-0.261	0.238	0.147
3	19:40:37	0.000	0.889	0.884	70.900%	-0.281	-0.275	0.219	0.170
X		0.000	0.906	0.845	70.929%	-0.292	-0.273	0.235	0.161
σ		0.000	0.023	0.037	0.048%	0.010	0.011	0.015	0.013
%RSD		0.000	2.504	4.364	0.068	3.434	3.885	6.321	7.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:39:58	79.866%	1.109	0.489	0.393	472.600	473.900	89.912%	90.030%
2	19:40:17	81.532%	1.088	0.389	0.435	473.700	473.400	92.087%	92.021%
3	19:40:37	81.548%	1.032	0.431	0.454	472.700	472.200	92.446%	93.050%
X		80.982%	1.076	0.436	0.427	473.000	473.200	91.481%	91.700%
σ		0.966%	0.040	0.050	0.031	0.590	0.871	1.371%	1.536%
%RSD		1.193	3.717	11.530	7.327	0.125	0.184	1.499	1.675
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:39:58	0.286	0.282	34.830	31.990	33.480	78.706%		
2	19:40:17	0.252	0.299	35.350	32.410	33.870	79.703%		
3	19:40:37	0.281	0.291	35.420	33.000	34.170	80.296%		
X		0.273	0.291	35.200	32.470	33.840	79.568%		
σ		0.019	0.008	0.322	0.503	0.348	0.803%		
%RSD		6.864	2.901	0.915	1.548	1.029	1.009		

CCV 1369903 11/4/2014 7:43:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	59.524%	102.000	115.400	114.000	0.000	51490.000	50020.000	49660.000
2	19:43:38	58.079%	101.700	112.500	114.300	0.000	51240.000	49550.000	49370.000
3	19:43:57	57.404%	100.300	115.200	111.700	0.000	51030.000	49710.000	49600.000
X		58.336%	101.297%	114.355%	113.319%	0.000	102.507%	99.518%	99.092%
σ		1.083%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.856	0.890	1.399	1.279	0.000	0.442	0.482	0.312
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	529.100	4997.000	0.000	51080.000	50630.000	49990.000	65.159%	102.600
2	19:43:38	531.400	4936.000	0.000	51060.000	51240.000	50590.000	63.243%	102.500
3	19:43:57	536.000	4930.000	0.000	51200.000	50860.000	50480.000	63.226%	101.500
X		106.431%	99.084%	0.000	102.235%	101.818%	100.703%	63.876%	102.213%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.111%	n/a
%RSD		0.661	0.742	0.000	0.149	0.609	0.636	1.740	0.570
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	97.880	97.700	490.800	24710.000	24750.000	99.740	100.200	101.400
2	19:43:38	100.100	100.400	495.300	24960.000	24860.000	99.890	101.400	101.700
3	19:43:57	99.160	99.700	503.800	24960.000	24760.000	99.640	99.740	101.800
X		99.047%	99.257%	99.332%	99.498%	99.160%	99.759%	100.459%	101.657%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.126	1.399	1.330	0.589	0.262	0.124	0.870	0.193
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	101.700	104.100	106.300	102.300	102.900	105.000	0.000	100.600
2	19:43:38	101.500	107.300	106.600	104.100	104.200	105.700	0.000	101.100
3	19:43:57	102.500	106.700	107.700	100.600	103.000	100.500	0.000	101.300
X		101.906%	106.028%	106.865%	102.355%	103.348%	103.744%	0.000	101.020%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.486	1.604	0.704	1.725	0.694	2.690	0.000	0.389
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	68.807%	94.710	96.270	63.546%	101.600	101.400	102.000	102.600
2	19:43:38	68.916%	98.580	101.600	63.401%	101.200	101.900	103.400	102.600
3	19:43:57	69.121%	101.200	105.200	63.161%	102.500	100.900	103.300	100.600
X		68.948%	98.163%	101.030%	63.369%	101.736%	101.395%	102.882%	101.904%
σ		0.159%	n/a	n/a	0.195%	n/a	n/a	n/a	n/a
%RSD		0.231	3.326	4.470	0.308	0.661	0.485	0.743	1.144
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:19	71.036%	99.140	98.760	99.010	99.800	100.700	75.864%	76.500%
2	19:43:38	71.679%	100.100	100.700	101.500	99.830	101.200	78.198%	78.247%
3	19:43:57	72.934%	100.800	101.000	100.300	101.100	100.600	78.329%	79.719%
X		71.883%	100.017%	100.146%	100.266%	100.241%	100.843%	77.464%	78.156%
σ		0.965%	n/a	n/a	n/a	n/a	n/a	1.387%	1.612%
%RSD		1.343	0.833	1.201	1.248	0.733	0.321	1.790	2.062
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:43:19	103.800	104.500	104.200	104.300	104.200	70.803%		
2	19:43:38	104.500	105.900	105.900	107.500	107.000	71.679%		
3	19:43:57	106.000	107.100	107.400	107.900	107.700	71.883%		
X		104.776%	105.844%	105.839%	106.563%	106.279%	71.455%		
σ		n/a	n/a	n/a	n/a	n/a	0.574%		
%RSD		1.092	1.207	1.505	1.867	1.744	0.803		

CCB8 11/4/2014 7:49:15 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	77.327%	0.019	14.440	15.870	0.000	18.530	3.735	3.441
2	19:49:54	76.959%	-0.003	15.370	15.660	0.000	18.430	3.776	3.609
3	19:50:13	76.946%	-0.003	15.020	14.850	0.000	18.970	3.681	3.909
X		77.077%	0.004	14.940	15.460	0.000	18.640	3.731	3.653
σ		0.216%	0.013	0.472	0.539	0.000	0.290	0.048	0.237
%RSD		0.280	311.600	3.156	3.485	0.000	1.556	1.277	6.483
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	6.190	12.290	0.000	-3.955	37.020	37.950	87.632%	0.112
2	19:49:54	6.203	11.540	0.000	-4.198	30.880	36.270	87.309%	0.125
3	19:50:13	6.257	10.640	0.000	-4.231	43.540	37.280	87.187%	0.086
X		6.217	11.490	0.000	-4.128	37.150	37.170	87.376%	0.108
σ		0.035	0.826	0.000	0.151	6.330	0.848	0.230%	0.020
%RSD		0.566	7.185	0.000	3.655	17.040	2.282	0.263	18.330
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	-0.028	0.089	0.137	14.140	12.070	0.003	0.117	-0.017
2	19:49:54	0.058	0.077	0.140	12.370	10.440	0.004	0.082	-0.020
3	19:50:13	-0.018	0.094	0.156	10.380	10.620	0.000	0.106	-0.037
X		0.004	0.087	0.144	12.300	11.050	0.002	0.102	-0.025
σ		0.047	0.008	0.010	1.879	0.894	0.002	0.018	0.011
%RSD		1157.000	9.768	7.226	15.280	8.093	76.080	17.400	43.390
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	-0.065	1.723	1.822	-0.138	0.124	-0.380	0.000	0.089
2	19:49:54	-0.081	1.768	1.857	-0.351	0.092	-0.800	0.000	0.088
3	19:50:13	-0.073	1.883	1.766	-0.302	-0.031	-1.018	0.000	0.084
X		-0.073	1.792	1.815	-0.264	0.062	-0.733	0.000	0.087
σ		0.008	0.082	0.046	0.112	0.082	0.325	0.000	0.003
%RSD		11.070	4.598	2.542	42.280	132.500	44.300	0.000	3.222
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	81.699%	0.162	0.185	76.691%	-0.339	-0.300	-0.045	-0.038
2	19:49:54	83.080%	0.145	0.192	78.104%	-0.320	-0.290	0.003	-0.015
3	19:50:13	84.298%	0.093	0.100	78.608%	-0.308	-0.293	-0.051	-0.033
X		83.026%	0.134	0.159	77.801%	-0.322	-0.294	-0.031	-0.029
σ		1.300%	0.036	0.051	0.994%	0.016	0.005	0.030	0.012
%RSD		1.566	26.840	32.190	1.278	4.830	1.727	94.960	41.350
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:49:35	80.443%	-0.499	-0.009	0.053	0.035	0.035	80.769%	80.982%
2	19:49:54	82.902%	-0.539	0.029	0.020	0.040	0.052	84.167%	83.841%
3	19:50:13	84.170%	-0.479	0.012	-0.001	0.084	0.055	86.143%	85.838%
X		82.505%	-0.506	0.011	0.024	0.053	0.047	83.693%	83.554%
σ		1.895%	0.030	0.019	0.028	0.027	0.011	2.719%	2.441%
%RSD		2.296	5.986	173.800	115.000	50.740	22.540	3.248	2.921
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:49:35	0.004	0.001	0.137	0.141	0.144	84.166%		
2	19:49:54	0.005	0.005	0.140	0.124	0.136	86.143%		
3	19:50:13	0.003	0.004	0.167	0.134	0.144	86.418%		
X		0.004	0.003	0.148	0.133	0.141	85.576%		
σ		0.001	0.002	0.016	0.009	0.005	1.228%		
%RSD		20.160	56.090	11.060	6.601	3.244	1.436		

180-37716-A-8-D MS

11/4/2014 7:52:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	53.956%	55.880	851.300	834.000	0.000	44030.000	94790.000	95310.000
2	19:53:28	53.837%	57.350	885.400	843.300	0.000	44510.000	95660.000	96070.000
3	19:53:47	54.625%	55.270	867.200	845.600	0.000	43990.000	93790.000	94640.000
X		54.139%	56.170	867.900	840.900	0.000	44180.000	94750.000	95340.000
σ		0.424%	1.074	17.080	6.143	0.000	291.000	934.400	713.700
%RSD		0.784	1.911	1.968	0.731	0.000	0.659	0.986	0.749
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	210100.000	8163.000	0.000	64010.000	51980.000	50970.000	59.983%	3889.000
2	19:53:28	209900.000	8004.000	0.000	63600.000	51550.000	50470.000	60.328%	3855.000
3	19:53:47	206400.000	7848.000	0.000	62430.000	50410.000	49240.000	62.087%	3783.000
X		208800.000	8005.000	0.000	63350.000	51320.000	50220.000	60.800%	3842.000
σ		2081.000	157.200	0.000	820.000	808.800	891.900	1.128%	54.320
%RSD		0.997	1.964	0.000	1.294	1.576	1.776	1.856	1.414
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	1090.000	482.400	25890.000	312600.000	329800.000	669.500	761.500	645.700
2	19:53:28	1083.000	479.300	25890.000	312100.000	327500.000	660.300	758.000	645.300
3	19:53:47	1051.000	468.900	25320.000	304700.000	320900.000	647.800	740.900	635.700
X		1074.000	476.900	25700.000	309800.000	326100.000	659.200	753.500	642.200
σ		20.750	7.065	328.000	4384.000	4599.000	10.910	11.000	5.676
%RSD		1.932	1.482	1.276	1.415	1.410	1.655	1.460	0.884
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	653.600	962.600	980.700	49.640	7.358	12.160	0.000	1157.000
2	19:53:28	651.500	968.500	994.300	51.250	7.729	13.340	0.000	1157.000
3	19:53:47	644.600	952.700	973.600	51.360	7.646	12.970	0.000	1170.000
X		649.900	961.300	982.800	50.750	7.578	12.830	0.000	1161.000
σ		4.723	7.991	10.520	0.963	0.194	0.600	0.000	7.314
%RSD		0.727	0.831	1.070	1.898	2.566	4.677	0.000	0.630
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	0.000	1049.000	1086.000	52.018%	43.650	43.760	43.720	38.260
2	19:53:28	0.000	1062.000	1096.000	52.533%	43.670	43.850	42.500	38.390
3	19:53:47	0.000	1071.000	1092.000	52.847%	43.990	43.220	41.440	37.070
X		0.000	1061.000	1091.000	52.466%	43.770	43.610	42.560	37.910
σ		0.000	10.920	4.819	0.419%	0.194	0.339	1.140	0.729
%RSD		0.000	1.030	0.442	0.798	0.443	0.778	2.679	1.922
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:09	62.461%	1747.000	264.900	261.300	6197.000	6122.000	86.949%	86.046%
2	19:53:28	64.601%	1739.000	267.100	260.500	6138.000	6056.000	90.629%	89.814%
3	19:53:47	66.054%	1717.000	260.400	259.300	6073.000	5971.000	91.971%	90.827%
X		64.372%	1734.000	264.100	260.300	6136.000	6049.000	89.850%	88.895%
σ		1.807%	15.850	3.437	1.021	61.630	75.490	2.600%	2.519%
%RSD		2.808	0.914	1.301	0.392	1.004	1.248	2.894	2.834
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:53:09	51.480	52.760	239.200	220.900	233.400	54.350%		
2	19:53:28	52.060	53.240	239.300	224.100	234.800	55.627%		
3	19:53:47	52.220	53.160	238.000	223.100	233.900	56.932%		
X		51.920	53.050	238.900	222.700	234.000	55.636%		
σ		0.393	0.257	0.718	1.634	0.726	1.291%		
%RSD		0.756	0.484	0.300	0.734	0.310	2.320		

180-37716-A-8-B MSD

11/4/2014 7:56:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	56.782%	51.330	854.500	825.600	0.000	42760.000	85780.000	86320.000
2	19:57:01	57.146%	47.870	836.700	817.800	0.000	41900.000	84970.000	85230.000
3	19:57:20	57.809%	47.930	818.800	805.200	0.000	41910.000	84250.000	84820.000
X		57.246%	49.040	836.600	816.200	0.000	42190.000	85000.000	85460.000
σ		0.521%	1.978	17.850	10.270	0.000	497.600	763.600	774.900
%RSD		0.910	4.034	2.133	1.258	0.000	1.179	0.898	0.907
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	133600.000	8328.000	0.000	52740.000	51310.000	49990.000	62.594%	3987.000
2	19:57:01	131000.000	8113.000	0.000	52520.000	51790.000	49860.000	62.750%	3987.000
3	19:57:20	130900.000	8025.000	0.000	52710.000	51310.000	50410.000	61.773%	3994.000
X		131800.000	8155.000	0.000	52650.000	51470.000	50090.000	62.372%	3989.000
σ		1554.000	155.700	0.000	121.100	276.800	290.000	0.525%	3.892
%RSD		1.179	1.909	0.000	0.230	0.538	0.579	0.842	0.098
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	971.000	476.600	11020.000	243200.000	251900.000	527.700	717.100	572.400
2	19:57:01	954.800	474.600	11040.000	242400.000	251600.000	530.300	725.100	573.300
3	19:57:20	963.500	476.500	11180.000	245800.000	255200.000	538.900	729.800	581.400
X		963.100	475.900	11080.000	243800.000	252900.000	532.300	724.000	575.700
σ		8.133	1.096	88.060	1769.000	1998.000	5.866	6.408	4.945
%RSD		0.844	0.230	0.795	0.725	0.790	1.102	0.885	0.859
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	583.100	865.200	880.300	44.390	8.127	13.230	0.000	1071.000
2	19:57:01	579.900	861.600	877.700	44.790	8.179	11.990	0.000	1073.000
3	19:57:20	584.500	867.300	886.300	45.070	7.697	13.000	0.000	1085.000
X		582.500	864.700	881.400	44.750	8.001	12.740	0.000	1076.000
σ		2.357	2.893	4.419	0.342	0.265	0.661	0.000	7.426
%RSD		0.405	0.335	0.501	0.764	3.309	5.189	0.000	0.690
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	0.000	1033.000	1050.000	54.568%	42.630	42.390	42.250	37.330
2	19:57:01	0.000	1031.000	1064.000	54.878%	43.200	42.900	42.370	37.540
3	19:57:20	0.000	1045.000	1071.000	55.076%	42.990	42.910	42.050	36.340
X		0.000	1036.000	1062.000	54.841%	42.940	42.730	42.220	37.070
σ		0.000	7.799	10.520	0.256%	0.290	0.301	0.157	0.640
%RSD		0.000	0.752	0.990	0.467	0.675	0.704	0.373	1.727
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:56:42	66.005%	1707.000	281.200	279.700	3167.000	3117.000	91.974%	91.254%
2	19:57:01	66.703%	1718.000	282.100	279.300	3191.000	3112.000	94.372%	94.146%
3	19:57:20	67.984%	1697.000	280.800	280.600	3156.000	3082.000	97.365%	95.754%
X		66.897%	1707.000	281.400	279.900	3171.000	3104.000	94.570%	93.718%
σ		1.004%	10.540	0.705	0.633	17.790	19.110	2.701%	2.280%
%RSD		1.500	0.617	0.251	0.226	0.561	0.616	2.856	2.433
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:56:42	51.110	52.110	171.000	160.300	166.700	57.097%		
2	19:57:01	50.910	51.850	170.800	159.700	167.000	59.299%		
3	19:57:20	50.590	51.490	169.500	160.300	167.200	60.110%		
X		50.870	51.820	170.400	160.100	167.000	58.835%		
σ		0.265	0.309	0.812	0.378	0.216	1.559%		
%RSD		0.521	0.597	0.476	0.236	0.129	2.650		



180-37716-A-8-C PDS

11/4/2014 7:59:55 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	57.300%	54.290	857.200	829.900	0.000	46080.000	77390.000	77770.000
2	20:00:33	55.589%	54.910	860.200	820.800	0.000	46140.000	77700.000	78020.000
3	20:00:53	55.580%	55.400	852.600	812.100	0.000	45520.000	77140.000	76920.000
X		56.156%	54.870	856.700	820.900	0.000	45910.000	77410.000	77570.000
σ		0.990%	0.556	3.815	8.906	0.000	341.600	280.900	580.000
%RSD		1.763	1.013	0.445	1.085	0.000	0.744	0.363	0.748
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	126600.000	10830.000	0.000	50470.000	52900.000	52000.000	62.193%	3301.000
2	20:00:33	126500.000	10700.000	0.000	50020.000	52470.000	51820.000	61.700%	3298.000
3	20:00:53	123900.000	10430.000	0.000	49550.000	51960.000	50440.000	62.598%	3196.000
X		125700.000	10650.000	0.000	50010.000	52440.000	51420.000	62.164%	3265.000
σ		1530.000	201.000	0.000	460.700	472.000	856.700	0.450%	60.090
%RSD		1.218	1.886	0.000	0.921	0.900	1.666	0.724	1.841
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	977.500	412.000	14170.000	290300.000	303800.000	584.300	674.500	535.100
2	20:00:33	974.100	412.300	14290.000	291200.000	305500.000	587.700	678.500	535.800
3	20:00:53	941.600	403.200	13960.000	283100.000	295800.000	569.300	660.800	524.400
X		964.400	409.200	14140.000	288200.000	301700.000	580.400	671.300	531.800
σ		19.800	5.144	168.100	4452.000	5163.000	9.786	9.279	6.404
%RSD		2.053	1.257	1.189	1.545	1.711	1.686	1.382	1.204
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	544.800	799.700	810.800	62.890	8.380	11.810	0.000	1159.000
2	20:00:33	545.300	808.800	816.500	63.470	9.003	11.650	0.000	1160.000
3	20:00:53	528.100	790.800	810.900	62.350	8.251	12.880	0.000	1156.000
X		539.400	799.700	812.700	62.910	8.545	12.110	0.000	1158.000
σ		9.768	9.007	3.244	0.558	0.402	0.665	0.000	2.175
%RSD		1.811	1.126	0.399	0.887	4.709	5.493	0.000	0.188
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	0.000	1190.000	1217.000	54.389%	48.820	47.800	44.580	38.910
2	20:00:33	0.000	1192.000	1219.000	55.048%	49.210	47.660	44.580	38.390
3	20:00:53	0.000	1185.000	1221.000	55.092%	48.440	48.260	44.330	39.120
X		0.000	1189.000	1219.000	54.843%	48.820	47.910	44.490	38.810
σ		0.000	3.535	2.066	0.394%	0.381	0.310	0.141	0.372
%RSD		0.000	0.297	0.170	0.718	0.781	0.647	0.317	0.960
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:00:14	64.998%	1978.000	444.900	442.700	3931.000	3890.000	87.100%	85.340%
2	20:00:33	66.672%	1964.000	456.600	446.800	3905.000	3840.000	90.146%	88.225%
3	20:00:53	67.612%	1959.000	445.800	442.400	3885.000	3825.000	90.013%	89.216%
X		66.428%	1967.000	449.100	444.000	3907.000	3852.000	89.086%	87.594%
σ		1.324%	9.990	6.493	2.448	23.130	33.980	1.721%	2.014%
%RSD		1.993	0.508	1.446	0.551	0.592	0.882	1.932	2.299
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:00:14	55.330	56.510	206.300	190.100	200.100	57.353%		
2	20:00:33	57.560	57.660	209.500	195.100	203.500	58.106%		
3	20:00:53	55.900	57.070	208.300	193.300	202.400	59.598%		
X		56.260	57.080	208.000	192.800	202.000	58.352%		
σ		1.162	0.572	1.613	2.508	1.757	1.142%		
%RSD		2.065	1.002	0.775	1.300	0.870	1.957		

180-37716-A-6-B

11/4/2014 8:03:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	63.462%	16.500	91.580	89.770	0.000	1767.000	55140.000	55380.000
2	20:04:06	62.526%	16.620	91.550	88.310	0.000	1755.000	55200.000	55240.000
3	20:04:25	62.839%	17.470	86.460	87.190	0.000	1775.000	55110.000	55410.000
X		62.942%	16.870	89.860	88.420	0.000	1766.000	55150.000	55350.000
σ		0.477%	0.530	2.946	1.292	0.000	9.993	48.260	90.200
%RSD		0.757	3.144	3.278	1.462	0.000	0.566	0.087	0.163
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	137000.000	4257.000	0.000	12360.000	14720.000	14010.000	67.943%	2187.000
2	20:04:06	136200.000	4206.000	0.000	12350.000	14740.000	13980.000	67.331%	2177.000
3	20:04:25	136400.000	4177.000	0.000	12380.000	14600.000	14080.000	67.353%	2182.000
X		136500.000	4213.000	0.000	12360.000	14690.000	14020.000	67.542%	2182.000
σ		375.300	40.810	0.000	13.100	77.030	48.630	0.347%	4.857
%RSD		0.275	0.969	0.000	0.106	0.524	0.347	0.514	0.223
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	322.200	313.200	7249.000	342600.000	362100.000	401.000	303.200	411.500
2	20:04:06	320.400	311.900	7237.000	338900.000	361100.000	399.900	303.200	408.900
3	20:04:25	321.100	309.800	7222.000	340800.000	361200.000	401.400	303.400	409.800
X		321.200	311.700	7236.000	340800.000	361500.000	400.700	303.300	410.100
σ		0.898	1.703	13.790	1876.000	556.500	0.746	0.105	1.313
%RSD		0.280	0.546	0.191	0.551	0.154	0.186	0.034	0.320
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	417.500	733.900	756.400	19.370	3.495	12.440	0.000	203.400
2	20:04:06	416.200	739.500	750.900	20.160	3.682	10.620	0.000	205.400
3	20:04:25	414.600	741.000	758.200	20.540	3.627	12.130	0.000	206.500
X		416.100	738.200	755.200	20.020	3.601	11.730	0.000	205.100
σ		1.461	3.726	3.784	0.598	0.096	0.973	0.000	1.568
%RSD		0.351	0.505	0.501	2.984	2.665	8.300	0.000	0.764
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	0.000	8.898	8.926	59.687%	-0.157	-0.155	2.198	1.712
2	20:04:06	0.000	7.929	8.236	60.280%	-0.141	-0.148	1.919	1.525
3	20:04:25	0.000	7.583	7.734	60.077%	-0.142	-0.155	1.828	1.515
X		0.000	8.137	8.299	60.015%	-0.147	-0.153	1.982	1.584
σ		0.000	0.682	0.598	0.301%	0.009	0.004	0.193	0.111
%RSD		0.000	8.377	7.209	0.502	6.202	2.691	9.732	7.012
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:47	69.705%	15.570	3.290	3.205	1334.000	1320.000	109.518%	108.413%
2	20:04:06	72.339%	14.650	3.180	3.042	1317.000	1307.000	112.390%	110.903%
3	20:04:25	73.008%	14.370	3.153	3.067	1317.000	1309.000	112.590%	112.256%
X		71.684%	14.860	3.208	3.105	1323.000	1312.000	111.499%	110.524%
σ		1.746%	0.628	0.073	0.088	9.557	6.971	1.719%	1.949%
%RSD		2.436	4.223	2.271	2.819	0.723	0.531	1.541	1.764
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:03:47	1.689	1.748	275.800	253.100	266.700	60.124%		
2	20:04:06	1.690	1.716	275.100	253.800	268.200	62.033%		
3	20:04:25	1.690	1.711	272.800	253.100	266.000	63.091%		
X		1.690	1.725	274.600	253.300	267.000	61.749%		
σ		0.000	0.020	1.571	0.392	1.098	1.504%		
%RSD		0.024	1.175	0.572	0.155	0.411	2.435		

180-37716-A-7-B

11/4/2014 8:06:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	60.837%	13.900	132.300	131.700	0.000	1603.000	63190.000	63700.000
2	20:07:37	59.738%	13.950	134.600	133.500	0.000	1603.000	63070.000	63360.000
3	20:07:56	59.081%	14.620	136.000	133.000	0.000	1611.000	64060.000	63960.000
X		59.885%	14.160	134.300	132.800	0.000	1606.000	63440.000	63670.000
σ		0.887%	0.403	1.912	0.927	0.000	4.555	536.600	300.200
%RSD		1.482	2.849	1.424	0.698	0.000	0.284	0.846	0.471
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	129100.000	3505.000	0.000	17380.000	12230.000	11810.000	64.018%	2426.000
2	20:07:37	129300.000	3494.000	0.000	17350.000	12230.000	11920.000	64.290%	2400.000
3	20:07:56	129600.000	3504.000	0.000	17340.000	12700.000	11890.000	63.483%	2410.000
X		129300.000	3501.000	0.000	17360.000	12390.000	11870.000	63.930%	2412.000
σ		232.800	6.190	0.000	18.070	270.900	57.610	0.411%	13.090
%RSD		0.180	0.177	0.000	0.104	2.187	0.485	0.642	0.542
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	344.300	286.400	23630.000	398200.000	425600.000	203.000	427.000	306.000
2	20:07:37	342.100	284.000	23530.000	393700.000	421300.000	201.700	419.500	300.700
3	20:07:56	343.300	283.800	23670.000	395600.000	423000.000	202.100	419.200	301.800
X		343.200	284.700	23610.000	395800.000	423300.000	202.300	421.900	302.800
σ		1.075	1.429	73.500	2288.000	2152.000	0.685	4.413	2.810
%RSD		0.313	0.502	0.311	0.578	0.508	0.338	1.046	0.928
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	310.500	767.500	782.900	19.290	1.624	4.782	0.000	146.900
2	20:07:37	304.500	768.700	786.400	18.840	1.436	5.677	0.000	147.000
3	20:07:56	306.100	775.200	788.500	19.360	1.467	4.990	0.000	149.500
X		307.000	770.500	785.900	19.160	1.509	5.150	0.000	147.800
σ		3.121	4.119	2.831	0.282	0.101	0.468	0.000	1.443
%RSD		1.017	0.535	0.360	1.471	6.665	9.093	0.000	0.976
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	0.000	6.783	6.762	57.759%	-0.005	-0.000	2.057	1.799
2	20:07:37	0.000	6.826	6.583	58.233%	-0.053	-0.021	2.034	1.739
3	20:07:56	0.000	6.862	7.044	58.258%	0.036	-0.057	2.017	1.649
X		0.000	6.824	6.796	58.083%	-0.007	-0.026	2.036	1.729
σ		0.000	0.039	0.233	0.281%	0.044	0.028	0.020	0.075
%RSD		0.000	0.579	3.423	0.484	611.400	110.600	1.002	4.353
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:18	67.611%	11.410	5.232	5.268	3473.000	3490.000	85.564%	84.293%
2	20:07:37	69.153%	11.640	5.373	5.259	3502.000	3480.000	87.661%	87.169%
3	20:07:56	70.035%	11.470	5.304	5.482	3489.000	3467.000	89.833%	89.010%
X		68.933%	11.510	5.303	5.336	3488.000	3479.000	87.686%	86.824%
σ		1.227%	0.121	0.071	0.126	14.730	11.710	2.135%	2.377%
%RSD		1.780	1.053	1.333	2.367	0.422	0.337	2.435	2.738
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:07:18	1.777	1.835	257.100	239.200	249.600	58.689%		
2	20:07:37	1.803	1.874	254.600	239.400	249.700	60.602%		
3	20:07:56	1.868	1.837	256.400	235.900	247.700	61.429%		
X		1.816	1.848	256.000	238.200	249.000	60.240%		
σ		0.047	0.022	1.271	2.007	1.121	1.406%		
%RSD		2.591	1.186	0.497	0.843	0.450	2.334		

MB 180-123572/1-A 11/4/2014 8:13:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	63.269%	-0.001	14.250	13.790	0.000	15.220	0.162	0.143
2	20:14:08	64.402%	-0.001	12.830	12.210	0.000	15.790	0.304	0.116
3	20:14:28	62.676%	0.013	11.660	11.850	0.000	16.630	-0.012	-0.014
X		63.449%	0.004	12.910	12.620	0.000	15.880	0.151	0.081
σ		0.877%	0.008	1.298	1.033	0.000	0.708	0.158	0.084
%RSD		1.382	221.600	10.050	8.183	0.000	4.455	104.800	103.000
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	1.251	2.378	0.000	-4.590	0.060	1.505	74.416%	0.202
2	20:14:08	1.097	1.924	0.000	-4.317	1.537	1.331	74.390%	0.201
3	20:14:28	1.050	1.319	0.000	-5.149	3.094	2.351	73.699%	0.112
X		1.133	1.874	0.000	-4.685	1.564	1.729	74.168%	0.172
σ		0.105	0.531	0.000	0.424	1.517	0.546	0.407%	0.052
%RSD		9.270	28.350	0.000	9.056	97.020	31.570	0.548	30.200
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	0.132	0.122	0.130	14.280	6.358	-0.005	-0.003	0.065
2	20:14:08	0.100	0.082	0.124	14.390	5.681	-0.005	0.016	0.044
3	20:14:28	-0.011	0.080	0.092	11.480	5.464	-0.006	0.005	-0.003
X		0.074	0.095	0.115	13.390	5.834	-0.005	0.006	0.036
σ		0.075	0.024	0.020	1.649	0.466	0.001	0.010	0.035
%RSD		101.200	25.010	17.620	12.320	7.990	14.750	162.200	97.700
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	0.014	0.240	0.253	0.222	0.338	0.401	0.000	0.003
2	20:14:08	0.026	0.206	0.290	0.081	0.496	0.234	0.000	-0.000
3	20:14:28	-0.007	0.231	0.375	-0.224	0.502	-0.996	0.000	0.002
X		0.011	0.225	0.306	0.026	0.445	-0.121	0.000	0.001
σ		0.017	0.018	0.062	0.228	0.093	0.763	0.000	0.002
%RSD		152.700	7.777	20.420	870.900	20.930	632.400	0.000	121.500
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	76.976%	-0.049	-0.059	75.513%	-0.337	-0.308	-0.057	-0.052
2	20:14:08	78.102%	-0.039	-0.021	76.586%	-0.331	-0.318	-0.083	-0.071
3	20:14:28	78.937%	-0.040	-0.031	76.964%	-0.319	-0.329	-0.056	-0.048
X		78.005%	-0.043	-0.037	76.354%	-0.329	-0.318	-0.065	-0.057
σ		0.984%	0.006	0.020	0.753%	0.009	0.011	0.015	0.012
%RSD		1.261	14.040	52.940	0.986	2.741	3.303	23.130	21.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:13:49	79.108%	-0.689	-0.139	-0.124	0.015	0.008	81.715%	81.750%
2	20:14:08	81.690%	-0.687	-0.122	-0.122	0.027	0.012	83.687%	83.821%
3	20:14:28	82.785%	-0.695	-0.128	-0.115	0.040	0.015	84.537%	84.758%
X		81.194%	-0.690	-0.129	-0.120	0.027	0.012	83.313%	83.443%
σ		1.888%	0.004	0.009	0.005	0.013	0.003	1.448%	1.539%
%RSD		2.325	0.625	6.770	3.859	45.850	29.460	1.737	1.845
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:13:49	-0.002	-0.002	0.067	0.082	0.077	84.614%		
2	20:14:08	-0.004	-0.005	0.068	0.090	0.073	84.886%		
3	20:14:28	-0.002	-0.003	0.093	0.079	0.076	85.749%		
X		-0.003	-0.003	0.076	0.083	0.075	85.083%		
σ		0.001	0.001	0.015	0.006	0.002	0.592%		
%RSD		53.130	43.780	19.400	6.743	2.745	0.696		

CRI 1370008 11/4/2014 8:20:36 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	65.568%	0.964	16.850	17.860	0.000	116.200	100.300	98.780
2	20:21:14	63.738%	1.070	18.150	16.580	0.000	117.600	102.500	99.240
3	20:21:34	63.807%	1.017	16.360	15.780	0.000	119.300	102.200	101.600
x		64.371%	101.693%	342.375%	334.791%	0.000	117.704%	101.647%	99.873%
σ		1.037%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.611	5.207	5.403	6.266	0.000	1.347	1.143	1.520
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	33.700	496.300	0.000	92.850	135.300	99.310	73.986%	5.281
2	20:21:14	34.610	504.100	0.000	93.010	110.900	101.400	73.516%	5.080
3	20:21:34	34.230	505.200	0.000	92.910	113.200	100.700	72.949%	5.550
x		113.939%	100.380%	0.000	92.926%	119.809%	100.470%	73.484%	106.073%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.519%	n/a
%RSD		1.347	0.965	0.000	0.085	11.230	1.073	0.707	4.446
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	0.860	1.930	4.834	59.580	52.950	0.474	1.002	2.067
2	20:21:14	0.910	2.001	4.919	59.730	54.710	0.474	1.027	1.945
3	20:21:34	0.914	1.863	5.018	60.100	53.700	0.478	1.059	1.847
x		89.486%	96.564%	98.464%	119.614%	107.576%	95.027%	102.940%	97.656%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.375	3.562	1.871	0.448	1.634	0.458	2.771	5.647
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	1.982	8.574	8.109	0.928	5.702	4.352	0.000	4.578
2	20:21:14	1.905	8.587	8.574	1.004	5.312	4.386	0.000	4.420
3	20:21:34	1.874	8.521	8.445	1.226	5.037	4.982	0.000	4.514
x		96.027%	171.213%	167.513%	105.253%	107.007%	91.470%	0.000	90.078%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.904	0.411	2.867	14.680	6.252	7.750	0.000	1.764
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	79.765%	4.518	4.568	70.225%	0.732	0.683	1.118	1.012
2	20:21:14	81.290%	4.495	4.477	70.738%	0.687	0.726	0.973	0.983
3	20:21:34	81.605%	4.718	4.899	70.923%	0.712	0.737	1.022	1.031
x		80.887%	91.542%	92.954%	70.629%	71.059%	71.534%	103.750%	100.854%
σ		0.984%	n/a	n/a	0.362%	n/a	n/a	n/a	n/a
%RSD		1.217	2.685	4.779	0.512	3.187	3.934	7.118	2.410
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:20:55	79.351%	3.943	1.782	1.785	9.700	9.764	80.486%	80.482%
2	20:21:14	80.760%	3.588	1.799	1.819	9.593	9.334	82.376%	83.386%
3	20:21:34	80.780%	4.099	1.833	1.857	9.263	9.566	83.900%	83.886%
x		80.297%	77.532%	90.230%	91.023%	95.188%	95.547%	82.254%	82.584%
σ		0.819%	n/a	n/a	n/a	n/a	n/a	1.710%	1.838%
%RSD		1.020	6.755	1.462	1.952	2.395	2.252	2.079	2.226
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:20:55	0.933	0.895	1.085	0.985	1.059	82.992%		
2	20:21:14	0.978	0.924	1.115	1.009	1.068	84.446%		
3	20:21:34	0.961	0.930	1.107	1.059	1.104	83.846%		
x		95.729%	91.656%	110.235%	101.760%	107.684%	83.761%		
σ		n/a	n/a	n/a	n/a	n/a	0.731%		
%RSD		2.347	2.059	1.397	3.692	2.190	0.872		

CCV 1369903 11/4/2014 8:24:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	60.853%	106.600	109.000	109.200	0.000	52180.000	51540.000	51030.000
2	20:24:36	60.792%	106.900	111.000	108.400	0.000	52230.000	51350.000	50750.000
3	20:24:55	57.977%	108.700	106.200	108.200	0.000	52060.000	51560.000	51220.000
x		59.874%	107.414%	108.738%	108.586%	0.000	104.310%	102.965%	102.000%
σ		1.643%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.744	1.046	2.235	0.484	0.000	0.164	0.225	0.466
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	543.500	5204.000	0.000	51900.000	50510.000	50440.000	68.443%	101.900
2	20:24:36	545.700	5173.000	0.000	51540.000	50910.000	50380.000	67.777%	99.320
3	20:24:55	552.400	5168.000	0.000	51780.000	50920.000	50590.000	66.229%	101.400
x		109.434%	103.638%	0.000	103.483%	101.556%	100.935%	67.483%	100.887%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.136%	n/a
%RSD		0.845	0.375	0.000	0.358	0.456	0.215	1.683	1.365
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	99.110	99.630	494.200	25000.000	24870.000	100.400	103.100	104.400
2	20:24:36	99.280	99.830	491.200	24760.000	24600.000	99.770	102.400	102.700
3	20:24:55	100.200	99.720	490.500	25080.000	24960.000	99.810	99.780	101.900
x		99.526%	99.727%	98.394%	99.793%	99.240%	100.000%	101.757%	102.984%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.583	0.100	0.400	0.684	0.764	0.367	1.707	1.222
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	103.900	104.200	104.900	103.400	104.600	106.000	0.000	100.500
2	20:24:36	102.700	104.600	106.300	102.800	102.800	106.200	0.000	99.700
3	20:24:55	102.300	105.200	107.400	102.800	103.400	101.900	0.000	100.200
x		102.955%	104.650%	106.220%	102.972%	103.597%	104.683%	0.000	100.103%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.799	0.484	1.170	0.334	0.849	2.334	0.000	0.385
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	70.241%	94.290	97.980	64.654%	101.400	101.200	102.100	101.900
2	20:24:36	70.963%	99.230	101.600	64.937%	102.100	101.500	101.000	100.500
3	20:24:55	70.842%	101.800	105.800	64.407%	101.300	101.000	101.500	99.510
x		70.682%	98.452%	101.780%	64.666%	101.599%	101.228%	101.524%	100.632%
σ		0.387%	n/a	n/a	0.265%	n/a	n/a	n/a	n/a
%RSD		0.547	3.889	3.824	0.410	0.436	0.268	0.541	1.172
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:24:17	71.200%	101.100	100.800	100.200	102.400	101.800	75.861%	76.274%
2	20:24:36	72.352%	99.860	101.700	100.300	100.300	100.200	77.676%	77.769%
3	20:24:55	73.099%	100.300	102.000	101.700	99.890	101.000	77.903%	78.572%
x		72.217%	100.450%	101.483%	100.742%	100.874%	100.995%	77.147%	77.539%
σ		0.957%	n/a	n/a	n/a	n/a	n/a	1.119%	1.166%
%RSD		1.325	0.647	0.595	0.857	1.342	0.810	1.451	1.504
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:24:17	92.160	91.840	91.430	91.520	91.400	80.951%		
2	20:24:36	96.630	96.850	95.870	96.660	95.960	78.700%		
3	20:24:55	99.390	99.110	99.070	99.440	99.270	77.676%		
x		96.058%	95.931%	95.458%	95.872%	95.541%	79.109%		
σ		n/a	n/a	n/a	n/a	n/a	1.675%		
%RSD		3.799	3.880	4.021	4.194	4.134	2.118		

CCB9 11/4/2014 8:30:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	76.186%	-0.003	12.230	11.670	0.000	19.590	4.294	4.080
2	20:30:51	74.522%	-0.003	9.250	11.480	0.000	20.490	4.085	4.205
3	20:31:10	76.059%	0.019	10.840	9.874	0.000	20.680	4.078	4.175
X		75.589%	0.004	10.770	11.010	0.000	20.250	4.152	4.153
σ		0.926%	0.013	1.491	0.987	0.000	0.582	0.123	0.065
%RSD		1.225	291.500	13.840	8.963	0.000	2.876	2.962	1.576
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	6.799	14.420	0.000	-3.811	42.880	35.290	86.059%	0.089
2	20:30:51	6.521	13.310	0.000	-3.775	32.940	36.540	85.508%	0.076
3	20:31:10	6.893	13.280	0.000	-3.435	35.750	36.360	84.865%	0.050
X		6.738	13.670	0.000	-3.674	37.190	36.060	85.477%	0.072
σ		0.193	0.650	0.000	0.207	5.127	0.679	0.598%	0.020
%RSD		2.869	4.759	0.000	5.648	13.790	1.884	0.699	27.300
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	0.027	0.069	0.143	13.960	11.460	0.002	0.091	-0.054
2	20:30:51	-0.013	0.096	0.152	11.850	10.600	0.010	0.094	-0.030
3	20:31:10	0.083	0.086	0.166	10.820	10.120	0.002	0.080	-0.054
X		0.032	0.084	0.154	12.210	10.730	0.004	0.088	-0.046
σ		0.048	0.014	0.012	1.599	0.677	0.004	0.008	0.014
%RSD		149.800	16.270	7.498	13.100	6.313	98.170	8.516	31.020
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	-0.059	1.822	1.924	-0.041	0.362	0.418	0.000	0.094
2	20:30:51	-0.041	1.725	1.828	0.001	0.229	0.359	0.000	0.093
3	20:31:10	-0.010	1.843	1.831	-0.261	0.267	-0.805	0.000	0.086
X		-0.037	1.797	1.861	-0.100	0.286	-0.009	0.000	0.091
σ		0.025	0.063	0.055	0.141	0.068	0.690	0.000	0.005
%RSD		67.550	3.500	2.940	140.000	23.830	7418.000	0.000	5.105
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	75.165%	0.202	0.266	75.160%	-0.316	-0.301	0.014	0.001
2	20:30:51	76.488%	0.188	0.173	75.629%	-0.319	-0.300	0.035	0.000
3	20:31:10	77.671%	0.126	0.178	76.129%	-0.317	-0.302	-0.009	-0.011
X		76.441%	0.172	0.206	75.640%	-0.318	-0.301	0.013	-0.004
σ		1.253%	0.040	0.052	0.485%	0.002	0.001	0.022	0.007
%RSD		1.640	23.320	25.450	0.641	0.592	0.278	161.700	191.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:30:32	77.749%	-0.436	0.007	0.020	0.043	0.056	79.163%	79.264%
2	20:30:51	80.261%	-0.475	0.037	0.020	0.035	0.027	81.088%	81.927%
3	20:31:10	81.292%	-0.465	0.002	0.054	0.074	0.038	82.545%	82.519%
X		79.767%	-0.459	0.015	0.032	0.051	0.041	80.932%	81.236%
σ		1.823%	0.021	0.019	0.020	0.021	0.015	1.696%	1.734%
%RSD		2.285	4.471	123.700	61.970	40.780	35.710	2.096	2.134
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:30:32	0.006	0.004	0.079	0.094	0.095	85.695%		
2	20:30:51	0.009	0.004	0.102	0.103	0.100	86.170%		
3	20:31:10	0.001	0.007	0.098	0.097	0.097	85.981%		
X		0.006	0.005	0.093	0.098	0.097	85.949%		
σ		0.004	0.002	0.012	0.005	0.003	0.239%		
%RSD		71.790	34.040	13.110	4.726	2.632	0.278		

## Performance Report

### Sample details

Sample name : ITUNE

Acquired at : 11/4/2014 7:52:10 AM

Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

### Mass Calibration verification

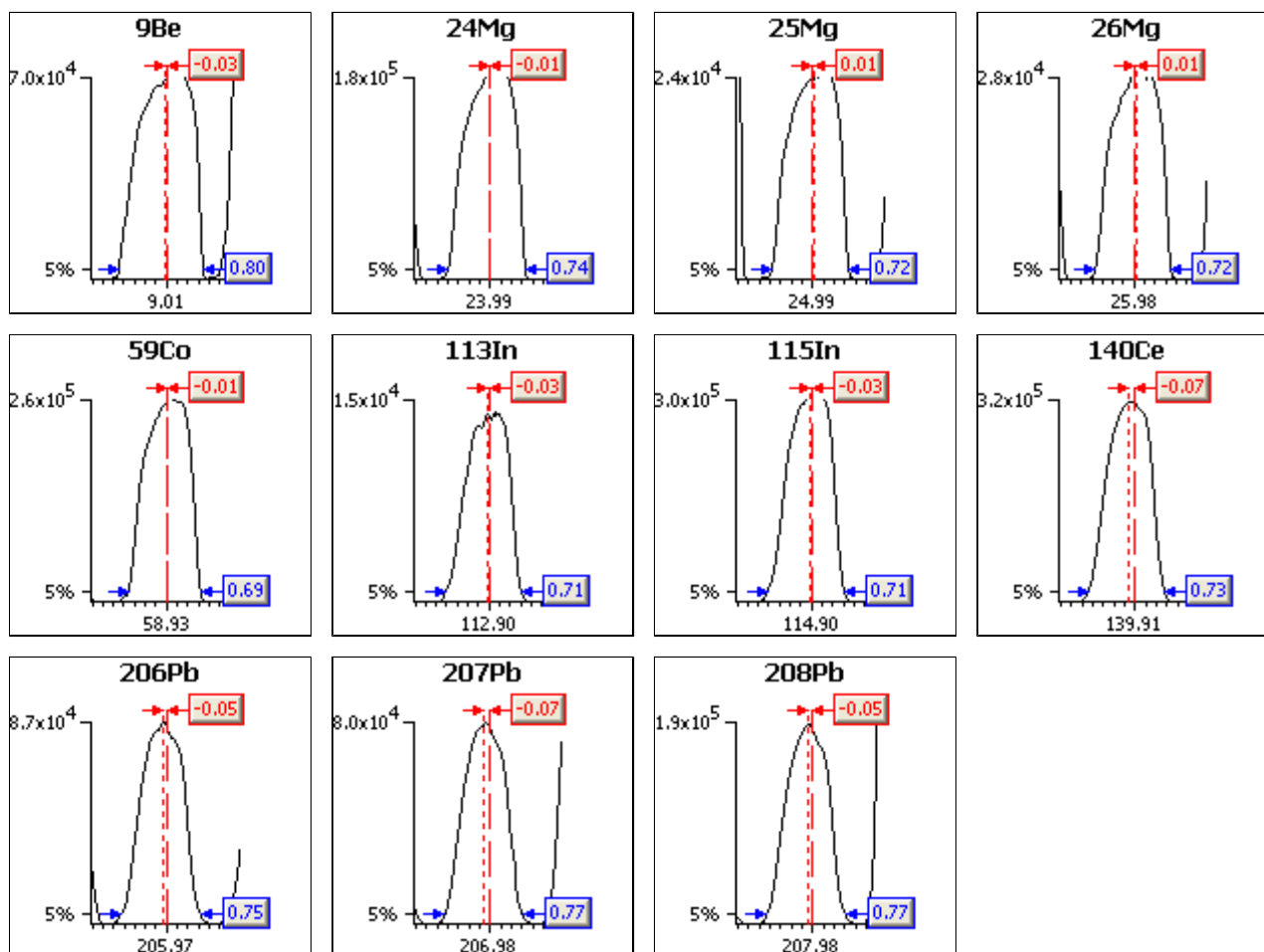
#### Acquisition parameters

Sweeps : 25

Dwell : 2.0 mSecs

Point spacing : 0.02 amu

Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.80	-0.03
24Mg	0.90	0.45	0.10	0.74	-0.01
25Mg	0.90	0.45	0.10	0.72	0.01
26Mg	0.90	0.45	0.10	0.72	0.01
59Co	0.90	0.45	0.10	0.69	-0.01
113In	0.90	0.45	0.10	0.71	-0.03
115In	0.90	0.45	0.10	0.71	-0.03
140Ce	0.90	0.45	0.10	0.73	-0.07
206Pb	0.90	0.45	0.10	0.75	-0.05
207Pb	0.90	0.45	0.10	0.77	-0.07
208Pb	0.90	0.45	0.10	0.77	-0.05



**Sample details**

Sample name : ITUNE

Acquired at : 11/4/2014 7:52:10 AM

Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

**Tune conditions**

Major		Minor		Global		Add. Gases	
Extraction	-129	Lens 2	-22.7	Standard resolution	n/a	He/H2	0.00
Lens 1	3.8	Lens 3	-196.1	High resolution	n/a	He/NH3	0.00
Focus	27.5	Forward power	1302	Analogue Detector	n/a		
D1	-46.3	Horizontal	57	PC Detector	n/a		
Pole Bias	3.0	Vertical	390				
Hexapole Bias	-3.0	D2	-198				
Nebuliser	0.83	DA	-80.0				
Sampling Depth	200	Cool	13.0				
		Auxiliary	1.00				

**Sensitivity and stability results****Acquisition parameters**

Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	7:52:57 AM	0	66591	183109	23490	27844	2648222	257081	5
2	7:54:23 AM	0	65756	179237	22638	27001	2542591	251984	8
3	7:55:48 AM	0	64556	178279	23031	26587	2505475	249153	7
4	7:57:13 AM	0	65562	179155	23390	27198	2526850	257043	9
5	7:58:38 AM	0	66624	181177	23368	27471	2556423	255444	7
x		0	65818	180191	23183	27220	2555912	254141	7
σ		0.11	852.63	1944.42	350.28	474.93	54970.99	3474.73	1.49
%RSD		119.523	1.295	1.079	1.511	1.745	2.151	1.367	20.328

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:52:57 AM	75	0	13754	315074	2176	309331	3359	88150
2	7:54:23 AM	78	0	13820	315434	2052	307918	3263	88281
3	7:55:48 AM	57	0	13563	313060	1917	307881	3288	87605
4	7:57:13 AM	67	1	13999	319184	1967	309810	3296	88868
5	7:58:38 AM	75	0	13825	316166	1977	309673	3367	88426
x		70	0	13792	315784	2018	308923	3314	88266
σ		8.25	0.14	156.93	2222.44	100.43	950.16	46.01	457.77
%RSD		11.736	35.334	1.138	0.704	4.977	0.308	1.388	0.519

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:52:57 AM	79442	190979	0
2	7:54:23 AM	79468	190830	0
3	7:55:48 AM	79334	190851	0
4	7:57:13 AM	79450	192848	0
5	7:58:38 AM	79665	191318	0
x		79472	191365	0
σ		120.22	851.51	0.04
%RSD		0.151	0.445	91.287

**Ratio results**

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:52:57 AM	0
2	7:54:23 AM	0

3	7:55:48 AM	0
4	7:57:13 AM	0
5	7:58:38 AM	0
$\bar{x}$		0.0107
$\sigma$		0.00
%RSD		1.1948

Result : The performance report passed.

## Dilution Corrected Concentrations

STD1 1388761

11/5/2014 3:06:11 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	100.410%	0.012	0.883	-0.215	0.000	-11.150	0.594	0.326
2	15:05:27	100.089%	0.050	-0.383	0.618	0.000	5.145	-1.429	-2.007
3	15:05:34	99.501%	-0.062	-0.501	-0.403	0.000	6.001	0.836	1.681
X		100.000%	-0.000	0.000	0.000	0.000	0.000	-0.000	-0.000
σ		0.461%	0.057	0.767	0.543	0.000	9.662	1.244	1.865
%RSD		0.461	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	-1.910	0.712	0.000	-0.617	1.569	0.589	101.480%	0.090
2	15:05:27	0.640	-0.759	0.000	4.386	4.159	-0.364	99.744%	-0.045
3	15:05:34	1.269	0.047	0.000	-3.769	-5.728	-0.225	98.776%	-0.045
X		0.000	0.000	0.000	0.000	-0.000	-0.000	100.000%	-0.000
σ		1.684	0.737	0.000	4.113	5.127	0.515	1.370%	0.078
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.370	0.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	0.064	-0.010	-0.016	-0.008	2.598	0.000	-0.073	0.071
2	15:05:27	-0.056	0.007	0.014	-0.044	-0.270	-0.010	0.126	-0.012
3	15:05:34	-0.007	0.003	0.002	0.051	-2.328	0.010	-0.053	-0.060
X		-0.000	0.000	-0.000	0.000	-0.000	-0.000	-0.000	0.000
σ		0.060	0.009	0.015	0.048	2.474	0.010	0.110	0.066
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	-0.042	-0.044	-0.034	0.021	-0.009	4.156	0.000	-0.003
2	15:05:27	0.056	0.085	-0.094	-0.018	-0.001	0.378	0.000	0.001
3	15:05:34	-0.015	-0.042	0.128	-0.003	0.010	-4.534	0.000	0.002
X		0.000	-0.000	0.000	0.000	0.000	-0.000	0.000	-0.000
σ		0.051	0.074	0.115	0.020	0.010	4.357	0.000	0.002
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	93.506%	0.001	-0.001	99.505%	0.009	-0.004	0.000	0.012
2	15:05:27	100.522%	-0.012	0.017	99.576%	-0.010	0.002	-0.000	-0.004
3	15:05:34	105.972%	0.011	-0.017	100.919%	0.000	0.002	-0.000	-0.008
X		100.000%	-0.000	0.000	100.000%	0.000	0.000	-0.000	0.000
σ		6.250%	0.012	0.017	0.797%	0.010	0.003	0.000	0.010
%RSD		6.250	0.000	0.000	0.797	0.000	0.000	0.000	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:19	99.019%	-0.073	-0.011	0.196	0.024	-0.003	98.548%	98.390%
2	15:05:27	100.076%	0.098	-0.047	-0.032	0.009	-0.003	100.500%	100.292%
3	15:05:34	100.905%	-0.024	0.058	-0.165	-0.033	0.005	100.952%	101.318%
X		100.000%	-0.000	-0.000	-0.000	-0.000	-0.000	100.000%	100.000%
σ		0.945%	0.088	0.053	0.183	0.030	0.005	1.277%	1.486%
%RSD		0.945	0.000	0.000	0.000	0.000	0.000	1.277	1.486
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:05:19	0.001	-0.003	-0.003	0.011	0.002	99.104%		
2	15:05:27	-0.003	0.000	-0.001	-0.003	-0.001	100.180%		
3	15:05:34	0.001	0.003	0.004	-0.008	-0.001	100.716%		
X		-0.000	-0.000	0.000	-0.000	-0.000	100.000%		
σ		0.002	0.003	0.004	0.010	0.002	0.821%		
%RSD		0.000	0.000	0.000	0.000	0.000	0.821		

STD2 1369901

11/5/2014 3:11:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	96.049%	199.300	1.332	2.067	0.000	98700.000	98520.000	98750.000
2	15:11:02	96.754%	199.000	1.120	1.423	0.000	100000.000	100000.000	100200.000
3	15:11:10	95.868%	201.600	4.813	2.758	0.000	101300.000	101400.000	101100.000
X		96.224%	200.000	2.422	2.083	0.000	100000.000	100000.000	100000.000
σ		0.469%	1.429	2.074	0.668	0.000	1276.000	1460.000	1163.000
%RSD		0.487	0.715	85.640	32.060	0.000	1.276	1.460	1.163
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	981.800	5.392	0.000	98120.000	98180.000	97990.000	96.599%	0.203
2	15:11:02	1002.000	2.732	0.000	100400.000	100300.000	100400.000	92.911%	0.344
3	15:11:10	1017.000	2.657	0.000	101500.000	101500.000	101600.000	90.673%	0.377
X		1000.000	3.594	0.000	100000.000	100000.000	100000.000	93.394%	0.308
σ		17.490	1.558	0.000	1722.000	1695.000	1846.000	2.992%	0.092
%RSD		1.749	43.360	0.000	1.722	1.695	1.846	3.204	30.010
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	196.400	197.100	982.400	49280.000	49600.000	197.700	197.600	199.000
2	15:11:02	200.500	201.200	1004.000	50290.000	50060.000	200.500	201.700	200.500
3	15:11:10	203.100	201.800	1014.000	50440.000	50340.000	201.800	200.700	200.600
X		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		3.378	2.558	16.080	630.300	374.300	2.088	2.175	0.902
%RSD		1.689	1.279	1.608	1.261	0.749	1.044	1.088	0.451
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	197.700	201.700	197.500	201.600	204.300	207.200	0.000	203.600
2	15:11:02	202.200	199.800	202.400	200.000	198.000	195.200	0.000	200.900
3	15:11:10	200.000	198.500	200.100	198.400	197.700	197.500	0.000	195.400
X		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		2.255	1.631	2.453	1.616	3.708	6.384	0.000	4.184
%RSD		1.128	0.815	1.227	0.808	1.854	3.192	0.000	2.092
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	94.418%	0.048	0.154	79.835%	200.400	198.800	199.000	200.000
2	15:11:02	96.080%	0.154	0.296	78.815%	200.100	201.300	201.700	201.300
3	15:11:10	97.646%	0.217	0.210	78.949%	199.500	199.900	199.300	198.800
X		96.048%	0.139	0.220	79.200%	200.000	200.000	200.000	200.000
σ		1.614%	0.085	0.071	0.554%	0.430	1.257	1.499	1.257
%RSD		1.681	61.210	32.350	0.700	0.215	0.629	0.749	0.629
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:54	81.140%	-0.016	0.052	-0.353	196.900	198.400	89.010%	87.962%
2	15:11:02	80.756%	-0.015	0.066	-0.501	205.000	200.800	87.090%	88.460%
3	15:11:10	80.699%	-0.055	0.020	-0.635	198.100	200.800	88.721%	88.078%
X		80.865%	-0.029	0.046	-0.496	200.000	200.000	88.274%	88.167%
σ		0.240%	0.023	0.024	0.141	4.368	1.392	1.035%	0.260%
%RSD		0.297	79.810	51.970	28.370	2.184	0.696	1.173	0.295
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:10:54	196.500	197.500	197.400	197.900	197.500	89.542%		
2	15:11:02	203.100	200.700	201.200	201.200	201.200	87.935%		
3	15:11:10	200.400	201.800	201.300	200.900	201.300	88.612%		
X		200.000	200.000	200.000	200.000	200.000	88.696%		
σ		3.283	2.209	2.233	1.860	2.192	0.807%		
%RSD		1.642	1.104	1.116	0.930	1.096	0.910		

STD3 1369902

11/5/2014 3:16:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	108.304%	0.248	194.400	198.000	0.000	100.000	80.710	73.270
2	15:16:05	106.505%	0.149	203.000	202.100	0.000	129.800	107.800	105.100
3	15:16:13	104.855%	0.251	202.600	199.900	0.000	203.800	157.800	152.800
X		106.555%	0.216	200.000	200.000	0.000	144.500	115.400	110.400
σ		1.725%	0.058	4.844	2.015	0.000	53.420	39.120	40.030
%RSD		1.619	26.850	2.422	1.008	0.000	36.960	33.890	36.260
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	34.390	9736.000	0.000	142.900	94.230	134.300	92.928%	191.500
2	15:16:05	40.760	10060.000	0.000	145.000	96.790	141.000	90.519%	203.800
3	15:16:13	51.060	10210.000	0.000	129.600	122.000	136.500	89.588%	204.600
X		42.070	10000.000	0.000	139.200	104.300	137.200	91.012%	200.000
σ		8.414	240.700	0.000	8.350	15.360	3.420	1.724%	7.345
%RSD		20.000	2.407	0.000	6.000	14.720	2.492	1.894	3.673
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	0.026	0.290	1.771	103.700	94.970	0.085	0.286	0.592
2	15:16:05	0.191	0.379	1.754	118.000	104.500	0.207	0.230	0.590
3	15:16:13	0.260	0.504	1.684	154.900	136.000	0.325	0.437	0.863
X		0.159	0.391	1.736	125.500	111.800	0.206	0.318	0.682
σ		0.120	0.108	0.046	26.410	21.460	0.120	0.107	0.157
%RSD		75.460	27.540	2.636	21.030	19.190	58.190	33.590	23.060
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	0.676	2.746	2.112	0.247	0.585	1.578	0.000	0.426
2	15:16:05	0.972	2.390	2.307	0.277	0.288	0.270	0.000	0.582
3	15:16:13	0.870	2.812	2.810	0.368	0.445	-1.596	0.000	0.978
X		0.839	2.649	2.410	0.297	0.440	0.084	0.000	0.662
σ		0.151	0.227	0.360	0.063	0.149	1.595	0.000	0.285
%RSD		17.940	8.567	14.950	21.220	33.820	1902.000	0.000	43.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	96.203%	203.500	200.400	85.243%	0.140	0.129	0.407	5.249
2	15:16:05	99.650%	197.400	199.200	86.411%	0.168	0.171	0.327	5.233
3	15:16:13	102.769%	199.100	200.400	87.003%	0.185	0.253	0.399	5.109
X		99.541%	200.000	200.000	86.219%	0.164	0.184	0.378	5.197
σ		3.285%	3.172	0.684	0.896%	0.022	0.063	0.044	0.077
%RSD		3.300	1.586	0.342	1.039	13.660	33.990	11.640	1.472
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:15:57	86.031%	200.200	200.300	199.400	0.385	0.534	91.580%	91.006%
2	15:16:05	87.323%	199.300	198.700	199.600	0.348	0.652	92.714%	92.688%
3	15:16:13	87.774%	200.400	201.000	201.000	0.471	0.594	93.581%	92.749%
X		87.043%	200.000	200.000	200.000	0.402	0.593	92.625%	92.148%
σ		0.905%	0.595	1.187	0.869	0.063	0.059	1.004%	0.989%
%RSD		1.040	0.298	0.593	0.435	15.780	9.945	1.083	1.074
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:15:57	0.182	0.144	0.614	0.734	0.659	94.355%		
2	15:16:05	0.210	0.175	0.784	0.699	0.757	95.719%		
3	15:16:13	0.274	0.283	1.011	1.005	1.033	96.552%		
X		0.222	0.201	0.803	0.812	0.816	95.542%		
σ		0.047	0.073	0.199	0.168	0.194	1.109%		
%RSD		21.040	36.540	24.810	20.630	23.720	1.161		

ICV 1369904 11/5/2014 3:21:56 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	102.416%	73.610	88.070	85.370	0.000	40100.000	39410.000	39360.000
2	15:21:12	100.545%	75.600	91.240	88.800	0.000	40550.000	39880.000	39950.000
3	15:21:20	100.446%	78.210	84.120	89.360	0.000	40990.000	40150.000	40460.000
X		101.136%	94.760%	109.764%	109.806%	0.000	101.360%	99.533%	99.813%
σ		1.110%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.097	3.047	4.063	2.462	0.000	1.096	0.930	1.378
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	406.400	4933.000	0.000	41360.000	38180.000	39110.000	90.182%	79.910
2	15:21:12	430.700	4371.000	0.000	42150.000	39320.000	40280.000	89.239%	85.110
3	15:21:20	452.400	5135.000	0.000	42320.000	40130.000	40680.000	88.844%	85.530
X		107.460%	120.330%	0.000	104.851%	98.024%	100.047%	89.422%	104.395%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.688%	n/a
%RSD		5.345	8.229	0.000	1.222	2.505	2.039	0.769	3.747
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	80.610	83.240	393.400	20330.000	19670.000	81.120	84.300	82.780
2	15:21:12	81.720	82.890	404.200	20330.000	19690.000	82.360	82.970	82.150
3	15:21:20	82.800	84.740	413.200	20470.000	19910.000	82.250	83.140	81.650
X		102.139%	104.531%	100.893%	101.892%	98.782%	102.386%	104.338%	102.738%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.340	1.172	2.459	0.393	0.686	0.842	0.864	0.687
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	82.740	81.510	82.690	81.650	77.340	76.860	0.000	79.340
2	15:21:12	81.210	82.080	79.280	80.130	79.850	76.970	0.000	78.720
3	15:21:20	82.070	83.390	81.670	79.820	78.260	75.310	0.000	77.990
X		102.507%	102.909%	101.519%	100.669%	98.102%	95.473%	0.000	98.353%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.936	1.170	2.158	1.216	1.619	1.216	0.000	0.856
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	96.362%	84.620	84.850	78.854%	80.800	80.780	79.890	83.510
2	15:21:12	99.316%	83.920	85.800	79.898%	79.430	79.610	80.820	80.590
3	15:21:20	100.437%	82.230	84.470	79.549%	79.550	80.310	80.480	82.640
X		98.705%	104.485%	106.303%	79.434%	99.906%	100.290%	100.497%	102.808%
σ		2.105%	n/a	n/a	0.531%	n/a	n/a	n/a	n/a
%RSD		2.133	1.464	0.806	0.669	0.949	0.733	0.588	1.824
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:05	80.390%	83.330	84.790	85.460	81.250	81.220	87.031%	87.277%
2	15:21:12	82.124%	82.190	82.950	83.350	79.130	81.620	89.137%	89.786%
3	15:21:20	82.310%	83.050	83.780	83.100	79.960	81.210	88.895%	88.521%
X		81.608%	103.570%	104.802%	104.962%	100.139%	101.684%	88.355%	88.528%
σ		1.059%	n/a	n/a	n/a	n/a	n/a	1.153%	1.255%
%RSD		1.297	0.718	1.101	1.545	1.336	0.286	1.305	1.417
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:21:05	81.710	80.830	81.420	77.050	79.130	91.475%		
2	15:21:12	81.470	80.890	82.090	79.200	79.970	91.342%		
3	15:21:20	82.720	81.150	83.800	78.980	81.200	91.376%		
X		102.463%	101.194%	103.044%	98.013%	100.124%	91.398%		
σ		n/a	n/a	n/a	n/a	n/a	0.069%		
%RSD		0.809	0.209	1.490	1.510	1.301	0.076		

ICB 11/5/2014 3:27:04 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	107.634%	0.078	-2.098	-3.657	0.000	-29.800	7.666	2.709
2	15:26:19	107.792%	0.004	-1.904	-4.510	0.000	-14.460	5.492	5.399
3	15:26:26	104.348%	0.119	-2.279	-3.878	0.000	-16.480	3.950	6.482
X		106.591%	0.067	-2.094	-4.015	0.000	-20.250	5.703	4.863
σ		1.944%	0.059	0.188	0.443	0.000	8.338	1.867	1.943
%RSD		1.824	87.330	8.963	11.020	0.000	41.180	32.750	39.950
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	2.494	19.520	0.000	52.880	3.145	11.180	99.937%	0.073
2	15:26:19	4.171	15.780	0.000	54.340	7.112	10.060	97.449%	0.139
3	15:26:26	4.769	12.950	0.000	47.560	9.237	9.500	97.013%	0.079
X		3.812	16.080	0.000	51.590	6.498	10.250	98.133%	0.097
σ		1.179	3.296	0.000	3.566	3.092	0.854	1.577%	0.036
%RSD		30.940	20.490	0.000	6.912	47.580	8.335	1.607	37.490
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	-0.152	0.033	0.057	14.350	1.971	-0.031	-0.056	-0.176
2	15:26:19	-0.015	0.038	0.105	11.660	4.484	0.005	0.000	-0.275
3	15:26:26	-0.062	0.026	0.096	9.425	-1.637	-0.014	0.072	-0.416
X		-0.076	0.033	0.086	11.810	1.606	-0.014	0.006	-0.289
σ		0.069	0.006	0.025	2.465	3.077	0.018	0.064	0.121
%RSD		91.190	18.740	29.260	20.870	191.600	133.600	1156.000	41.750
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	0.014	-0.046	0.150	0.015	0.166	-0.032	0.000	0.034
2	15:26:19	-0.010	-0.036	0.104	-0.019	0.209	-3.886	0.000	0.019
3	15:26:26	-0.000	-0.141	-0.077	-0.015	0.086	-1.996	0.000	0.007
X		0.001	-0.074	0.059	-0.006	0.154	-1.971	0.000	0.020
σ		0.012	0.058	0.120	0.019	0.062	1.927	0.000	0.014
%RSD		1166.000	78.200	202.600	303.000	40.550	97.750	0.000	67.680
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	106.375%	0.669	0.667	90.294%	-0.030	-0.012	0.030	-0.014
2	15:26:19	110.595%	0.592	0.764	91.187%	-0.043	-0.027	-0.001	0.007
3	15:26:26	112.541%	0.520	0.581	91.841%	-0.049	-0.021	0.009	0.007
X		109.837%	0.594	0.671	91.107%	-0.041	-0.020	0.013	0.000
σ		3.152%	0.075	0.092	0.777%	0.010	0.008	0.016	0.012
%RSD		2.870	12.610	13.650	0.852	23.380	37.420	122.700	7725.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:26:11	89.691%	-0.354	-0.237	-0.850	-0.033	0.042	92.709%	92.746%
2	15:26:19	90.957%	-0.150	-0.227	-0.908	-0.003	0.041	95.742%	95.285%
3	15:26:26	91.640%	-0.339	-0.257	-0.965	-0.003	0.007	95.393%	94.019%
X		90.763%	-0.281	-0.240	-0.908	-0.013	0.030	94.614%	94.017%
σ		0.989%	0.114	0.015	0.057	0.018	0.020	1.660%	1.269%
%RSD		1.089	40.460	6.322	6.324	135.300	67.800	1.754	1.350
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:26:11	0.018	0.022	0.025	0.030	0.036	95.847%		
2	15:26:19	0.028	0.014	0.027	0.031	0.030	95.386%		
3	15:26:26	0.018	0.010	0.017	0.000	0.020	96.234%		
X		0.021	0.015	0.023	0.020	0.028	95.822%		
σ		0.006	0.006	0.005	0.017	0.008	0.425%		
%RSD		27.800	39.600	23.060	85.050	28.310	0.443		

CRI 1370008 11/5/2014 3:47:53 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	96.824%	0.919	-2.400	-4.039	0.000	103.400	98.690	96.820
2	15:47:09	95.107%	0.852	-2.666	-3.239	0.000	127.800	103.000	92.280
3	15:47:17	92.479%	0.780	-3.021	-3.072	0.000	139.700	102.700	101.300
X		94.804%	85.029%	-53.912%	-69.001%	0.000	154.564%	101.467%	96.795%
σ		2.189%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.308	8.165	11.570	14.970	0.000	14.950	2.378	4.653
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	30.170	521.400	0.000	97.790	80.740	88.120	93.321%	4.728
2	15:47:09	33.610	533.500	0.000	107.400	98.460	89.510	92.101%	4.857
3	15:47:17	34.790	551.400	0.000	106.700	82.150	94.760	89.979%	4.886
X		109.531%	107.090%	0.000	103.966%	87.118%	90.798%	91.800%	96.473%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.691%	n/a
%RSD		7.305	2.821	0.000	5.157	11.300	3.854	1.842	1.744
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	0.948	1.940	4.601	54.400	36.860	0.439	1.064	1.785
2	15:47:09	0.990	1.881	4.607	54.040	35.980	0.522	0.932	1.832
3	15:47:17	0.878	2.037	4.806	57.110	40.550	0.534	0.762	1.872
X		93.863%	97.635%	93.427%	110.368%	75.593%	99.623%	91.945%	91.482%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.993	4.040	2.504	3.045	6.420	10.420	16.480	2.370
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	1.972	4.615	4.807	0.808	4.640	2.931	0.000	4.549
2	15:47:09	1.670	4.918	4.803	0.954	4.781	4.944	0.000	4.633
3	15:47:17	2.143	4.741	5.309	0.898	3.973	6.139	0.000	4.393
X		96.413%	95.158%	99.460%	88.684%	89.294%	93.431%	0.000	90.499%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		12.420	3.193	5.847	8.307	9.666	34.700	0.000	2.692
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	101.580%	5.577	5.996	83.068%	0.802	0.979	1.002	1.133
2	15:47:09	103.797%	5.625	6.327	84.336%	0.947	0.953	1.056	1.074
3	15:47:17	105.002%	5.806	6.122	84.029%	1.070	0.842	1.277	1.215
X		103.460%	113.387%	122.968%	83.811%	93.950%	92.452%	111.159%	114.064%
σ		1.736%	n/a	n/a	0.662%	n/a	n/a	n/a	n/a
%RSD		1.678	2.135	2.724	0.790	14.250	7.850	13.080	6.181
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:01	79.493%	4.776	1.592	0.852	9.887	9.578	90.558%	90.004%
2	15:47:09	80.579%	17.960	1.459	0.942	10.120	9.847	92.084%	90.605%
3	15:47:17	80.034%	5.137	1.595	0.856	9.796	10.160	89.875%	89.583%
X		80.035%	185.830%	77.434%	44.167%	99.358%	98.608%	90.839%	90.064%
σ		0.543%	n/a	n/a	n/a	n/a	n/a	1.131%	0.514%
%RSD		0.679	80.830	4.999	5.738	1.706	2.943	1.245	0.570
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:47:01	0.988	0.929	0.971	1.006	0.971	95.199%		
2	15:47:09	0.899	0.906	0.957	0.936	0.939	95.874%		
3	15:47:17	1.083	0.958	1.028	1.038	1.026	96.361%		
X		98.998%	93.089%	98.552%	99.366%	97.841%	95.811%		
σ		n/a	n/a	n/a	n/a	n/a	0.584%		
%RSD		9.271	2.847	3.827	5.261	4.509	0.609		



ICSA 1369923

11/5/2014 3:54:18 PM

QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	76.926%	-0.020	-8.381	-8.576	0.000	103900.000	96410.000	97210.000
2	15:53:34	76.596%	-0.127	-10.320	-8.287	0.000	104000.000	96480.000	97080.000
3	15:53:42	74.385%	-0.057	-7.178	-8.449	0.000	106300.000	97680.000	97840.000
X		75.969%	-0.068	-8.627	-8.437	0.000	104700.000	96860.000	97380.000
σ		1.382%	0.055	1.587	0.144	0.000	1366.000	715.800	407.400
%RSD		1.819	80.150	18.390	1.712	0.000	1.304	0.739	0.418
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	94710.000	39.380	0.000	106900.000	109300.000	110300.000	72.131%	2350.000
2	15:53:34	95230.000	39.750	0.000	108600.000	111000.000	111900.000	70.736%	2402.000
3	15:53:42	96510.000	39.090	0.000	109100.000	112000.000	113500.000	69.287%	2416.000
X		95480.000	39.410	0.000	108200.000	110800.000	111900.000	70.718%	2389.000
σ		924.700	0.331	0.000	1173.000	1358.000	1581.000	1.422%	35.190
%RSD		0.969	0.840	0.000	1.084	1.226	1.413	2.010	1.473
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	1.345	1.861	1.870	100500.000	105900.000	0.116	0.391	1.500
2	15:53:34	1.506	1.923	1.804	100800.000	105800.000	0.236	0.360	1.333
3	15:53:42	1.455	2.061	1.762	101300.000	106500.000	0.142	0.458	1.212
X		1.436	1.948	1.812	100900.000	106100.000	0.165	0.403	1.348
σ		0.082	0.102	0.055	415.500	405.200	0.063	0.050	0.144
%RSD		5.717	5.251	3.019	0.412	0.382	38.510	12.390	10.700
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	2.771	6.670	3.858	0.332	0.249	0.137	0.000	1.025
2	15:53:34	2.941	5.775	4.540	0.274	0.089	-1.543	0.000	1.009
3	15:53:42	2.441	4.785	4.162	0.252	0.068	1.077	0.000	0.958
X		2.718	5.743	4.187	0.286	0.135	-0.109	0.000	0.997
σ		0.254	0.943	0.342	0.042	0.099	1.327	0.000	0.035
%RSD		9.354	16.420	8.165	14.520	73.100	1213.000	0.000	3.487
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	84.889%	2170.000	2264.000	63.710%	0.664	0.755	1.324	0.816
2	15:53:34	86.581%	2132.000	2265.000	63.910%	0.907	0.760	1.068	0.692
3	15:53:42	86.648%	2142.000	2255.000	63.489%	0.739	0.841	1.321	0.825
X		86.039%	2148.000	2261.000	63.703%	0.770	0.785	1.237	0.777
σ		0.997%	19.760	5.612	0.211%	0.125	0.048	0.147	0.074
%RSD		1.158	0.920	0.248	0.331	16.170	6.151	11.880	9.547
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:27	67.096%	0.194	-0.164	-0.954	0.417	0.559	81.139%	80.880%
2	15:53:34	67.456%	0.095	-0.184	-0.858	0.298	0.307	80.936%	81.372%
3	15:53:42	66.346%	0.018	-0.126	-0.926	0.361	0.331	81.092%	82.175%
X		66.966%	0.102	-0.158	-0.913	0.359	0.399	81.055%	81.476%
σ		0.567%	0.088	0.030	0.049	0.059	0.139	0.106%	0.654%
%RSD		0.846	86.530	18.890	5.417	16.480	34.910	0.131	0.802
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:53:27	0.048	0.052	0.731	0.736	0.725	81.650%		
2	15:53:34	0.039	0.064	0.761	0.782	0.773	81.903%		
3	15:53:42	0.039	0.056	0.685	0.709	0.750	82.147%		
X		0.042	0.057	0.726	0.743	0.749	81.900%		
σ		0.006	0.006	0.038	0.037	0.024	0.249%		
%RSD		13.500	11.050	5.253	4.945	3.201	0.303		

ICSAB 1369924

11/5/2014 3:59:26 PM

QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	71.977%	19.500	37.360	45.280	0.000	105700.000	98090.000	98830.000
2	15:58:42	73.260%	18.560	44.880	41.780	0.000	106400.000	99520.000	100400.000
3	15:58:50	70.928%	20.010	40.310	43.660	0.000	108500.000	100500.000	100500.000
X		72.055%	96.784%	81.701%	87.155%	0.000	106.866%	99.384%	99.922%
σ		1.168%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.621	3.786	9.275	4.019	0.000	1.354	1.238	0.950
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	96470.000	606.600	0.000	105600.000	103900.000	105700.000	67.558%	2226.000
2	15:58:42	98030.000	620.800	0.000	110700.000	109200.000	111400.000	65.175%	2348.000
3	15:58:50	98800.000	629.800	0.000	111400.000	110600.000	112700.000	65.375%	2363.000
X		97.767%	123.810%	0.000	109.234%	107.890%	109.918%	66.036%	115.611%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.322%	n/a
%RSD		1.212	1.894	0.000	2.931	3.287	3.406	2.002	3.257
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	19.930	21.750	20.070	105000.000	109300.000	20.110	20.880	21.340
2	15:58:42	20.220	22.050	21.120	107800.000	112400.000	20.930	20.960	21.760
3	15:58:50	20.540	21.990	21.650	107300.000	112100.000	20.620	20.620	20.810
X		101.168%	109.649%	104.728%	106.696%	111.287%	102.754%	104.111%	106.532%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.511	0.724	3.824	1.398	1.537	2.015	0.872	2.228
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	23.720	25.990	24.890	20.140	50.370	48.560	0.000	20.370
2	15:58:42	23.310	26.710	26.270	19.660	49.600	48.320	0.000	20.050
3	15:58:50	23.790	26.910	26.840	19.590	48.780	44.200	0.000	20.610
X		118.020%	106.146%	103.998%	98.968%	99.170%	94.052%	0.000	101.707%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.098	1.810	3.870	1.517	1.606	5.216	0.000	1.387
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	69.864%	2341.000	2378.000	60.881%	20.180	19.440	22.540	23.480
2	15:58:42	71.631%	2335.000	2388.000	60.624%	20.170	20.050	20.710	24.020
3	15:58:50	70.901%	2320.000	2376.000	60.635%	20.130	19.990	20.590	23.770
X		70.799%	116.594%	119.024%	60.713%	100.798%	99.113%	106.384%	118.782%
σ		0.888%	n/a	n/a	0.146%	n/a	n/a	n/a	n/a
%RSD		1.254	0.456	0.272	0.240	0.145	1.700	5.138	1.149
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:34	64.330%	101.200	20.650	19.130	18.430	20.040	79.170%	79.115%
2	15:58:42	63.616%	101.600	20.270	19.610	20.270	19.970	78.150%	78.717%
3	15:58:50	64.179%	99.840	20.350	19.500	19.080	18.920	78.205%	78.675%
X		64.042%	100.871%	102.096%	97.069%	96.287%	98.226%	78.509%	78.836%
σ		0.376%	n/a	n/a	n/a	n/a	n/a	0.574%	0.243%
%RSD		0.588	0.901	0.979	1.281	4.850	3.196	0.731	0.308
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:58:34	19.760	19.090	20.460	20.820	20.750	79.212%		
2	15:58:42	20.050	19.430	20.040	20.730	20.420	79.570%		
3	15:58:50	19.560	19.320	20.060	20.480	20.440	79.798%		
X		98.954%	96.398%	100.932%	103.368%	102.686%	79.527%		
σ		n/a	n/a	n/a	n/a	n/a	0.296%		
%RSD		1.240	0.908	1.159	0.849	0.901	0.372		

CCV 1369903 11/5/2014 4:05:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	78.648%	98.010	105.600	101.500	0.000	52380.000	49300.000	49550.000
2	16:04:18	76.743%	101.000	101.900	104.800	0.000	53460.000	50500.000	51020.000
3	16:04:25	78.306%	100.700	102.900	99.890	0.000	53060.000	50740.000	50910.000
X		77.899%	99.926%	103.486%	102.063%	0.000	105.933%	100.360%	100.989%
σ		1.016%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.304	1.668	1.849	2.473	0.000	1.026	1.545	1.625
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	509.300	6079.000	0.000	52750.000	50190.000	51090.000	69.846%	104.700
2	16:04:18	522.900	6358.000	0.000	54670.000	52350.000	53780.000	68.603%	110.900
3	16:04:25	515.900	6315.000	0.000	55100.000	53110.000	54310.000	68.159%	110.100
X		103.203%	125.014%	0.000	108.347%	103.773%	106.120%	68.869%	108.569%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.875%	n/a
%RSD		1.316	2.402	0.000	2.310	2.919	3.256	1.270	3.122
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	100.800	101.800	502.300	25420.000	24830.000	100.600	102.000	97.860
2	16:04:18	102.200	103.600	524.500	25710.000	24770.000	101.600	99.380	97.690
3	16:04:25	103.800	104.900	536.500	25950.000	25060.000	102.900	101.500	100.100
X		102.273%	103.418%	104.217%	102.770%	99.543%	101.683%	100.956%	98.564%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.461	1.520	3.331	1.014	0.608	1.141	1.374	1.386
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	101.000	99.030	100.300	97.150	96.940	98.050	0.000	91.760
2	16:04:18	98.970	98.010	99.400	94.410	95.230	86.730	0.000	91.660
3	16:04:25	101.000	98.350	99.470	94.640	92.960	98.860	0.000	90.480
X		100.329%	98.463%	99.725%	95.400%	95.041%	94.547%	0.000	91.302%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.173	0.525	0.509	1.594	2.100	7.171	0.000	0.778
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	82.000%	109.700	109.500	66.315%	99.690	100.500	102.700	105.200
2	16:04:18	83.532%	107.300	108.000	67.222%	98.520	100.500	101.000	103.700
3	16:04:25	84.317%	106.000	107.900	67.311%	100.600	100.200	101.100	103.600
X		83.283%	107.679%	108.467%	66.949%	99.603%	100.409%	101.610%	104.196%
σ		1.179%	n/a	n/a	0.551%	n/a	n/a	n/a	n/a
%RSD		1.415	1.737	0.820	0.823	1.045	0.188	0.935	0.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:04:11	66.447%	101.100	101.300	102.400	101.400	97.030	78.101%	79.090%
2	16:04:18	67.741%	100.000	101.800	100.500	97.930	99.050	79.935%	79.429%
3	16:04:25	66.978%	100.700	101.700	102.600	99.700	99.950	79.217%	79.559%
X		67.055%	100.606%	101.597%	101.833%	99.672%	98.674%	79.084%	79.359%
σ		0.650%	n/a	n/a	n/a	n/a	n/a	0.924%	0.242%
%RSD		0.970	0.524	0.279	1.122	1.732	1.516	1.169	0.305
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:04:11	101.900	101.100	102.900	103.400	102.600	82.543%		
2	16:04:18	103.400	101.800	103.500	103.800	102.900	82.695%		
3	16:04:25	101.500	99.500	100.600	102.500	102.200	83.766%		
X		102.261%	100.801%	102.334%	103.257%	102.589%	83.001%		
σ		n/a	n/a	n/a	n/a	n/a	0.667%		
%RSD		0.950	1.169	1.484	0.654	0.342	0.803		

CCB1 11/5/2014 4:15:14 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	93.508%	-0.174	-5.570	-5.741	0.000	60.820	11.230	9.790
2	16:14:29	87.106%	-0.142	-6.791	-6.365	0.000	82.960	16.350	11.260
3	16:14:36	89.748%	-0.162	-7.690	-8.662	0.000	71.230	10.620	11.490
X		90.121%	-0.159	-6.683	-6.923	0.000	71.670	12.730	10.850
σ		3.217%	0.016	1.064	1.538	0.000	11.080	3.145	0.924
%RSD		3.570	9.954	15.920	22.220	0.000	15.460	24.700	8.516
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	4.668	29.440	0.000	57.830	9.029	11.600	86.181%	0.151
2	16:14:29	5.582	18.160	0.000	57.480	0.567	10.670	83.619%	0.136
3	16:14:36	7.768	10.710	0.000	57.100	12.040	11.600	82.997%	0.281
X		6.006	19.440	0.000	57.470	7.213	11.290	84.266%	0.189
σ		1.593	9.429	0.000	0.366	5.950	0.535	1.687%	0.080
%RSD		26.530	48.510	0.000	0.637	82.490	4.738	2.003	42.150
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	-0.063	0.024	0.179	13.310	-0.274	-0.032	-0.022	-0.266
2	16:14:29	-0.067	0.060	0.194	13.300	-1.206	0.009	-0.059	-0.189
3	16:14:36	-0.102	0.037	0.138	12.990	3.116	0.018	0.005	-0.180
X		-0.077	0.041	0.170	13.200	0.545	-0.002	-0.025	-0.212
σ		0.021	0.018	0.029	0.184	2.275	0.027	0.032	0.047
%RSD		27.470	45.450	16.930	1.394	417.100	1673.000	126.000	22.310
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	-0.113	-0.137	0.211	-0.051	0.074	3.090	0.000	0.116
2	16:14:29	-0.053	0.156	0.524	-0.042	0.073	-3.457	0.000	0.111
3	16:14:36	-0.132	0.049	0.284	-0.038	-0.007	1.761	0.000	0.116
X		-0.099	0.023	0.340	-0.044	0.047	0.465	0.000	0.115
σ		0.041	0.148	0.164	0.006	0.047	3.461	0.000	0.003
%RSD		41.510	658.200	48.280	14.550	100.300	744.900	0.000	2.334
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	95.453%	0.682	0.761	77.422%	-0.100	-0.069	0.023	-0.006
2	16:14:29	97.215%	0.973	0.763	77.195%	-0.147	-0.058	-0.001	0.009
3	16:14:36	98.995%	0.869	0.847	78.950%	-0.117	-0.062	0.057	-0.007
X		97.221%	0.841	0.790	77.856%	-0.122	-0.063	0.026	-0.001
σ		1.771%	0.147	0.049	0.955%	0.024	0.005	0.029	0.009
%RSD		1.822	17.510	6.221	1.226	19.570	8.550	111.700	619.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:21	77.922%	-0.582	-0.174	-1.004	0.001	0.058	86.737%	86.399%
2	16:14:29	78.120%	-0.532	-0.147	-0.991	0.071	0.019	87.518%	86.979%
3	16:14:36	79.577%	-0.479	-0.218	-1.018	0.052	0.047	89.126%	88.074%
X		78.540%	-0.531	-0.180	-1.004	0.041	0.041	87.794%	87.150%
σ		0.904%	0.052	0.036	0.013	0.036	0.020	1.218%	0.851%
%RSD		1.151	9.749	19.920	1.340	86.660	49.420	1.387	0.976
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:14:21	0.029	0.018	0.117	0.065	0.084	93.275%		
2	16:14:29	0.034	0.019	0.091	0.100	0.094	92.591%		
3	16:14:36	0.027	0.034	0.129	0.077	0.097	93.319%		
X		0.030	0.024	0.112	0.081	0.092	93.062%		
σ		0.003	0.009	0.019	0.018	0.007	0.408%		
%RSD		11.250	38.340	17.160	21.830	7.408	0.439		

MB 180-122933/1-A

11/5/2014 4:20:20 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	90.479%	-0.229	7.040	8.736	0.000	49.490	4.822	-0.880
2	16:19:35	90.511%	-0.200	1.171	1.515	0.000	52.360	5.293	1.156
3	16:19:42	89.943%	-0.157	-3.097	-2.977	0.000	59.700	5.129	-2.028
X		90.311%	-0.195	1.704	2.425	0.000	53.850	5.081	-0.584
σ		0.319%	0.036	5.090	5.909	0.000	5.266	0.239	1.612
%RSD		0.354	18.650	298.600	243.700	0.000	9.778	4.709	276.100
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	5.160	85.450	0.000	43.520	-6.767	-0.328	85.312%	0.038
2	16:19:35	5.922	47.100	0.000	49.750	0.513	0.928	83.728%	0.230
3	16:19:42	6.378	25.610	0.000	52.250	-13.180	3.292	81.567%	0.094
X		5.820	52.720	0.000	48.500	-6.477	1.297	83.536%	0.120
σ		0.616	30.310	0.000	4.497	6.850	1.838	1.880%	0.099
%RSD		10.580	57.500	0.000	9.272	105.800	141.700	2.251	82.070
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	-0.047	0.015	0.025	4.775	-8.512	-0.026	-0.061	-0.065
2	16:19:35	-0.127	0.015	0.053	4.062	-8.475	-0.023	-0.027	-0.318
3	16:19:42	-0.143	0.006	0.043	2.865	-10.530	-0.048	-0.012	-0.243
X		-0.106	0.012	0.040	3.901	-9.171	-0.032	-0.033	-0.209
σ		0.051	0.005	0.014	0.965	1.173	0.014	0.025	0.130
%RSD		48.280	43.840	34.660	24.740	12.790	42.180	75.710	62.080
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	-0.277	1.060	0.813	-0.066	0.174	-0.392	0.000	0.026
2	16:19:35	0.144	1.107	0.799	-0.046	-0.083	-1.473	0.000	0.002
3	16:19:42	-0.020	0.851	1.115	-0.057	-0.006	-5.772	0.000	0.006
X		-0.051	1.006	0.909	-0.057	0.028	-2.546	0.000	0.011
σ		0.212	0.136	0.178	0.010	0.132	2.846	0.000	0.013
%RSD		415.500	13.560	19.600	17.570	469.600	111.800	0.000	116.500
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	95.557%	0.411	0.535	76.379%	-0.144	-0.066	0.011	-0.011
2	16:19:35	96.741%	0.531	0.393	76.600%	-0.165	-0.071	0.047	-0.011
3	16:19:42	98.798%	0.348	0.521	77.521%	-0.158	-0.088	0.010	-0.002
X		97.032%	0.430	0.483	76.833%	-0.156	-0.075	0.023	-0.008
σ		1.640%	0.093	0.078	0.606%	0.011	0.011	0.021	0.005
%RSD		1.690	21.600	16.160	0.788	6.849	15.240	92.230	69.890
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:27	78.260%	-0.405	-0.326	-1.097	0.001	0.038	86.653%	86.044%
2	16:19:35	77.276%	-0.590	-0.336	-1.048	0.037	0.039	86.626%	85.403%
3	16:19:42	78.833%	-0.662	-0.314	-1.117	-0.016	-0.001	87.679%	87.054%
X		78.123%	-0.553	-0.325	-1.088	0.007	0.025	86.986%	86.167%
σ		0.787%	0.133	0.011	0.035	0.027	0.023	0.600%	0.832%
%RSD		1.008	23.990	3.396	3.243	369.400	90.080	0.690	0.966
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:19:27	0.012	0.013	0.059	0.065	0.051	93.971%		
2	16:19:35	-0.002	0.008	0.028	0.034	0.032	94.077%		
3	16:19:42	0.002	0.003	0.016	0.046	0.024	93.331%		
X		0.004	0.008	0.034	0.048	0.036	93.793%		
σ		0.008	0.005	0.022	0.016	0.014	0.404%		
%RSD		188.600	65.070	65.130	32.200	37.810	0.430		

MB 180-122786/1-A 11/5/2014 4:25:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	91.535%	-0.325	9.743	11.850	0.000	44.610	-0.843	-2.922
2	16:24:39	89.218%	-0.241	2.778	3.799	0.000	57.340	2.142	-1.562
3	16:24:47	88.888%	-0.187	-1.272	-2.080	0.000	70.510	1.406	-2.111
X		89.880%	-0.251	3.750	4.523	0.000	57.490	0.902	-2.198
σ		1.442%	0.070	5.571	6.993	0.000	12.950	1.555	0.684
%RSD		1.605	27.730	148.600	154.600	0.000	22.530	172.400	31.100
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	4.022	91.130	0.000	34.660	-1.196	-1.345	82.651%	-0.029
2	16:24:39	5.180	51.590	0.000	45.380	-12.950	-2.091	80.907%	-0.051
3	16:24:47	6.515	29.120	0.000	50.710	-0.451	-0.015	78.793%	0.001
X		5.239	57.280	0.000	43.580	-4.867	-1.150	80.784%	-0.026
σ		1.247	31.390	0.000	8.177	7.014	1.052	1.932%	0.026
%RSD		23.810	54.800	0.000	18.760	144.100	91.430	2.391	99.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	-0.165	-0.009	0.008	1.238	-9.927	-0.066	0.123	-0.275
2	16:24:39	-0.143	0.015	0.033	0.938	-12.810	-0.028	-0.168	-0.116
3	16:24:47	-0.064	0.004	0.047	1.177	-12.520	-0.034	0.121	-0.139
X		-0.124	0.003	0.029	1.118	-11.750	-0.043	0.025	-0.176
σ		0.053	0.012	0.020	0.159	1.587	0.021	0.168	0.086
%RSD		42.860	345.800	66.960	14.190	13.500	48.060	665.300	48.630
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	-0.120	1.809	2.459	-0.073	-0.119	-2.714	0.000	0.025
2	16:24:39	-0.039	1.566	2.361	-0.058	-0.120	-0.589	0.000	0.007
3	16:24:47	-0.049	1.719	1.619	-0.067	-0.060	1.666	0.000	-0.003
X		-0.069	1.698	2.146	-0.066	-0.100	-0.546	0.000	0.010
σ		0.044	0.123	0.459	0.008	0.034	2.190	0.000	0.014
%RSD		63.430	7.232	21.390	11.850	34.340	401.100	0.000	145.900
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	91.877%	0.214	0.267	73.810%	-0.117	-0.069	-0.001	-0.015
2	16:24:39	94.177%	0.209	0.203	73.950%	-0.106	-0.078	-0.001	-0.005
3	16:24:47	95.877%	0.349	0.195	74.355%	-0.145	-0.089	0.011	-0.005
X		93.977%	0.258	0.221	74.038%	-0.123	-0.079	0.003	-0.008
σ		2.007%	0.079	0.039	0.283%	0.020	0.010	0.007	0.006
%RSD		2.136	30.820	17.830	0.382	16.330	12.860	249.900	69.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:31	73.983%	-0.729	-0.345	-1.127	0.057	0.030	84.821%	83.613%
2	16:24:39	74.058%	-0.717	-0.359	-1.187	0.003	0.071	84.479%	84.633%
3	16:24:47	75.354%	-0.699	-0.350	-1.226	-0.016	0.060	85.467%	85.497%
X		74.465%	-0.715	-0.351	-1.180	0.015	0.054	84.922%	84.581%
σ		0.771%	0.015	0.007	0.050	0.038	0.021	0.502%	0.943%
%RSD		1.036	2.131	2.104	4.214	254.600	39.430	0.591	1.115
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:24:31	0.006	0.008	0.019	0.018	0.017	92.092%		
2	16:24:39	0.023	0.002	0.026	0.018	0.020	92.320%		
3	16:24:47	0.006	0.003	0.006	0.015	0.019	92.172%		
X		0.012	0.004	0.017	0.017	0.018	92.195%		
σ		0.010	0.003	0.011	0.002	0.002	0.116%		
%RSD		81.880	72.440	62.550	9.706	8.413	0.126		

LCS 180-122933/2-A

11/5/2014 4:30:25 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	79.862%	38.410	760.100	809.200	0.000	55400.000	46030.000	46630.000
2	16:29:40	77.382%	40.670	758.400	822.100	0.000	56630.000	47050.000	47150.000
3	16:29:48	70.810%	43.670	813.400	865.900	0.000	60490.000	49860.000	50390.000
X		76.018%	40.920	777.300	832.400	0.000	57510.000	47650.000	48060.000
σ		4.678%	2.636	31.260	29.710	0.000	2655.000	1986.000	2039.000
%RSD		6.153	6.442	4.022	3.569	0.000	4.617	4.168	4.243
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	2056.000	9889.000	0.000	47370.000	51040.000	51550.000	63.701%	1043.000
2	16:29:40	2110.000	10200.000	0.000	48180.000	52630.000	53620.000	63.197%	1069.000
3	16:29:48	2253.000	10680.000	0.000	49470.000	55090.000	55950.000	61.553%	1121.000
X		2140.000	10260.000	0.000	48340.000	52920.000	53710.000	62.817%	1078.000
σ		101.500	401.200	0.000	1059.000	2037.000	2204.000	1.123%	39.970
%RSD		4.742	3.911	0.000	2.190	3.849	4.104	1.788	3.708
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	574.000	233.400	478.300	1072.000	1239.000	538.600	532.900	246.000
2	16:29:40	583.100	237.000	495.800	1094.000	1184.000	545.500	540.400	247.300
3	16:29:48	602.400	244.300	512.600	1124.000	1202.000	557.900	549.900	252.700
X		586.500	238.200	495.600	1097.000	1208.000	547.300	541.100	248.700
σ		14.470	5.517	17.140	26.200	28.240	9.769	8.532	3.533
%RSD		2.467	2.316	3.458	2.389	2.338	1.785	1.577	1.421
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	270.400	488.000	481.500	36.250	9.062	6.983	0.000	885.900
2	16:29:40	272.200	497.200	497.500	36.990	9.373	9.254	0.000	873.900
3	16:29:48	272.200	488.000	505.800	36.530	9.855	7.108	0.000	869.900
X		271.600	491.100	495.000	36.590	9.430	7.782	0.000	876.600
σ		1.004	5.314	12.370	0.370	0.399	1.276	0.000	8.309
%RSD		0.370	1.082	2.498	1.012	4.233	16.400	0.000	0.948
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	84.620%	1093.000	1142.000	61.067%	55.020	55.850	55.910	107.800
2	16:29:40	86.656%	1083.000	1138.000	61.441%	55.100	54.920	56.160	108.300
3	16:29:48	87.759%	1087.000	1143.000	61.625%	54.580	55.800	54.410	110.800
X		86.345%	1088.000	1141.000	61.378%	54.900	55.530	55.490	109.000
σ		1.592%	4.827	2.717	0.284%	0.276	0.522	0.949	1.651
%RSD		1.844	0.444	0.238	0.463	0.502	0.939	1.711	1.515
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:32	61.962%	2130.000	563.300	554.800	2056.000	2051.000	78.919%	78.919%
2	16:29:40	63.119%	2135.000	561.000	556.900	2052.000	2050.000	79.952%	79.362%
3	16:29:48	62.488%	2160.000	566.900	566.200	2091.000	2087.000	78.581%	78.248%
X		62.523%	2142.000	563.700	559.300	2066.000	2063.000	79.151%	78.843%
σ		0.579%	16.020	2.977	6.072	21.180	21.160	0.714%	0.561%
%RSD		0.927	0.748	0.528	1.086	1.025	1.026	0.902	0.711
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:29:32	52.380	50.960	20.800	21.840	21.540	74.899%		
2	16:29:40	52.830	50.870	21.290	21.390	21.370	76.715%		
3	16:29:48	53.730	51.330	21.660	21.940	21.850	75.204%		
X		52.980	51.050	21.250	21.720	21.580	75.606%		
σ		0.686	0.243	0.432	0.294	0.245	0.973%		
%RSD		1.294	0.477	2.033	1.354	1.133	1.287		

LCS 180-122786/2-A

11/5/2014 4:35:31 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	77.468%	37.780	716.900	802.700	0.000	56650.000	47330.000	47510.000
2	16:34:45	73.549%	41.280	746.700	845.200	0.000	58780.000	48370.000	49070.000
3	16:34:52	73.817%	41.040	738.000	818.300	0.000	59490.000	48900.000	48730.000
X		74.945%	40.030	733.900	822.100	0.000	58310.000	48200.000	48440.000
σ		2.189%	1.956	15.300	21.510	0.000	1478.000	799.200	821.000
%RSD		2.921	4.886	2.085	2.616	0.000	2.535	1.658	1.695
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	2095.000	9842.000	0.000	44760.000	49720.000	50570.000	67.235%	1016.000
2	16:34:45	2187.000	10230.000	0.000	45690.000	51150.000	52310.000	66.437%	1047.000
3	16:34:52	2203.000	10320.000	0.000	47380.000	53940.000	54450.000	64.867%	1083.000
X		2162.000	10130.000	0.000	45940.000	51600.000	52440.000	66.180%	1049.000
σ		58.060	254.500	0.000	1327.000	2149.000	1944.000	1.205%	33.480
%RSD		2.686	2.512	0.000	2.888	4.164	3.707	1.821	3.192
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	565.200	229.800	462.800	1061.000	1154.000	531.800	527.000	245.200
2	16:34:45	578.000	234.000	480.900	1067.000	1142.000	537.900	528.600	248.400
3	16:34:52	584.900	240.100	494.400	1091.000	1189.000	542.800	533.300	248.200
X		576.100	234.600	479.400	1073.000	1162.000	537.500	529.600	247.300
σ		10.020	5.168	15.880	15.660	24.470	5.490	3.261	1.807
%RSD		1.739	2.203	3.313	1.459	2.107	1.021	0.616	0.731
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	264.300	483.500	477.100	36.320	9.439	8.686	0.000	888.500
2	16:34:45	269.700	488.900	480.700	36.840	9.195	7.753	0.000	884.300
3	16:34:52	271.400	490.800	486.400	36.620	9.352	6.784	0.000	889.600
X		268.500	487.700	481.400	36.590	9.328	7.741	0.000	887.500
σ		3.690	3.817	4.656	0.257	0.123	0.951	0.000	2.810
%RSD		1.374	0.783	0.967	0.704	1.322	12.280	0.000	0.317
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	85.528%	1108.000	1162.000	61.146%	56.180	55.570	56.740	110.100
2	16:34:45	86.764%	1101.000	1166.000	61.118%	55.630	55.390	56.150	110.900
3	16:34:52	88.025%	1108.000	1168.000	62.081%	56.130	55.730	57.490	111.200
X		86.772%	1106.000	1165.000	61.448%	55.980	55.560	56.800	110.700
σ		1.249%	3.887	3.188	0.548%	0.302	0.172	0.672	0.576
%RSD		1.439	0.352	0.274	0.892	0.540	0.309	1.183	0.520
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:37	62.866%	2161.000	567.300	559.800	2082.000	2087.000	79.651%	79.526%
2	16:34:45	63.185%	2156.000	562.200	563.000	2068.000	2083.000	80.846%	80.683%
3	16:34:52	62.828%	2190.000	572.800	569.800	2084.000	2084.000	80.630%	80.705%
X		62.960%	2169.000	567.400	564.200	2078.000	2085.000	80.376%	80.305%
σ		0.196%	18.520	5.278	5.075	8.463	1.976	0.636%	0.674%
%RSD		0.312	0.854	0.930	0.900	0.407	0.095	0.792	0.840
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:34:37	54.110	51.460	20.970	22.800	21.730	75.751%		
2	16:34:45	54.200	51.460	21.270	22.040	21.650	75.909%		
3	16:34:52	53.880	51.890	21.670	21.470	21.700	76.264%		
X		54.060	51.600	21.300	22.100	21.690	75.975%		
σ		0.162	0.249	0.353	0.670	0.039	0.263%		
%RSD		0.299	0.482	1.656	3.031	0.181	0.346		



180-38054-C-10-A

11/5/2014 4:40:36 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	62.662%	0.028	25.910	31.000	0.000	9852.000	13160.000	13100.000
2	16:39:51	59.296%	0.046	17.060	22.790	0.000	10140.000	13470.000	13440.000
3	16:39:58	58.696%	0.160	11.990	15.680	0.000	10410.000	13620.000	13600.000
X		60.218%	0.078	18.320	23.160	0.000	10140.000	13420.000	13380.000
σ		2.137%	0.072	7.046	7.667	0.000	281.500	231.700	259.600
%RSD		3.549	91.470	38.450	33.110	0.000	2.777	1.727	1.941
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	17.310	14430.000	0.000	1452.000	43500.000	43490.000	58.829%	4.245
2	16:39:51	22.080	15020.000	0.000	1471.000	45500.000	45270.000	58.271%	4.525
3	16:39:58	19.990	15350.000	0.000	1516.000	46150.000	46900.000	56.459%	4.113
X		19.790	14930.000	0.000	1480.000	45050.000	45220.000	57.853%	4.294
σ		2.389	465.800	0.000	32.690	1384.000	1706.000	1.239%	0.210
%RSD		12.070	3.120	0.000	2.209	3.071	3.773	2.142	4.890
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	41.390	14.510	356.000	3641.000	3562.000	1.462	0.825	4.914
2	16:39:51	43.200	14.390	368.000	3627.000	3491.000	1.460	0.828	5.096
3	16:39:58	44.430	15.870	380.100	3731.000	3586.000	1.571	0.913	5.018
X		43.010	14.920	368.000	3666.000	3546.000	1.498	0.855	5.009
σ		1.530	0.819	12.040	56.160	49.160	0.064	0.050	0.091
%RSD		3.559	5.489	3.272	1.532	1.386	4.247	5.824	1.824
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	4.960	4.464	4.721	1.036	0.041	3.747	0.000	400.700
2	16:39:51	5.013	4.476	4.969	0.954	-0.009	0.801	0.000	393.300
3	16:39:58	4.932	3.987	4.347	1.121	-0.008	1.910	0.000	392.000
X		4.969	4.309	4.679	1.037	0.008	2.153	0.000	395.300
σ		0.041	0.279	0.313	0.083	0.029	1.488	0.000	4.739
%RSD		0.820	6.469	6.696	8.020	361.900	69.110	0.000	1.199
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	83.556%	3.532	3.821	60.712%	-0.088	-0.021	0.043	0.134
2	16:39:51	85.085%	2.952	3.266	61.135%	-0.053	-0.025	0.013	0.150
3	16:39:58	85.470%	3.029	2.643	60.937%	-0.098	-0.042	0.146	0.139
X		84.704%	3.171	3.243	60.928%	-0.079	-0.029	0.068	0.141
σ		1.013%	0.315	0.589	0.212%	0.024	0.011	0.070	0.008
%RSD		1.196	9.945	18.160	0.347	29.950	37.060	103.000	5.807
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:43	62.757%	4.572	0.181	-0.575	72.930	74.360	79.040%	78.542%
2	16:39:51	63.572%	3.772	0.297	-0.565	74.200	73.220	78.509%	78.944%
3	16:39:58	63.131%	3.231	0.163	-0.580	72.760	71.470	79.793%	79.960%
X		63.153%	3.858	0.214	-0.574	73.300	73.020	79.114%	79.149%
σ		0.408%	0.675	0.073	0.007	0.788	1.452	0.645%	0.731%
%RSD		0.646	17.490	34.210	1.303	1.075	1.988	0.815	0.923
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:39:43	0.303	0.303	0.082	0.089	0.095	78.767%		
2	16:39:51	0.230	0.242	0.063	0.112	0.089	79.221%		
3	16:39:58	0.255	0.249	0.066	0.082	0.085	78.746%		
X		0.263	0.264	0.070	0.094	0.090	78.911%		
σ		0.037	0.034	0.010	0.015	0.005	0.269%		
%RSD		14.130	12.700	14.170	16.230	5.768	0.340		

180-38054-C-11-A 11/5/2014 4:45:42 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	55.323%	0.026	24.980	29.350	0.000	14140.000	18130.000	18070.000
2	16:44:56	53.717%	0.123	13.460	15.270	0.000	14520.000	18700.000	18800.000
3	16:45:03	52.930%	0.104	6.929	12.580	0.000	14660.000	19080.000	18790.000
X		53.990%	0.085	15.120	19.060	0.000	14440.000	18640.000	18550.000
σ		1.220%	0.051	9.138	9.004	0.000	273.000	476.800	418.800
%RSD		2.259	60.790	60.430	47.230	0.000	1.890	2.558	2.257
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	21.720	14030.000	0.000	1570.000	44480.000	44130.000	55.523%	2.725
2	16:44:56	21.610	14410.000	0.000	1591.000	46110.000	45960.000	54.894%	3.117
3	16:45:03	23.640	14900.000	0.000	1627.000	47340.000	47290.000	55.271%	3.095
X		22.320	14450.000	0.000	1596.000	45970.000	45790.000	55.229%	2.979
σ		1.140	435.600	0.000	29.150	1437.000	1586.000	0.316%	0.221
%RSD		5.107	3.014	0.000	1.826	3.126	3.464	0.573	7.409
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	41.600	13.630	380.100	201.300	300.600	0.655	18.310	5.150
2	16:44:56	40.650	14.220	395.100	202.900	311.100	0.655	16.560	4.914
3	16:45:03	42.480	14.800	405.000	199.800	301.800	0.638	16.580	5.385
X		41.580	14.220	393.400	201.400	304.500	0.649	17.150	5.150
σ		0.911	0.586	12.510	1.564	5.768	0.010	1.007	0.236
%RSD		2.190	4.121	3.180	0.777	1.894	1.483	5.870	4.574
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	6.317	5.026	6.009	1.080	-0.103	-1.256	0.000	514.900
2	16:44:56	5.433	4.934	5.245	1.273	0.094	-1.308	0.000	511.800
3	16:45:03	6.072	5.564	5.722	1.207	-0.079	2.127	0.000	510.000
X		5.941	5.175	5.659	1.186	-0.029	-0.146	0.000	512.200
σ		0.457	0.340	0.385	0.098	0.108	1.969	0.000	2.494
%RSD		7.684	6.577	6.811	8.283	367.800	1351.000	0.000	0.487
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	84.046%	1.017	1.294	59.914%	-0.107	-0.047	0.014	0.079
2	16:44:56	84.262%	0.994	1.218	60.080%	-0.077	-0.047	0.028	0.123
3	16:45:03	85.208%	0.973	1.057	60.520%	-0.085	-0.035	0.072	0.054
X		84.505%	0.995	1.190	60.171%	-0.089	-0.043	0.038	0.085
σ		0.618%	0.022	0.121	0.313%	0.015	0.007	0.030	0.035
%RSD		0.731	2.189	10.140	0.520	17.320	16.620	79.660	40.770
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:48	62.723%	1.136	0.144	-0.683	86.710	84.190	78.791%	78.314%
2	16:44:56	62.581%	1.499	0.115	-0.582	87.870	84.600	78.697%	78.461%
3	16:45:03	63.663%	1.103	0.054	-0.736	84.260	84.190	80.382%	80.083%
X		62.989%	1.246	0.104	-0.667	86.280	84.330	79.290%	78.953%
σ		0.588%	0.220	0.046	0.078	1.840	0.240	0.947%	0.982%
%RSD		0.933	17.640	43.740	11.750	2.132	0.285	1.194	1.244
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:44:48	0.118	0.093	0.062	0.075	0.070	76.524%		
2	16:44:56	0.102	0.087	0.074	0.135	0.092	77.179%		
3	16:45:03	0.071	0.086	0.043	0.067	0.068	77.837%		
X		0.097	0.089	0.060	0.092	0.077	77.180%		
σ		0.024	0.004	0.016	0.037	0.013	0.657%		
%RSD		24.710	4.196	26.710	40.530	17.330	0.851		

180-38054-E-14-A 11/5/2014 4:50:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	56.674%	0.039	27.340	33.670	0.000	31090.000	52320.000	52460.000
2	16:50:02	54.322%	-0.040	21.430	27.960	0.000	32720.000	54240.000	54710.000
3	16:50:10	53.085%	0.191	14.590	22.710	0.000	33120.000	54320.000	54890.000
X		54.694%	0.064	21.120	28.120	0.000	32310.000	53630.000	54020.000
σ		1.823%	0.117	6.380	5.480	0.000	1076.000	1132.000	1353.000
%RSD		3.334	184.600	30.210	19.490	0.000	3.332	2.111	2.505
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	25.220	6718.000	0.000	2523.000	156100.000	159300.000	55.667%	2.540
2	16:50:02	27.970	6922.000	0.000	2582.000	162000.000	165000.000	55.234%	1.988
3	16:50:10	27.340	7110.000	0.000	2610.000	166400.000	168300.000	55.375%	2.018
X		26.850	6917.000	0.000	2571.000	161500.000	164200.000	55.426%	2.182
σ		1.440	195.900	0.000	44.490	5179.000	4531.000	0.221%	0.310
%RSD		5.364	2.832	0.000	1.730	3.207	2.759	0.398	14.220
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	40.450	16.780	40.770	604.200	1004.000	0.907	4.492	6.439
2	16:50:02	45.960	18.850	42.520	608.600	1002.000	0.784	4.219	6.210
3	16:50:10	46.670	19.390	43.780	607.300	997.700	0.854	4.812	6.588
X		44.360	18.340	42.360	606.700	1001.000	0.848	4.508	6.412
σ		3.405	1.377	1.513	2.258	2.957	0.062	0.297	0.191
%RSD		7.676	7.505	3.573	0.372	0.295	7.303	6.585	2.971
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	6.320	55.090	53.190	10.010	0.042	3.756	0.000	439.500
2	16:50:02	6.551	55.060	53.020	10.350	0.136	0.057	0.000	443.400
3	16:50:10	6.544	55.690	53.200	10.760	0.014	4.053	0.000	434.600
X		6.471	55.280	53.140	10.370	0.064	2.622	0.000	439.200
σ		0.131	0.357	0.105	0.374	0.064	2.226	0.000	4.399
%RSD		2.028	0.646	0.197	3.604	100.500	84.910	0.000	1.002
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	85.431%	1.709	1.563	59.206%	-0.112	-0.053	0.014	0.037
2	16:50:02	87.028%	1.196	1.598	59.912%	-0.120	-0.054	-0.001	0.000
3	16:50:10	87.993%	1.257	1.216	60.002%	-0.114	-0.064	0.028	0.031
X		86.817%	1.387	1.459	59.707%	-0.115	-0.057	0.014	0.023
σ		1.294%	0.280	0.211	0.436%	0.004	0.006	0.015	0.020
%RSD		1.490	20.210	14.480	0.731	3.582	10.790	108.200	87.940
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:55	61.950%	0.374	0.381	-0.447	71.040	68.960	78.257%	78.372%
2	16:50:02	62.606%	0.316	0.368	-0.331	71.010	70.360	79.511%	79.813%
3	16:50:10	62.707%	0.334	0.362	-0.512	70.140	70.000	80.574%	81.071%
X		62.421%	0.341	0.370	-0.430	70.730	69.770	79.447%	79.752%
σ		0.411%	0.030	0.010	0.092	0.511	0.731	1.160%	1.351%
%RSD		0.658	8.741	2.576	21.320	0.722	1.048	1.460	1.694
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:49:55	0.063	0.062	0.096	0.101	0.105	74.757%		
2	16:50:02	0.061	0.057	0.118	0.136	0.125	74.800%		
3	16:50:10	0.114	0.044	0.092	0.076	0.090	75.320%		
X		0.079	0.054	0.102	0.104	0.107	74.959%		
σ		0.030	0.010	0.014	0.030	0.017	0.313%		
%RSD		37.790	17.690	13.880	28.820	16.320	0.418		

180-38102-K-1-A

11/5/2014 4:55:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	75.283%	-0.203	11.060	12.740	0.000	93.610	32.900	32.760
2	16:55:08	70.192%	-0.249	4.472	4.683	0.000	131.000	41.340	31.590
3	16:55:16	71.955%	-0.279	-1.929	0.515	0.000	119.900	36.870	31.020
X		72.477%	-0.244	4.534	5.981	0.000	114.800	37.040	31.790
σ		2.585%	0.039	6.495	6.217	0.000	19.190	4.223	0.887
%RSD		3.567	15.810	143.200	103.900	0.000	16.710	11.400	2.790
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	7.676	111.800	0.000	35.860	107.000	123.300	70.399%	0.213
2	16:55:08	8.296	69.820	0.000	54.690	134.600	134.400	67.788%	0.109
3	16:55:16	9.209	44.180	0.000	55.060	148.400	137.400	66.772%	0.083
X		8.393	75.270	0.000	48.530	130.000	131.700	68.320%	0.135
σ		0.771	34.140	0.000	10.980	21.050	7.426	1.871%	0.069
%RSD		9.187	45.360	0.000	22.620	16.190	5.637	2.739	50.970
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	1.375	0.277	0.193	3.709	-3.903	-0.044	0.207	2.065
2	16:55:08	0.730	0.301	0.296	4.034	-1.373	-0.018	0.017	1.886
3	16:55:16	0.819	0.279	0.229	3.391	-10.520	-0.079	0.019	1.914
X		0.975	0.286	0.239	3.711	-5.264	-0.047	0.081	1.955
σ		0.350	0.013	0.053	0.322	4.721	0.030	0.109	0.097
%RSD		35.870	4.559	21.970	8.664	89.690	64.780	134.600	4.945
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	2.119	1.447	1.476	0.025	-0.110	0.126	0.000	0.513
2	16:55:08	1.940	1.306	0.919	0.085	-0.064	-5.588	0.000	0.440
3	16:55:16	1.972	1.249	1.485	0.049	-0.087	-5.710	0.000	0.400
X		2.010	1.334	1.293	0.053	-0.087	-3.724	0.000	0.451
σ		0.095	0.102	0.325	0.030	0.023	3.335	0.000	0.057
%RSD		4.741	7.617	25.090	57.140	26.290	89.540	0.000	12.660
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	84.230%	0.174	0.121	66.246%	-0.136	-0.079	0.012	-0.025
2	16:55:08	85.308%	0.058	0.145	65.837%	-0.163	-0.056	-0.001	-0.019
3	16:55:16	86.413%	0.150	0.111	66.771%	-0.148	-0.076	0.026	0.015
X		85.317%	0.127	0.126	66.285%	-0.149	-0.070	0.012	-0.010
σ		1.091%	0.061	0.018	0.468%	0.014	0.012	0.014	0.021
%RSD		1.279	47.870	13.970	0.707	9.136	17.370	110.700	220.600
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:55:01	67.038%	-0.529	-0.386	-1.207	0.163	0.430	80.371%	80.057%
2	16:55:08	66.373%	-0.619	-0.392	-1.231	0.322	0.211	80.553%	80.758%
3	16:55:16	67.288%	-0.625	-0.425	-1.212	0.123	0.219	81.443%	81.453%
X		66.900%	-0.591	-0.401	-1.217	0.203	0.286	80.789%	80.756%
σ		0.473%	0.054	0.021	0.013	0.105	0.124	0.574%	0.698%
%RSD		0.707	9.087	5.174	1.040	52.050	43.410	0.710	0.865
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:55:01	0.031	0.026	0.019	0.043	0.031	83.230%		
2	16:55:08	0.008	0.012	0.048	0.018	0.028	82.394%		
3	16:55:16	0.017	0.015	0.033	0.033	0.026	83.949%		
X		0.019	0.018	0.034	0.031	0.029	83.191%		
σ		0.012	0.007	0.015	0.013	0.002	0.778%		
%RSD		63.630	40.140	43.950	39.960	7.924	0.936		

180-38102-K-2-A

11/5/2014 5:00:58 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	83.072%	-0.259	13.570	12.910	0.000	30.720	10.670	7.984
2	17:00:14	81.427%	-0.304	3.357	5.353	0.000	48.730	15.000	8.536
3	17:00:22	82.520%	-0.263	-0.614	-1.655	0.000	39.660	8.080	2.641
X		82.340%	-0.275	5.438	5.536	0.000	39.710	11.250	6.387
σ		0.837%	0.025	7.317	7.284	0.000	9.006	3.498	3.256
%RSD		1.017	8.980	134.600	131.600	0.000	22.680	31.090	50.980
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	3.549	104.000	0.000	37.660	38.260	36.900	71.844%	0.178
2	17:00:14	4.528	57.160	0.000	50.030	23.260	40.250	69.841%	0.102
3	17:00:22	4.453	33.900	0.000	59.370	35.120	44.660	68.692%	0.077
X		4.177	65.010	0.000	49.020	32.210	40.600	70.126%	0.119
σ		0.544	35.690	0.000	10.890	7.911	3.892	1.595%	0.053
%RSD		13.040	54.900	0.000	22.220	24.560	9.585	2.275	44.320
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	0.225	0.122	0.073	3.151	-12.620	-0.039	0.093	1.254
2	17:00:14	0.278	0.129	0.110	2.717	-13.340	-0.049	0.262	1.442
3	17:00:22	0.262	0.125	0.093	3.111	-9.018	-0.048	0.091	1.024
X		0.255	0.125	0.092	2.993	-11.660	-0.045	0.149	1.240
σ		0.027	0.004	0.018	0.240	2.315	0.005	0.098	0.210
%RSD		10.630	2.892	19.750	8.017	19.860	11.870	65.940	16.910
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	1.224	0.910	1.121	-0.014	0.077	-2.734	0.000	0.220
2	17:00:14	1.392	0.732	0.826	-0.020	-0.063	-1.534	0.000	0.183
3	17:00:22	1.288	0.615	0.964	0.017	-0.063	-1.154	0.000	0.143
X		1.301	0.752	0.970	-0.006	-0.016	-1.807	0.000	0.182
σ		0.085	0.149	0.148	0.020	0.081	0.824	0.000	0.038
%RSD		6.511	19.750	15.220	327.700	498.200	45.610	0.000	21.060
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	81.542%	0.055	0.084	64.323%	-0.143	-0.074	-0.001	-0.025
2	17:00:14	83.319%	0.033	0.019	64.932%	-0.147	-0.087	0.027	0.016
3	17:00:22	83.814%	0.032	0.000	65.224%	-0.144	-0.069	0.012	-0.025
X		82.892%	0.040	0.035	64.827%	-0.145	-0.076	0.013	-0.011
σ		1.195%	0.013	0.044	0.460%	0.002	0.010	0.014	0.024
%RSD		1.442	33.020	127.700	0.709	1.302	12.460	110.900	210.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:00:07	64.800%	-0.740	-0.416	-1.208	0.088	0.171	78.691%	77.661%
2	17:00:14	65.529%	-0.730	-0.410	-1.238	0.147	0.113	78.932%	79.716%
3	17:00:22	66.656%	-0.627	-0.415	-1.244	0.045	0.078	80.493%	80.724%
X		65.661%	-0.699	-0.414	-1.230	0.093	0.120	79.372%	79.367%
σ		0.935%	0.062	0.003	0.019	0.051	0.047	0.978%	1.561%
%RSD		1.424	8.920	0.740	1.572	54.680	38.970	1.233	1.966
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:00:07	0.017	0.013	0.024	0.026	0.020	85.587%		
2	17:00:14	0.021	0.019	0.041	0.020	0.031	85.303%		
3	17:00:22	0.014	0.013	0.035	0.011	0.022	85.428%		
X		0.017	0.015	0.033	0.019	0.024	85.439%		
σ		0.004	0.004	0.009	0.008	0.006	0.143%		
%RSD		20.490	25.640	25.940	40.310	24.420	0.167		

180-37952-B-3-A

11/5/2014 5:06:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	61.647%	-0.106	30.720	38.810	0.000	84240.000	11580.000	11540.000
2	17:05:19	59.070%	-0.111	29.820	33.420	0.000	88320.000	11880.000	11860.000
3	17:05:26	58.864%	-0.047	24.560	26.090	0.000	89060.000	12000.000	11970.000
X		59.861%	-0.088	28.370	32.770	0.000	87210.000	11820.000	11790.000
σ		1.551%	0.036	3.326	6.387	0.000	2596.000	217.200	222.100
%RSD		2.591	40.410	11.720	19.490	0.000	2.977	1.837	1.884
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	372.700	3933.000	0.000	7714.000	53090.000	53110.000	55.641%	7.055
2	17:05:19	396.000	4116.000	0.000	7951.000	54520.000	55460.000	55.400%	8.656
3	17:05:26	389.900	4082.000	0.000	7951.000	55810.000	56400.000	55.090%	8.131
X		386.200	4044.000	0.000	7872.000	54470.000	54990.000	55.377%	7.948
σ		12.090	97.100	0.000	136.800	1362.000	1694.000	0.276%	0.817
%RSD		3.129	2.401	0.000	1.738	2.501	3.080	0.498	10.280
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	47.480	19.390	74.570	528.100	651.300	0.618	2.021	7.049
2	17:05:19	47.170	20.030	76.570	535.400	648.100	0.573	2.333	7.236
3	17:05:26	48.570	20.140	78.120	538.200	654.400	0.652	2.079	8.502
X		47.740	19.850	76.420	533.900	651.200	0.614	2.144	7.596
σ		0.736	0.401	1.780	5.168	3.167	0.040	0.166	0.791
%RSD		1.542	2.020	2.329	0.968	0.486	6.476	7.757	10.410
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	7.786	11.650	12.060	1.541	0.128	2.955	0.000	123.600
2	17:05:19	7.912	12.630	12.000	1.573	0.418	2.171	0.000	119.900
3	17:05:26	8.587	11.800	10.850	1.601	0.122	3.696	0.000	122.400
X		8.095	12.030	11.640	1.572	0.222	2.941	0.000	122.000
σ		0.431	0.531	0.684	0.030	0.169	0.763	0.000	1.897
%RSD		5.325	4.418	5.875	1.908	76.030	25.940	0.000	1.555
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	80.422%	5.118	4.874	56.794%	-0.134	-0.061	0.125	0.143
2	17:05:19	83.196%	4.230	4.790	57.608%	-0.121	-0.076	0.167	0.088
3	17:05:26	82.883%	4.522	4.972	57.494%	-0.117	-0.069	0.107	0.129
X		82.167%	4.624	4.879	57.299%	-0.124	-0.069	0.133	0.120
σ		1.519%	0.453	0.091	0.441%	0.009	0.008	0.031	0.028
%RSD		1.849	9.792	1.865	0.770	7.018	11.190	23.180	23.690
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:05:11	59.498%	0.192	-0.226	-0.970	52.090	54.280	75.091%	76.467%
2	17:05:19	61.290%	0.411	-0.168	-0.971	53.900	52.420	77.185%	76.518%
3	17:05:26	60.126%	0.237	-0.109	-0.929	55.340	55.300	76.878%	77.474%
X		60.305%	0.280	-0.168	-0.957	53.770	54.000	76.385%	76.820%
σ		0.909%	0.116	0.058	0.024	1.629	1.462	1.131%	0.567%
%RSD		1.507	41.430	34.870	2.506	3.030	2.708	1.481	0.738
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:05:11	0.051	0.043	1.656	1.492	1.578	70.810%		
2	17:05:19	0.031	0.026	1.648	1.468	1.526	72.546%		
3	17:05:26	0.036	0.030	1.585	1.521	1.545	72.035%		
X		0.039	0.033	1.630	1.494	1.550	71.797%		
σ		0.010	0.009	0.039	0.026	0.027	0.892%		
%RSD		26.090	27.500	2.390	1.767	1.712	1.242		

CCV 1369903 11/5/2014 5:11:12 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	76.056%	93.990	109.200	106.600	0.000	53170.000	48800.000	48940.000
2	17:10:26	74.723%	96.320	101.500	105.000	0.000	54770.000	50760.000	50860.000
3	17:10:34	73.345%	99.510	100.400	102.500	0.000	56070.000	51200.000	51680.000
X		74.708%	96.608%	103.713%	104.725%	0.000	109.337%	100.510%	100.985%
σ		1.355%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.814	2.868	4.649	1.980	0.000	2.658	2.537	2.779
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	503.800	6151.000	0.000	53100.000	50730.000	51670.000	65.125%	100.600
2	17:10:26	520.400	6268.000	0.000	54680.000	53140.000	53850.000	63.002%	106.100
3	17:10:34	533.800	6397.000	0.000	55070.000	53970.000	54980.000	62.941%	111.000
X		103.867%	125.438%	0.000	108.558%	105.225%	106.997%	63.690%	105.902%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.244%	n/a
%RSD		2.890	1.964	0.000	1.922	3.198	3.139	1.953	4.906
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	104.100	103.800	504.700	25620.000	24890.000	101.300	101.000	100.200
2	17:10:26	106.200	107.200	525.600	26590.000	25770.000	104.800	106.200	104.300
3	17:10:34	107.500	108.700	538.900	26660.000	25860.000	104.600	106.100	104.900
X		105.936%	106.555%	104.609%	105.165%	102.015%	103.541%	104.414%	103.128%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.586	2.350	3.301	2.202	2.105	1.903	2.844	2.507
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	105.100	98.690	102.100	93.620	94.510	99.780	0.000	88.690
2	17:10:26	107.000	104.100	102.300	95.220	94.310	96.640	0.000	89.450
3	17:10:34	106.500	101.400	101.700	96.390	95.340	89.720	0.000	88.060
X		106.181%	101.372%	102.055%	95.078%	94.722%	95.376%	0.000	88.735%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.925	2.648	0.314	1.460	0.573	5.397	0.000	0.788
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	78.889%	99.160	103.300	59.531%	104.500	105.100	104.700	108.300
2	17:10:26	79.748%	102.500	106.000	59.889%	105.000	104.700	104.900	107.700
3	17:10:34	80.778%	102.500	106.300	60.128%	104.100	104.700	105.400	106.300
X		79.805%	101.384%	105.220%	59.849%	104.511%	104.862%	105.002%	107.425%
σ		0.945%	n/a	n/a	0.300%	n/a	n/a	n/a	n/a
%RSD		1.185	1.899	1.565	0.502	0.426	0.213	0.319	0.943
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:19	60.879%	103.400	102.900	102.400	99.230	99.840	76.108%	75.501%
2	17:10:26	60.971%	104.300	104.700	104.700	101.400	102.900	76.486%	76.639%
3	17:10:34	62.359%	103.200	103.100	102.900	100.800	99.870	77.092%	77.310%
X		61.403%	103.616%	103.545%	103.317%	100.498%	100.875%	76.562%	76.483%
σ		0.829%	n/a	n/a	n/a	n/a	n/a	0.496%	0.914%
%RSD		1.351	0.556	0.979	1.183	1.125	1.752	0.648	1.196
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:10:19	106.300	102.800	105.400	107.000	106.000	76.073%		
2	17:10:26	106.900	103.200	105.600	107.100	106.600	76.002%		
3	17:10:34	106.200	103.100	104.300	106.100	105.500	76.854%		
X		106.474%	103.035%	105.108%	106.743%	106.061%	76.310%		
σ		n/a	n/a	n/a	n/a	n/a	0.473%		
%RSD		0.350	0.182	0.647	0.563	0.512	0.619		

CCB2 11/5/2014 5:20:19 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	87.638%	-0.283	14.380	13.320	0.000	-4.034	8.872	2.615
2	17:19:35	88.300%	-0.261	6.651	5.051	0.000	10.100	8.994	3.557
3	17:19:42	87.169%	-0.221	-1.320	-1.389	0.000	15.960	8.393	4.851
X		87.702%	-0.255	6.571	5.662	0.000	7.342	8.753	3.675
σ		0.568%	0.031	7.852	7.375	0.000	10.280	0.318	1.122
%RSD		0.648	12.340	119.500	130.300	0.000	140.000	3.633	30.550
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	3.627	106.700	0.000	47.930	13.520	11.750	75.570%	0.111
2	17:19:35	5.698	64.570	0.000	53.990	2.153	13.880	73.979%	0.009
3	17:19:42	7.049	38.560	0.000	55.540	4.591	15.700	72.033%	0.013
X		5.458	69.940	0.000	52.490	6.755	13.770	73.861%	0.044
σ		1.724	34.380	0.000	4.019	5.986	1.974	1.772%	0.058
%RSD		31.580	49.160	0.000	7.657	88.610	14.330	2.399	130.700
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	0.164	0.079	0.222	12.050	-4.775	-0.025	-0.080	0.835
2	17:19:35	0.129	0.099	0.157	12.270	-3.267	-0.051	-0.017	0.952
3	17:19:42	0.049	0.063	0.155	11.590	1.290	-0.055	0.075	0.923
X		0.114	0.080	0.178	11.970	-2.251	-0.044	-0.007	0.903
σ		0.059	0.018	0.038	0.346	3.158	0.016	0.078	0.061
%RSD		51.420	21.980	21.440	2.892	140.300	37.160	1049.000	6.766
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	0.746	0.171	0.363	-0.010	0.069	0.976	0.000	0.098
2	17:19:35	0.801	0.158	0.136	0.024	0.290	-2.551	0.000	0.101
3	17:19:42	0.734	0.063	0.187	0.011	-0.066	-3.446	0.000	0.120
X		0.760	0.130	0.229	0.008	0.098	-1.674	0.000	0.106
σ		0.036	0.059	0.119	0.017	0.180	2.338	0.000	0.012
%RSD		4.713	45.310	51.970	210.400	183.700	139.700	0.000	11.490
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	83.355%	0.090	0.370	65.489%	-0.113	-0.053	0.040	-0.013
2	17:19:35	84.983%	0.193	0.312	65.507%	-0.135	-0.078	0.026	-0.013
3	17:19:42	84.659%	0.068	0.188	66.112%	-0.160	-0.069	-0.001	0.004
X		84.332%	0.117	0.290	65.703%	-0.136	-0.067	0.022	-0.008
σ		0.862%	0.067	0.093	0.354%	0.023	0.013	0.021	0.010
%RSD		1.022	56.940	32.190	0.540	17.150	19.250	97.890	129.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:27	66.104%	-0.657	-0.133	-0.956	-0.013	0.124	78.422%	77.979%
2	17:19:35	66.117%	-0.671	-0.123	-0.989	-0.013	0.057	78.561%	78.966%
3	17:19:42	66.647%	-0.532	-0.200	-1.033	0.046	0.089	79.502%	79.614%
X		66.289%	-0.620	-0.152	-0.993	0.006	0.090	78.828%	78.853%
σ		0.310%	0.076	0.042	0.039	0.034	0.034	0.587%	0.823%
%RSD		0.468	12.320	27.480	3.914	541.800	37.480	0.745	1.044
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:19:27	0.019	0.031	0.138	0.116	0.102	83.233%		
2	17:19:35	0.041	0.037	0.080	0.081	0.080	83.415%		
3	17:19:42	0.022	0.027	0.080	0.090	0.087	83.166%		
X		0.027	0.032	0.099	0.096	0.090	83.271%		
σ		0.012	0.005	0.034	0.018	0.011	0.129%		
%RSD		42.400	16.900	33.850	18.870	12.520	0.155		



180-37952-B-4-A

11/5/2014 5:25:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	61.506%	-0.054	79.150	88.590	0.000	79110.000	14100.000	14180.000
2	17:24:40	60.221%	-0.103	72.490	83.110	0.000	81030.000	14210.000	14280.000
3	17:24:48	57.481%	-0.025	70.790	82.360	0.000	84910.000	14880.000	15020.000
X		59.736%	-0.061	74.140	84.690	0.000	81680.000	14390.000	14500.000
σ		2.056%	0.040	4.420	3.396	0.000	2958.000	422.300	460.300
%RSD		3.442	65.490	5.961	4.010	0.000	3.621	2.935	3.175
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	154.500	4299.000	0.000	10120.000	71140.000	71930.000	52.690%	8.508
2	17:24:40	160.800	4372.000	0.000	10170.000	72670.000	74300.000	53.045%	7.406
3	17:24:48	169.200	4491.000	0.000	10340.000	75340.000	76470.000	52.321%	7.283
X		161.500	4387.000	0.000	10210.000	73050.000	74230.000	52.685%	7.732
σ		7.394	96.540	0.000	116.500	2125.000	2269.000	0.362%	0.674
%RSD		4.578	2.200	0.000	1.141	2.909	3.057	0.687	8.719
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	31.840	14.050	38.270	259.100	414.700	0.587	1.384	7.255
2	17:24:40	34.410	15.450	39.050	253.900	417.000	0.532	1.736	8.419
3	17:24:48	35.620	16.350	40.100	261.500	409.100	0.573	1.657	8.471
X		33.960	15.290	39.140	258.200	413.600	0.564	1.592	8.048
σ		1.928	1.160	0.920	3.867	4.085	0.028	0.185	0.688
%RSD		5.677	7.587	2.350	1.498	0.988	4.992	11.590	8.544
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	7.550	16.750	16.420	1.599	0.348	2.269	0.000	129.200
2	17:24:40	8.631	17.090	18.880	1.595	0.236	3.704	0.000	130.800
3	17:24:48	8.337	16.920	16.330	1.687	0.208	4.573	0.000	127.600
X		8.173	16.920	17.210	1.627	0.264	3.515	0.000	129.200
σ		0.559	0.170	1.445	0.052	0.074	1.164	0.000	1.607
%RSD		6.839	1.007	8.399	3.183	28.120	33.110	0.000	1.244
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	78.532%	9.125	10.020	55.224%	-0.121	-0.070	0.031	0.061
2	17:24:40	80.337%	9.623	9.766	56.071%	-0.108	-0.039	0.109	0.132
3	17:24:48	81.574%	9.599	9.348	55.907%	-0.108	-0.050	0.061	0.085
X		80.148%	9.449	9.710	55.734%	-0.112	-0.053	0.067	0.092
σ		1.530%	0.281	0.338	0.449%	0.008	0.016	0.040	0.036
%RSD		1.909	2.975	3.477	0.806	6.734	30.400	59.100	38.790
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:33	58.592%	0.447	0.270	-0.528	34.630	35.770	74.583%	75.340%
2	17:24:40	59.147%	0.447	0.133	-0.661	36.150	35.310	76.137%	76.148%
3	17:24:48	59.980%	0.285	0.167	-0.665	35.210	34.660	76.808%	76.917%
X		59.240%	0.393	0.190	-0.618	35.330	35.240	75.843%	76.135%
σ		0.698%	0.094	0.071	0.078	0.766	0.558	1.141%	0.789%
%RSD		1.179	23.820	37.490	12.590	2.167	1.584	1.505	1.036
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:24:33	0.043	0.040	1.096	1.170	1.148	70.004%		
2	17:24:40	0.064	0.043	1.128	1.155	1.105	70.934%		
3	17:24:48	0.023	0.017	1.286	1.003	1.116	71.533%		
X		0.044	0.034	1.170	1.110	1.123	70.824%		
σ		0.021	0.014	0.102	0.093	0.023	0.770%		
%RSD		47.200	42.440	8.682	8.340	2.016	1.088		

180-37952-C-7-A

11/5/2014 5:30:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	55.767%	-0.148	11.160	16.860	0.000	10940.000	10930.000	10910.000
2	17:29:44	53.849%	0.043	3.702	9.476	0.000	11390.000	11300.000	11260.000
3	17:29:51	52.856%	0.095	2.088	5.216	0.000	11460.000	11260.000	11190.000
X		54.157%	-0.003	5.650	10.520	0.000	11260.000	11160.000	11120.000
σ		1.480%	0.128	4.840	5.891	0.000	281.000	202.200	183.500
%RSD		2.732	3958.000	85.660	56.010	0.000	2.495	1.811	1.650
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	77.360	8518.000	0.000	3215.000	40330.000	40250.000	53.929%	3.505
2	17:29:44	81.010	8695.000	0.000	3302.000	42380.000	41980.000	53.003%	3.905
3	17:29:51	82.450	8841.000	0.000	3304.000	42250.000	42750.000	52.979%	3.459
X		80.270	8685.000	0.000	3274.000	41660.000	41660.000	53.304%	3.623
σ		2.623	161.600	0.000	50.800	1148.000	1280.000	0.542%	0.245
%RSD		3.268	1.861	0.000	1.552	2.755	3.071	1.016	6.766
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	29.920	13.200	188.200	16.880	114.200	0.427	0.829	6.107
2	17:29:44	33.020	13.780	195.000	16.480	94.150	0.393	0.917	6.903
3	17:29:51	32.030	14.170	197.700	16.970	102.800	0.344	0.670	6.988
X		31.660	13.720	193.600	16.780	103.700	0.388	0.805	6.666
σ		1.585	0.487	4.874	0.257	10.060	0.042	0.125	0.486
%RSD		5.009	3.546	2.517	1.532	9.702	10.790	15.520	7.288
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	6.305	2.134	2.869	1.008	0.031	-4.424	0.000	563.800
2	17:29:44	6.490	1.830	2.261	1.035	0.158	1.090	0.000	562.100
3	17:29:51	6.880	1.999	2.872	0.953	0.081	0.625	0.000	554.600
X		6.558	1.988	2.667	0.999	0.090	-0.903	0.000	560.200
σ		0.294	0.152	0.352	0.042	0.064	3.058	0.000	4.921
%RSD		4.480	7.653	13.200	4.187	71.370	338.600	0.000	0.879
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	79.498%	2.047	2.035	56.409%	-0.144	-0.071	0.030	0.008
2	17:29:44	80.747%	2.180	2.171	56.385%	-0.154	-0.089	0.030	-0.011
3	17:29:51	80.732%	2.198	2.133	56.526%	-0.154	-0.079	-0.001	0.021
X		80.326%	2.142	2.113	56.440%	-0.151	-0.080	0.020	0.006
σ		0.717%	0.082	0.070	0.076%	0.006	0.009	0.018	0.016
%RSD		0.892	3.842	3.334	0.134	4.058	11.200	92.920	262.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:29:36	59.142%	-0.310	-0.107	-0.872	161.900	156.400	75.681%	76.087%
2	17:29:44	58.446%	-0.371	-0.104	-0.947	158.000	158.900	76.848%	76.645%
3	17:29:51	59.387%	-0.336	-0.116	-0.961	155.200	156.600	76.946%	76.790%
X		58.992%	-0.339	-0.109	-0.927	158.400	157.300	76.491%	76.507%
σ		0.488%	0.031	0.006	0.048	3.343	1.383	0.704%	0.371%
%RSD		0.828	9.058	5.904	5.188	2.111	0.879	0.920	0.485
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:29:36	0.033	0.021	0.050	0.047	0.050	72.695%		
2	17:29:44	0.012	0.019	0.068	0.060	0.056	73.822%		
3	17:29:51	0.041	0.018	0.039	0.064	0.052	73.707%		
X		0.029	0.019	0.052	0.057	0.053	73.408%		
σ		0.015	0.002	0.015	0.009	0.003	0.620%		
%RSD		52.360	9.657	28.120	15.630	5.241	0.845		

180-37952-C-7-A SD@5 11/5/2014 5:35:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	55.920%	-0.112	19.790	20.690	0.000	2108.000	2177.000	2163.000
2	17:34:46	57.264%	-0.224	5.062	7.282	0.000	2100.000	2256.000	2172.000
3	17:34:54	56.192%	-0.133	2.584	1.427	0.000	2158.000	2266.000	2236.000
X		56.458%	-0.157	9.144	9.801	0.000	2122.000	2233.000	2190.000
σ		0.710%	0.060	9.299	9.878	0.000	31.180	49.070	39.960
%RSD		1.258	38.180	101.700	100.800	0.000	1.469	2.198	1.824
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	14.550	1924.000	0.000	740.900	7888.000	7477.000	55.661%	0.302
2	17:34:46	14.430	1948.000	0.000	785.800	8535.000	8043.000	53.780%	0.206
3	17:34:54	16.490	1961.000	0.000	800.600	8771.000	8186.000	53.351%	0.172
X		15.160	1945.000	0.000	775.700	8398.000	7902.000	54.264%	0.227
σ		1.159	18.840	0.000	31.110	457.200	375.000	1.228%	0.067
%RSD		7.644	0.969	0.000	4.010	5.444	4.745	2.263	29.670
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	9.558	2.895	36.620	7.494	18.870	0.053	0.193	3.867
2	17:34:46	9.967	3.251	39.150	7.644	22.420	0.029	0.248	3.788
3	17:34:54	10.440	3.309	40.210	7.008	20.750	0.040	0.435	3.843
X		9.987	3.152	38.660	7.382	20.680	0.041	0.292	3.832
σ		0.439	0.224	1.844	0.333	1.779	0.012	0.127	0.040
%RSD		4.395	7.110	4.771	4.506	8.602	29.950	43.370	1.046
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	3.976	1.195	1.116	0.261	-0.123	1.751	0.000	112.900
2	17:34:46	4.230	1.098	0.642	0.230	0.185	0.536	0.000	112.100
3	17:34:54	3.862	1.118	1.140	0.196	-0.022	2.618	0.000	109.300
X		4.023	1.137	0.966	0.229	0.013	1.635	0.000	111.400
σ		0.188	0.051	0.281	0.033	0.157	1.046	0.000	1.873
%RSD		4.674	4.511	29.090	14.230	1180.000	63.970	0.000	1.681
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	77.101%	0.189	0.318	58.119%	-0.176	-0.097	-0.001	-0.012
2	17:34:46	79.658%	0.278	0.339	58.342%	-0.152	-0.101	0.014	-0.018
3	17:34:54	80.543%	0.419	0.301	58.802%	-0.156	-0.101	-0.001	-0.018
X		79.101%	0.295	0.319	58.421%	-0.161	-0.100	0.004	-0.016
σ		1.788%	0.116	0.019	0.348%	0.013	0.002	0.009	0.004
%RSD		2.260	39.290	5.937	0.596	8.024	2.061	238.500	22.840
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:38	60.778%	-0.602	-0.395	-1.192	30.300	30.810	75.972%	75.995%
2	17:34:46	60.280%	-0.591	-0.398	-1.191	31.030	31.120	76.388%	77.782%
3	17:34:54	60.899%	-0.551	-0.396	-1.188	31.960	31.390	77.176%	77.502%
X		60.652%	-0.581	-0.396	-1.190	31.100	31.110	76.512%	77.093%
σ		0.328%	0.026	0.002	0.002	0.831	0.291	0.612%	0.961%
%RSD		0.542	4.554	0.419	0.176	2.673	0.936	0.799	1.247
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:34:38	0.004	0.011	0.078	0.105	0.091	77.009%		
2	17:34:46	0.028	0.004	0.076	0.152	0.107	78.865%		
3	17:34:54	0.006	0.013	0.127	0.095	0.096	79.152%		
X		0.013	0.009	0.093	0.118	0.098	78.342%		
σ		0.014	0.005	0.029	0.030	0.008	1.163%		
%RSD		108.100	50.690	31.110	25.840	7.980	1.485		

180-37952-C-7-B MS

11/5/2014 5:40:33 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	67.970%	40.020	747.700	860.700	0.000	66710.000	56680.000	57060.000
2	17:39:48	66.525%	42.760	797.400	883.500	0.000	67630.000	57280.000	57980.000
3	17:39:56	65.193%	42.520	775.500	892.800	0.000	70090.000	59430.000	59890.000
X		66.563%	41.770	773.500	879.000	0.000	68140.000	57800.000	58310.000
σ		1.389%	1.521	24.960	16.510	0.000	1744.000	1446.000	1442.000
%RSD		2.087	3.642	3.226	1.878	0.000	2.560	2.501	2.472
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	2124.000	16950.000	0.000	50860.000	88710.000	90110.000	55.178%	1062.000
2	17:39:48	2161.000	17500.000	0.000	51800.000	91170.000	94560.000	54.902%	1094.000
3	17:39:56	2249.000	17780.000	0.000	52740.000	93630.000	96120.000	53.998%	1125.000
X		2178.000	17410.000	0.000	51800.000	91170.000	93600.000	54.693%	1094.000
σ		64.500	423.300	0.000	942.400	2459.000	3123.000	0.617%	31.270
%RSD		2.961	2.431	0.000	1.819	2.698	3.336	1.128	2.859
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	575.000	236.400	660.300	1084.000	1255.000	539.400	526.400	252.100
2	17:39:48	582.700	241.300	683.800	1104.000	1225.000	545.500	534.600	248.700
3	17:39:56	601.600	247.500	705.200	1122.000	1314.000	556.300	544.200	254.900
X		586.400	241.700	683.100	1104.000	1265.000	547.100	535.100	251.900
σ		13.700	5.529	22.460	18.770	44.910	8.564	8.890	3.110
%RSD		2.336	2.287	3.287	1.701	3.551	1.566	1.661	1.235
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	271.500	490.900	486.000	36.670	9.900	10.550	0.000	1424.000
2	17:39:48	274.500	489.100	491.700	36.890	9.073	10.990	0.000	1423.000
3	17:39:56	281.100	502.600	494.700	37.440	8.855	11.320	0.000	1406.000
X		275.700	494.200	490.800	37.000	9.276	10.950	0.000	1418.000
σ		4.930	7.369	4.430	0.394	0.551	0.391	0.000	10.360
%RSD		1.788	1.491	0.903	1.065	5.943	3.564	0.000	0.731
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	76.443%	1095.000	1148.000	52.680%	54.630	55.250	54.540	109.200
2	17:39:48	77.427%	1086.000	1143.000	52.697%	55.360	54.820	58.760	112.200
3	17:39:56	79.161%	1089.000	1146.000	53.562%	55.030	55.750	55.020	113.300
X		77.677%	1090.000	1146.000	52.980%	55.010	55.270	56.110	111.600
σ		1.376%	4.410	2.041	0.504%	0.363	0.465	2.309	2.082
%RSD		1.772	0.404	0.178	0.952	0.661	0.842	4.116	1.866
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:39:40	54.150%	2158.000	563.000	556.400	2180.000	2205.000	73.581%	73.552%
2	17:39:48	54.171%	2177.000	569.200	563.400	2213.000	2248.000	73.092%	73.705%
3	17:39:56	55.297%	2147.000	563.500	563.300	2195.000	2210.000	75.197%	75.024%
X		54.539%	2161.000	565.200	561.100	2196.000	2221.000	73.957%	74.094%
σ		0.657%	15.030	3.434	4.010	16.610	23.870	1.102%	0.809%
%RSD		1.204	0.696	0.608	0.715	0.756	1.075	1.489	1.092
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:39:40	51.740	49.850	21.150	21.470	21.700	67.834%		
2	17:39:48	52.540	49.940	21.010	22.210	21.760	68.724%		
3	17:39:56	53.030	50.350	21.550	21.790	21.530	68.860%		
X		52.440	50.050	21.240	21.820	21.660	68.472%		
σ		0.651	0.266	0.281	0.371	0.123	0.557%		
%RSD		1.241	0.532	1.324	1.701	0.567	0.814		

180-37952-C-7-C MSD

11/5/2014 5:45:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	64.870%	41.250	757.700	848.300	0.000	67200.000	56530.000	57140.000
2	17:44:52	63.054%	41.990	779.700	881.000	0.000	69000.000	58200.000	58490.000
3	17:45:00	61.078%	43.760	814.700	884.300	0.000	71110.000	59940.000	60190.000
X		63.001%	42.330	784.000	871.200	0.000	69100.000	58220.000	58610.000
σ		1.897%	1.287	28.730	19.880	0.000	1956.000	1702.000	1529.000
%RSD		3.011	3.039	3.665	2.282	0.000	2.830	2.923	2.608
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	2159.000	16960.000	0.000	49330.000	86390.000	88690.000	55.099%	1035.000
2	17:44:52	2192.000	17620.000	0.000	50930.000	90830.000	92970.000	54.186%	1083.000
3	17:45:00	2245.000	17820.000	0.000	51160.000	91170.000	94080.000	54.476%	1088.000
X		2199.000	17470.000	0.000	50470.000	89460.000	91920.000	54.587%	1068.000
σ		43.300	451.800	0.000	995.600	2668.000	2847.000	0.466%	29.260
%RSD		1.969	2.587	0.000	1.973	2.982	3.098	0.854	2.739
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	574.500	235.400	645.800	1072.000	1213.000	530.100	523.400	246.300
2	17:44:52	582.800	238.200	673.200	1079.000	1268.000	534.300	526.900	245.500
3	17:45:00	583.200	240.400	681.300	1083.000	1275.000	539.700	530.300	246.600
X		580.200	238.000	666.800	1078.000	1252.000	534.700	526.900	246.100
σ		4.944	2.493	18.600	5.288	33.960	4.823	3.443	0.596
%RSD		0.852	1.048	2.789	0.491	2.713	0.902	0.654	0.242
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	264.400	484.400	477.200	35.320	7.929	7.567	0.000	1384.000
2	17:44:52	268.300	486.400	486.400	35.850	9.167	5.293	0.000	1371.000
3	17:45:00	269.800	493.800	480.200	35.970	8.527	12.470	0.000	1377.000
X		267.500	488.200	481.300	35.710	8.541	8.444	0.000	1378.000
σ		2.763	4.949	4.711	0.347	0.619	3.668	0.000	6.330
%RSD		1.033	1.014	0.979	0.970	7.247	43.450	0.000	0.460
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	76.895%	1060.000	1115.000	53.135%	52.960	52.270	53.150	104.400
2	17:44:52	78.675%	1054.000	1115.000	53.499%	51.770	53.670	53.180	105.700
3	17:45:00	79.063%	1063.000	1107.000	54.169%	53.030	53.620	56.850	107.000
X		78.211%	1059.000	1112.000	53.601%	52.590	53.190	54.400	105.700
σ		1.156%	4.333	4.505	0.525%	0.710	0.798	2.129	1.280
%RSD		1.478	0.409	0.405	0.979	1.349	1.501	3.914	1.211
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:44	54.890%	2085.000	542.300	541.500	2124.000	2142.000	74.071%	74.222%
2	17:44:52	56.216%	2053.000	536.500	537.500	2103.000	2129.000	74.071%	74.568%
3	17:45:00	55.522%	2097.000	548.300	545.800	2139.000	2158.000	74.888%	75.485%
X		55.543%	2078.000	542.400	541.600	2122.000	2143.000	74.343%	74.758%
σ		0.663%	22.540	5.923	4.161	18.510	14.500	0.472%	0.653%
%RSD		1.194	1.085	1.092	0.768	0.872	0.677	0.635	0.873
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:44:44	50.880	49.010	19.960	21.990	21.170	68.024%		
2	17:44:52	51.180	48.770	20.280	21.490	21.050	69.041%		
3	17:45:00	51.360	48.690	20.190	21.000	20.840	70.088%		
X		51.140	48.820	20.140	21.490	21.020	69.051%		
σ		0.244	0.163	0.163	0.497	0.165	1.032%		
%RSD		0.476	0.334	0.811	2.313	0.784	1.494		

180-37952-C-12-A 11/5/2014 5:50:38 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	49.024%	-0.022	242.500	290.500	0.000	75610.000	22630.000	22790.000
2	17:49:55	51.189%	-0.026	234.500	273.600	0.000	74680.000	22610.000	22490.000
3	17:50:02	47.422%	0.297	246.000	281.600	0.000	78700.000	23590.000	23560.000
X		49.212%	0.083	241.000	281.900	0.000	76330.000	22940.000	22950.000
σ		1.890%	0.185	5.863	8.461	0.000	2106.000	559.800	550.700
%RSD		3.842	222.900	2.433	3.002	0.000	2.759	2.440	2.400
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	22.810	7358.000	0.000	8254.000	144100.000	147500.000	51.353%	3.033
2	17:49:55	27.500	6690.000	0.000	8608.000	151200.000	155600.000	51.354%	3.225
3	17:50:02	28.090	7857.000	0.000	8933.000	157500.000	160600.000	49.989%	3.119
X		26.140	7302.000	0.000	8598.000	150900.000	154600.000	50.898%	3.126
σ		2.897	585.900	0.000	339.700	6695.000	6592.000	0.788%	0.096
%RSD		11.080	8.024	0.000	3.950	4.436	4.265	1.548	3.084
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	40.120	102.400	20.060	4.597	366.700	1.220	2.649	7.908
2	17:49:55	42.460	105.000	21.360	4.579	319.900	1.248	2.464	7.997
3	17:50:02	42.110	106.600	22.000	4.280	334.900	1.367	2.861	8.347
X		41.560	104.700	21.140	4.485	340.500	1.279	2.658	8.084
σ		1.263	2.150	0.990	0.178	23.910	0.078	0.199	0.232
%RSD		3.039	2.054	4.683	3.971	7.023	6.103	7.470	2.874
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	7.462	7.768	8.109	2.150	0.191	6.676	0.000	215.900
2	17:49:55	8.739	8.065	8.885	2.330	0.290	0.229	0.000	212.300
3	17:50:02	8.511	7.440	8.140	2.397	0.191	-3.375	0.000	210.900
X		8.237	7.758	8.378	2.292	0.224	1.177	0.000	213.000
σ		0.681	0.312	0.439	0.128	0.058	5.092	0.000	2.588
%RSD		8.263	4.026	5.245	5.583	25.720	432.600	0.000	1.215
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	79.696%	5.786	5.692	54.719%	-0.106	0.015	0.063	0.122
2	17:49:55	80.888%	4.912	5.273	54.797%	-0.113	-0.033	0.079	0.128
3	17:50:02	80.893%	4.471	4.367	55.284%	-0.132	-0.056	0.031	0.107
X		80.492%	5.056	5.111	54.933%	-0.117	-0.025	0.058	0.119
σ		0.690%	0.669	0.677	0.306%	0.013	0.036	0.025	0.011
%RSD		0.857	13.240	13.250	0.557	11.510	146.700	42.980	8.895
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:47	57.845%	3.268	0.113	-0.703	76.170	79.270	74.929%	75.685%
2	17:49:55	58.115%	2.666	0.004	-0.796	74.730	77.740	76.578%	75.916%
3	17:50:02	58.418%	2.234	0.132	-0.692	75.760	75.900	76.784%	76.021%
X		58.126%	2.723	0.083	-0.730	75.550	77.640	76.097%	75.874%
σ		0.287%	0.519	0.069	0.057	0.746	1.692	1.017%	0.172%
%RSD		0.494	19.070	83.360	7.823	0.988	2.179	1.336	0.227
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:49:47	0.339	0.319	0.055	0.067	0.059	70.482%		
2	17:49:55	0.316	0.270	0.079	0.045	0.073	69.952%		
3	17:50:02	0.243	0.265	0.028	0.056	0.054	70.267%		
X		0.299	0.285	0.054	0.056	0.062	70.234%		
σ		0.050	0.030	0.026	0.011	0.010	0.267%		
%RSD		16.640	10.420	47.480	19.370	16.220	0.380		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	49.521%	-0.144	23.040	23.700	0.000	7521.000	4796.000	4730.000
2	17:54:56	49.766%	-0.157	12.450	15.610	0.000	7521.000	4756.000	4780.000
3	17:55:04	48.892%	0.023	5.527	11.410	0.000	8095.000	4771.000	4716.000
X		49.393%	-0.093	13.670	16.900	0.000	7712.000	4775.000	4742.000
σ		0.451%	0.100	8.819	6.248	0.000	331.300	20.130	33.810
%RSD		0.912	108.000	64.500	36.960	0.000	4.296	0.422	0.713
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	20.750	8297.000	0.000	3084.000	69980.000	71580.000	51.515%	2.063
2	17:54:56	21.390	8359.000	0.000	3096.000	71910.000	72910.000	51.892%	1.666
3	17:55:04	23.570	8698.000	0.000	3218.000	74850.000	76270.000	50.521%	2.224
X		21.910	8451.000	0.000	3132.000	72250.000	73590.000	51.310%	1.985
σ		1.476	215.700	0.000	74.150	2454.000	2416.000	0.708%	0.287
%RSD		6.737	2.553	0.000	2.367	3.397	3.283	1.380	14.460
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	34.670	15.720	0.940	8.001	144.700	0.149	1.206	7.839
2	17:54:56	36.620	16.610	1.028	7.856	161.400	0.227	1.148	7.859
3	17:55:04	37.130	17.730	1.024	7.674	162.400	0.163	1.269	8.446
X		36.140	16.680	0.997	7.844	156.200	0.180	1.208	8.048
σ		1.299	1.003	0.049	0.164	9.931	0.041	0.060	0.345
%RSD		3.594	6.014	4.953	2.088	6.359	23.090	5.004	4.283
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	7.263	3.461	4.248	1.508	0.167	0.902	0.000	65.310
2	17:54:56	8.261	4.140	4.125	1.448	0.008	-4.632	0.000	65.630
3	17:55:04	7.811	4.134	4.325	1.452	0.060	1.855	0.000	65.140
X		7.778	3.911	4.233	1.469	0.078	-0.625	0.000	65.360
σ		0.500	0.391	0.101	0.033	0.081	3.503	0.000	0.250
%RSD		6.431	9.984	2.378	2.280	103.500	560.300	0.000	0.382
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	78.932%	0.892	1.132	54.759%	-0.160	-0.040	-0.001	0.043
2	17:54:56	79.240%	0.780	1.199	54.878%	-0.106	-0.052	0.031	0.015
3	17:55:04	80.497%	0.829	0.674	55.853%	-0.143	-0.056	-0.001	0.009
X		79.556%	0.834	1.002	55.163%	-0.137	-0.049	0.009	0.022
σ		0.829%	0.056	0.286	0.600%	0.028	0.008	0.018	0.018
%RSD		1.042	6.711	28.530	1.088	20.190	17.010	197.700	81.240
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:54:48	57.289%	0.534	-0.277	-0.949	30.930	31.980	75.121%	75.937%
2	17:54:56	58.546%	0.302	-0.201	-1.081	32.310	30.670	75.698%	75.771%
3	17:55:04	58.382%	0.121	-0.280	-1.086	31.300	31.500	76.285%	76.790%
X		58.072%	0.319	-0.253	-1.039	31.510	31.380	75.702%	76.166%
σ		0.683%	0.207	0.045	0.078	0.714	0.665	0.582%	0.547%
%RSD		1.176	64.890	17.700	7.481	2.264	2.118	0.769	0.718
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:54:48	0.093	0.096	0.067	0.095	0.075	71.998%		
2	17:54:56	0.088	0.083	0.110	0.095	0.081	72.069%		
3	17:55:04	0.080	0.087	0.052	0.081	0.068	74.002%		
X		0.087	0.089	0.076	0.090	0.075	72.689%		
σ		0.007	0.006	0.030	0.008	0.007	1.137%		
%RSD		7.502	7.173	39.530	8.532	8.923	1.564		

180-38008-C-5-A

11/5/2014 6:00:44 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	50.164%	0.049	18.950	23.780	0.000	18570.000	11370.000	11250.000
2	17:59:59	49.270%	-0.110	9.008	14.160	0.000	18710.000	11440.000	11350.000
3	18:00:07	48.929%	-0.010	7.851	9.489	0.000	19100.000	11490.000	11570.000
X		49.454%	-0.024	11.940	15.810	0.000	18790.000	11430.000	11390.000
σ		0.638%	0.080	6.101	7.287	0.000	273.600	62.480	164.200
%RSD		1.290	338.200	51.110	46.090	0.000	1.456	0.546	1.442
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	17.710	7156.000	0.000	2815.000	80960.000	83140.000	51.029%	2.007
2	17:59:59	20.270	7302.000	0.000	2831.000	83990.000	85960.000	51.128%	1.616
3	18:00:07	20.550	8430.000	0.000	2928.000	86270.000	88980.000	50.295%	1.684
X		19.510	7629.000	0.000	2858.000	83740.000	86020.000	50.817%	1.769
σ		1.562	697.300	0.000	60.830	2663.000	2924.000	0.455%	0.209
%RSD		8.009	9.140	0.000	2.128	3.180	3.399	0.896	11.800
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	30.960	13.570	0.455	1.493	193.400	0.240	0.707	7.305
2	17:59:59	31.500	13.320	0.545	2.006	188.200	0.232	0.417	7.653
3	18:00:07	32.250	13.810	0.552	1.410	184.000	0.135	0.312	8.690
X		31.570	13.570	0.517	1.636	188.600	0.202	0.479	7.882
σ		0.649	0.247	0.054	0.323	4.706	0.058	0.205	0.721
%RSD		2.056	1.816	10.520	19.710	2.496	28.760	42.790	9.141
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	7.482	2.241	2.163	1.426	0.196	0.442	0.000	116.600
2	17:59:59	7.476	1.193	2.355	1.434	0.352	0.832	0.000	116.000
3	18:00:07	7.853	1.553	2.485	1.472	0.193	-3.280	0.000	115.000
X		7.604	1.662	2.334	1.444	0.247	-0.669	0.000	115.900
σ		0.216	0.532	0.162	0.025	0.091	2.270	0.000	0.782
%RSD		2.842	32.010	6.921	1.719	36.720	339.400	0.000	0.675
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	78.444%	0.233	0.240	53.755%	-0.130	-0.080	-0.001	-0.024
2	17:59:59	78.979%	0.208	0.337	54.341%	-0.142	-0.046	-0.001	0.037
3	18:00:07	79.736%	0.366	0.303	54.901%	-0.127	-0.070	0.015	0.030
X		79.053%	0.269	0.293	54.333%	-0.133	-0.065	0.004	0.014
σ		0.649%	0.085	0.049	0.573%	0.007	0.017	0.009	0.033
%RSD		0.822	31.740	16.730	1.055	5.588	26.380	230.500	231.500
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:59:51	57.149%	-0.292	-0.343	-1.156	41.290	40.260	74.620%	73.968%
2	17:59:59	56.421%	-0.355	-0.394	-1.126	40.780	37.350	75.485%	76.065%
3	18:00:07	57.008%	-0.072	-0.354	-1.152	38.840	40.720	76.237%	75.949%
X		56.859%	-0.240	-0.363	-1.145	40.300	39.440	75.447%	75.327%
σ		0.386%	0.149	0.027	0.016	1.293	1.828	0.809%	1.179%
%RSD		0.679	62.030	7.377	1.423	3.207	4.634	1.072	1.565
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:59:51	0.070	0.069	0.065	0.026	0.046	71.118%		
2	17:59:59	0.045	0.049	0.004	0.040	0.036	72.024%		
3	18:00:07	0.072	0.060	0.044	0.078	0.056	71.086%		
X		0.062	0.059	0.038	0.048	0.046	71.409%		
σ		0.015	0.010	0.031	0.027	0.010	0.533%		
%RSD		24.700	16.730	82.340	55.310	22.010	0.746		



180-37988-A-1-A

11/5/2014 6:05:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	49.138%	0.608	94.360	117.500	0.000	19180.000	5329.000	5251.000
2	18:05:04	47.452%	0.772	94.230	110.500	0.000	19680.000	5322.000	5286.000
3	18:05:11	47.305%	0.632	95.090	103.200	0.000	19660.000	5393.000	5407.000
X		47.965%	0.671	94.560	110.400	0.000	19510.000	5348.000	5315.000
σ		1.018%	0.089	0.467	7.103	0.000	282.600	38.930	81.780
%RSD		2.123	13.250	0.493	6.434	0.000	1.449	0.728	1.539
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	2101.000	7607.000	0.000	2063.000	28970.000	28180.000	49.663%	2.862
2	18:05:04	2180.000	7895.000	0.000	2090.000	29930.000	29220.000	49.428%	3.796
3	18:05:11	2187.000	8074.000	0.000	2128.000	30520.000	29820.000	49.503%	2.712
X		2156.000	7859.000	0.000	2093.000	29810.000	29070.000	49.531%	3.123
σ		47.530	235.400	0.000	32.740	782.400	829.700	0.120%	0.588
%RSD		2.204	2.995	0.000	1.564	2.625	2.854	0.243	18.820
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	36.710	15.790	302.400	48.860	118.600	9.837	14.810	33.290
2	18:05:04	37.070	16.460	315.400	47.800	105.400	10.120	15.050	33.500
3	18:05:11	38.630	17.120	317.900	48.410	93.920	10.180	14.770	34.750
X		37.470	16.460	311.900	48.360	106.000	10.040	14.880	33.850
σ		1.022	0.666	8.323	0.530	12.360	0.182	0.152	0.787
%RSD		2.727	4.048	2.668	1.095	11.660	1.811	1.025	2.324
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	37.000	140.500	139.900	1.145	0.991	4.876	0.000	121.400
2	18:05:04	35.970	137.800	144.000	1.161	0.802	1.813	0.000	118.500
3	18:05:11	36.230	140.600	136.200	1.120	0.792	1.516	0.000	119.000
X		36.400	139.600	140.000	1.142	0.862	2.735	0.000	119.600
σ		0.532	1.603	3.922	0.021	0.112	1.860	0.000	1.538
%RSD		1.460	1.148	2.801	1.805	12.970	68.000	0.000	1.286
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	84.966%	0.103	0.298	53.348%	-0.148	-0.019	0.801	1.060
2	18:05:04	86.632%	0.121	0.096	53.834%	-0.123	-0.073	1.056	0.742
3	18:05:11	88.013%	0.160	0.353	54.012%	-0.093	-0.065	1.169	0.821
X		86.537%	0.128	0.249	53.731%	-0.121	-0.052	1.009	0.874
σ		1.526%	0.029	0.135	0.344%	0.027	0.029	0.189	0.165
%RSD		1.763	22.790	54.320	0.640	22.600	55.860	18.690	18.910
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:56	55.931%	-0.261	0.380	-0.348	29.160	27.390	75.099%	74.874%
2	18:05:04	56.590%	-0.341	0.326	-0.424	29.870	28.790	75.247%	75.959%
3	18:05:11	56.749%	-0.343	0.453	-0.447	28.580	29.570	76.187%	75.590%
X		56.424%	-0.315	0.386	-0.406	29.200	28.580	75.511%	75.474%
σ		0.434%	0.047	0.064	0.052	0.642	1.100	0.590%	0.552%
%RSD		0.769	14.870	16.510	12.840	2.199	3.849	0.782	0.731
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:04:56	0.057	0.071	9.509	10.420	9.803	69.967%		
2	18:05:04	0.089	0.056	10.110	9.886	9.991	70.637%		
3	18:05:11	0.088	0.064	9.974	9.749	9.686	71.352%		
X		0.078	0.064	9.866	10.020	9.827	70.652%		
σ		0.018	0.008	0.316	0.354	0.154	0.693%		
%RSD		23.470	12.100	3.206	3.536	1.568	0.980		

180-37988-A-1-A SD@5

11/5/2014 6:10:52 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	57.714%	-0.118	28.290	34.710	0.000	2914.000	899.400	838.600
2	18:10:08	55.779%	-0.017	21.350	25.450	0.000	3063.000	920.100	916.100
3	18:10:16	55.323%	0.045	13.490	20.390	0.000	3105.000	929.300	924.300
X		56.272%	-0.030	21.040	26.850	0.000	3027.000	916.300	893.000
σ		1.269%	0.082	7.402	7.262	0.000	100.600	15.300	47.310
%RSD		2.256	276.600	35.180	27.050	0.000	3.323	1.670	5.298
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	344.500	1489.000	0.000	337.400	4602.000	4425.000	63.583%	0.653
2	18:10:08	356.600	1533.000	0.000	367.600	5162.000	4726.000	61.244%	1.813
3	18:10:16	356.300	1523.000	0.000	376.100	5189.000	4908.000	60.219%	1.189
X		352.500	1515.000	0.000	360.300	4984.000	4686.000	61.682%	1.218
σ		6.855	23.370	0.000	20.350	331.000	244.100	1.724%	0.580
%RSD		1.945	1.543	0.000	5.647	6.640	5.209	2.795	47.650
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	12.840	3.769	48.520	8.755	0.766	1.602	2.379	8.707
2	18:10:08	12.580	3.990	52.240	9.079	11.630	1.837	2.796	9.455
3	18:10:16	13.290	4.226	54.230	9.154	10.990	1.654	3.339	10.360
X		12.900	3.995	51.660	8.996	7.796	1.698	2.838	9.509
σ		0.358	0.229	2.895	0.212	6.096	0.123	0.481	0.830
%RSD		2.777	5.723	5.603	2.355	78.200	7.266	16.960	8.724
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	9.137	27.970	25.680	0.284	0.269	-4.484	0.000	26.190
2	18:10:08	9.351	27.390	29.450	0.327	0.073	0.724	0.000	26.260
3	18:10:16	9.840	27.810	29.250	0.266	0.048	-0.487	0.000	26.560
X		9.443	27.720	28.130	0.293	0.130	-1.416	0.000	26.340
σ		0.360	0.300	2.121	0.031	0.121	2.726	0.000	0.194
%RSD		3.814	1.083	7.540	10.720	93.160	192.500	0.000	0.737
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	78.197%	0.010	0.069	55.425%	-0.154	-0.070	0.127	0.161
2	18:10:08	78.748%	-0.002	-0.002	55.860%	-0.161	-0.085	0.174	0.230
3	18:10:16	79.189%	0.029	0.058	56.642%	-0.151	-0.089	0.142	0.213
X		78.711%	0.012	0.042	55.976%	-0.155	-0.082	0.148	0.201
σ		0.497%	0.015	0.039	0.616%	0.005	0.010	0.024	0.036
%RSD		0.631	125.000	92.640	1.101	3.468	12.160	16.050	17.970
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:10:00	58.109%	-0.512	-0.279	-1.093	5.851	5.716	74.760%	74.685%
2	18:10:08	58.797%	-0.580	-0.303	-1.068	5.640	5.880	75.298%	75.852%
3	18:10:16	58.253%	-0.483	-0.236	-1.155	5.525	5.894	75.052%	76.456%
X		58.386%	-0.525	-0.273	-1.105	5.672	5.830	75.037%	75.664%
σ		0.363%	0.049	0.034	0.044	0.165	0.099	0.269%	0.900%
%RSD		0.621	9.424	12.430	4.023	2.911	1.702	0.359	1.190
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:10:00	0.009	0.020	1.878	2.171	1.985	75.845%		
2	18:10:08	0.045	0.022	1.973	1.913	1.970	75.887%		
3	18:10:16	0.019	0.024	1.856	1.956	1.927	75.963%		
X		0.024	0.022	1.902	2.014	1.961	75.898%		
σ		0.019	0.002	0.062	0.138	0.030	0.060%		
%RSD		76.120	9.210	3.261	6.870	1.525	0.079		

CCV 1369903 11/5/2014 6:15:58 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	69.862%	88.950	105.800	105.400	0.000	53450.000	47480.000	47980.000
2	18:15:12	68.938%	93.950	100.700	105.700	0.000	54580.000	48540.000	48910.000
3	18:15:20	69.187%	96.790	93.030	103.000	0.000	54950.000	48990.000	49650.000
X		69.329%	93.228%	99.831%	104.697%	0.000	108.657%	96.676%	97.698%
σ		0.478%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.689	4.254	6.442	1.394	0.000	1.438	1.604	1.712
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	498.000	5975.000	0.000	52520.000	50390.000	50580.000	57.779%	104.600
2	18:15:12	508.300	6150.000	0.000	54300.000	52720.000	53380.000	56.899%	106.200
3	18:15:20	514.800	6295.000	0.000	55690.000	54590.000	54930.000	56.698%	109.000
X		101.410%	122.802%	0.000	108.337%	105.140%	105.930%	57.125%	106.568%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.575%	n/a
%RSD		1.668	2.608	0.000	2.934	4.006	4.162	1.007	2.094
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	103.600	103.500	495.900	25690.000	25020.000	102.400	104.000	100.600
2	18:15:12	105.100	105.300	521.400	26090.000	25340.000	102.400	101.200	101.400
3	18:15:20	105.900	106.900	531.100	26470.000	25410.000	104.500	102.000	100.900
X		104.861%	105.247%	103.228%	104.340%	101.019%	103.105%	102.414%	100.977%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.084	1.631	3.520	1.503	0.826	1.160	1.426	0.363
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	104.000	99.070	100.200	93.190	93.820	91.520	0.000	87.800
2	18:15:12	105.700	100.500	98.510	93.610	91.340	93.070	0.000	87.190
3	18:15:20	104.400	103.100	102.100	93.330	94.210	92.320	0.000	86.290
X		104.682%	100.908%	100.271%	93.375%	93.124%	92.304%	0.000	87.096%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.828	2.046	1.780	0.228	1.670	0.842	0.000	0.872
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	71.343%	100.200	103.700	52.320%	106.400	107.000	107.400	109.200
2	18:15:12	72.899%	101.700	106.500	53.095%	104.800	106.300	109.100	109.600
3	18:15:20	73.881%	102.100	105.800	53.055%	104.800	105.600	105.400	108.600
X		72.708%	101.333%	105.356%	52.823%	105.329%	106.307%	107.321%	109.128%
σ		1.280%	n/a	n/a	0.437%	n/a	n/a	n/a	n/a
%RSD		1.760	0.988	1.385	0.826	0.903	0.660	1.721	0.464
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:04	53.720%	106.300	105.400	104.700	103.300	101.500	70.687%	71.641%
2	18:15:12	54.664%	102.000	104.600	103.500	99.620	98.960	71.390%	72.270%
3	18:15:20	54.895%	102.800	106.500	104.900	99.490	102.300	71.859%	72.635%
X		54.426%	103.696%	105.490%	104.400%	100.788%	100.919%	71.312%	72.182%
σ		0.622%	n/a	n/a	n/a	n/a	n/a	0.590%	0.503%
%RSD		1.143	2.176	0.911	0.716	2.122	1.731	0.827	0.697
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:15:04	105.600	102.300	104.400	107.500	106.000	70.079%		
2	18:15:12	104.700	101.200	104.500	106.600	105.100	70.303%		
3	18:15:20	106.400	103.100	105.700	108.300	106.400	69.773%		
X		105.555%	102.198%	104.872%	107.451%	105.815%	70.052%		
σ		n/a	n/a	n/a	n/a	n/a	0.266%		
%RSD		0.800	0.940	0.664	0.812	0.605	0.380		

CCB3 11/5/2014 6:24:59 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	80.949%	-0.237	12.350	14.220	0.000	-44.420	12.080	4.463
2	18:24:14	78.714%	-0.300	4.198	5.463	0.000	-22.720	19.320	8.266
3	18:24:22	77.486%	-0.255	-0.458	-1.058	0.000	-19.150	18.610	14.150
X		79.050%	-0.264	5.364	6.210	0.000	-28.760	16.670	8.960
σ		1.756%	0.033	6.485	7.669	0.000	13.680	3.991	4.882
%RSD		2.221	12.330	120.900	123.500	0.000	47.560	23.940	54.480
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	4.238	101.600	0.000	15.020	10.200	12.740	73.208%	0.037
2	18:24:14	5.849	56.870	0.000	19.170	1.996	14.550	72.068%	0.040
3	18:24:22	6.965	35.250	0.000	23.180	0.509	14.870	70.158%	0.016
X		5.684	64.590	0.000	19.120	4.235	14.050	71.811%	0.031
σ		1.371	33.860	0.000	4.082	5.219	1.150	1.541%	0.013
%RSD		24.130	52.430	0.000	21.350	123.200	8.184	2.146	41.560
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	0.065	0.094	0.188	14.470	0.125	-0.046	-0.008	1.530
2	18:24:14	0.045	0.112	0.192	16.370	-6.121	-0.002	-0.068	1.548
3	18:24:22	0.079	0.095	0.202	16.570	2.237	-0.049	0.013	1.751
X		0.063	0.100	0.194	15.800	-1.253	-0.032	-0.021	1.610
σ		0.017	0.010	0.007	1.159	4.346	0.026	0.042	0.123
%RSD		26.630	10.250	3.843	7.333	346.900	80.710	198.300	7.608
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	1.659	0.042	0.221	0.023	-0.061	4.506	0.000	0.123
2	18:24:14	1.427	0.431	0.072	0.002	0.055	-2.094	0.000	0.205
3	18:24:22	1.639	0.159	0.228	0.018	0.032	-2.637	0.000	0.150
X		1.575	0.211	0.174	0.014	0.009	-0.075	0.000	0.159
σ		0.128	0.200	0.088	0.011	0.061	3.976	0.000	0.042
%RSD		8.145	94.890	50.900	78.890	686.100	5293.000	0.000	26.330
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	79.865%	0.195	0.225	69.287%	-0.106	-0.077	0.012	-0.003
2	18:24:14	80.933%	0.269	0.139	69.631%	-0.138	-0.074	0.025	-0.003
3	18:24:22	81.644%	0.218	0.125	70.269%	-0.148	-0.055	0.024	0.013
X		80.814%	0.227	0.163	69.729%	-0.131	-0.069	0.020	0.002
σ		0.895%	0.038	0.054	0.498%	0.022	0.012	0.007	0.009
%RSD		1.108	16.530	33.440	0.714	16.730	18.010	36.980	427.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:24:06	69.503%	-0.595	-0.229	-1.043	0.007	0.091	73.165%	72.926%
2	18:24:14	69.330%	-0.608	-0.235	-1.068	0.066	0.124	74.406%	73.829%
3	18:24:22	70.795%	-0.719	-0.206	-1.100	0.006	0.089	74.504%	74.477%
X		69.876%	-0.641	-0.223	-1.070	0.026	0.101	74.025%	73.744%
σ		0.801%	0.068	0.015	0.028	0.035	0.020	0.747%	0.779%
%RSD		1.146	10.620	6.935	2.648	131.800	19.330	1.009	1.056
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:24:06	0.027	0.026	0.152	0.097	0.115	75.779%		
2	18:24:14	0.052	0.047	0.119	0.130	0.134	76.404%		
3	18:24:22	0.052	0.046	0.116	0.095	0.102	76.738%		
X		0.044	0.040	0.129	0.107	0.117	76.307%		
σ		0.015	0.012	0.020	0.020	0.016	0.487%		
%RSD		33.120	30.740	15.600	18.340	13.970	0.638		

180-37988-A-1-B MS

11/5/2014 6:30:05 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	55.032%	48.030	1046.000	1124.000	0.000	81720.000	57380.000	57760.000
2	18:29:20	52.210%	52.380	1070.000	1179.000	0.000	85780.000	59840.000	60600.000
3	18:29:28	49.942%	53.380	1107.000	1202.000	0.000	88260.000	61390.000	62080.000
X		52.395%	51.260	1074.000	1168.000	0.000	85250.000	59540.000	60140.000
σ		2.550%	2.846	30.700	40.500	0.000	3302.000	2022.000	2193.000
%RSD		4.866	5.553	2.858	3.466	0.000	3.873	3.397	3.646
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	4694.000	18480.000	0.000	52310.000	81360.000	83070.000	48.644%	1073.000
2	18:29:20	4919.000	19330.000	0.000	53780.000	84330.000	87970.000	47.905%	1132.000
3	18:29:28	5049.000	20050.000	0.000	55040.000	87940.000	90960.000	47.525%	1161.000
X		4887.000	19290.000	0.000	53710.000	84540.000	87330.000	48.025%	1122.000
σ		179.300	785.100	0.000	1365.000	3293.000	3982.000	0.569%	44.980
%RSD		3.669	4.071	0.000	2.541	3.895	4.560	1.185	4.009
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	599.300	246.500	807.600	1173.000	1302.000	559.300	550.600	277.800
2	18:29:20	609.600	252.500	847.200	1206.000	1343.000	572.400	559.200	281.400
3	18:29:28	620.300	256.900	867.200	1221.000	1361.000	573.600	564.100	281.100
X		609.800	252.000	840.700	1200.000	1335.000	568.400	558.000	280.100
σ		10.490	5.237	30.350	24.280	30.690	7.913	6.847	1.991
%RSD		1.721	2.078	3.610	2.023	2.298	1.392	1.227	0.711
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	298.500	620.900	624.000	36.010	10.230	10.670	0.000	902.000
2	18:29:20	304.500	636.800	623.900	35.840	9.682	10.570	0.000	884.700
3	18:29:28	303.700	633.900	634.300	36.560	10.650	13.450	0.000	878.400
X		302.200	630.500	627.400	36.140	10.190	11.560	0.000	888.300
σ		3.265	8.468	5.946	0.378	0.486	1.631	0.000	12.230
%RSD		1.080	1.343	0.948	1.046	4.767	14.100	0.000	1.377
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	79.432%	1027.000	1102.000	48.326%	54.610	55.070	58.900	112.700
2	18:29:20	82.304%	1026.000	1104.000	49.036%	55.200	55.180	55.980	109.900
3	18:29:28	83.016%	1014.000	1109.000	49.340%	54.990	53.740	56.070	107.900
X		81.584%	1023.000	1105.000	48.901%	54.930	54.670	56.990	110.200
σ		1.897%	7.089	3.898	0.521%	0.297	0.802	1.662	2.392
%RSD		2.326	0.693	0.353	1.065	0.541	1.467	2.917	2.171
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:29:13	50.021%	2135.000	562.900	562.900	2065.000	2056.000	70.753%	71.441%
2	18:29:20	51.100%	2135.000	566.400	563.300	2061.000	2059.000	71.439%	71.906%
3	18:29:28	52.167%	2095.000	553.600	553.200	2014.000	2034.000	72.505%	72.645%
X		51.096%	2121.000	561.000	559.800	2047.000	2050.000	71.566%	71.997%
σ		1.073%	23.010	6.608	5.707	28.570	13.370	0.883%	0.607%
%RSD		2.100	1.085	1.178	1.020	1.396	0.652	1.233	0.843
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:29:13	52.790	50.590	31.440	31.680	31.410	62.830%		
2	18:29:20	53.250	50.600	31.770	31.890	31.950	62.953%		
3	18:29:28	51.340	49.250	30.720	32.030	31.310	64.889%		
X		52.460	50.150	31.310	31.870	31.560	63.557%		
σ		0.999	0.774	0.535	0.172	0.344	1.155%		
%RSD		1.904	1.543	1.710	0.541	1.091	1.817		

180-37988-A-1-C MSD

11/5/2014 6:35:10 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	49.425%	52.660	1077.000	1221.000	0.000	88640.000	61410.000	61630.000
2	18:34:26	48.176%	55.650	1141.000	1270.000	0.000	91860.000	63500.000	62940.000
3	18:34:34	46.917%	56.210	1160.000	1292.000	0.000	94120.000	64720.000	64900.000
X		48.173%	54.840	1126.000	1261.000	0.000	91540.000	63210.000	63160.000
σ		1.254%	1.909	43.390	36.550	0.000	2757.000	1674.000	1645.000
%RSD		2.603	3.480	3.853	2.899	0.000	3.012	2.648	2.604
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	5040.000	19730.000	0.000	52380.000	83560.000	85910.000	49.895%	1117.000
2	18:34:26	5205.000	20610.000	0.000	54610.000	87990.000	90490.000	49.070%	1167.000
3	18:34:34	5352.000	21160.000	0.000	56320.000	90480.000	93330.000	48.327%	1207.000
X		5199.000	20500.000	0.000	54440.000	87340.000	89910.000	49.097%	1163.000
σ		156.200	720.100	0.000	1976.000	3506.000	3743.000	0.784%	44.980
%RSD		3.004	3.513	0.000	3.629	4.014	4.163	1.597	3.866
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	601.800	249.100	824.900	1192.000	1334.000	557.700	547.600	279.300
2	18:34:26	616.000	257.100	866.600	1210.000	1391.000	569.500	569.100	283.000
3	18:34:34	633.300	262.200	895.200	1227.000	1395.000	578.200	570.000	284.100
X		617.000	256.100	862.300	1210.000	1373.000	568.500	562.200	282.100
σ		15.800	6.616	35.350	17.520	34.120	10.280	12.690	2.501
%RSD		2.560	2.583	4.100	1.448	2.484	1.808	2.256	0.887
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	298.500	617.500	622.100	35.200	8.982	13.800	0.000	891.000
2	18:34:26	305.800	644.500	623.300	35.460	9.249	13.650	0.000	890.500
3	18:34:34	310.100	631.600	638.800	36.540	9.472	13.450	0.000	889.200
X		304.800	631.200	628.100	35.730	9.235	13.630	0.000	890.200
σ		5.864	13.530	9.276	0.707	0.245	0.177	0.000	0.955
%RSD		1.924	2.143	1.477	1.979	2.657	1.298	0.000	0.107
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	82.863%	1031.000	1111.000	49.865%	54.930	55.260	55.680	109.700
2	18:34:26	83.859%	1038.000	1117.000	50.292%	54.590	55.980	55.650	111.500
3	18:34:34	84.005%	1030.000	1123.000	49.685%	55.910	56.800	57.010	109.900
X		83.576%	1033.000	1117.000	49.947%	55.140	56.010	56.110	110.400
σ		0.622%	4.385	5.831	0.312%	0.682	0.767	0.776	0.988
%RSD		0.744	0.424	0.522	0.624	1.237	1.370	1.384	0.896
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:19	51.516%	2148.000	563.000	560.800	2059.000	2064.000	71.625%	72.862%
2	18:34:26	51.611%	2151.000	566.400	565.900	2061.000	2082.000	72.930%	71.826%
3	18:34:34	51.848%	2152.000	567.400	566.700	2071.000	2078.000	72.953%	73.680%
X		51.658%	2150.000	565.600	564.500	2064.000	2075.000	72.503%	72.789%
σ		0.171%	1.916	2.282	3.207	6.205	9.760	0.760%	0.929%
%RSD		0.331	0.089	0.403	0.568	0.301	0.470	1.049	1.276
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:34:19	53.360	50.740	31.600	32.230	32.260	63.873%		
2	18:34:26	54.200	51.310	31.150	32.920	32.480	64.323%		
3	18:34:34	53.750	50.830	31.420	32.510	32.440	64.942%		
X		53.770	50.960	31.390	32.550	32.400	64.379%		
σ		0.421	0.304	0.222	0.350	0.118	0.537%		
%RSD		0.782	0.596	0.706	1.075	0.363	0.834		

180-38073-E-1-A

11/5/2014 6:40:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	48.509%	0.103	261.100	279.700	0.000	94280.000	30810.000	30950.000
2	18:39:32	47.499%	0.196	250.700	280.800	0.000	96820.000	31500.000	31760.000
3	18:39:40	47.493%	0.096	241.100	268.700	0.000	98080.000	32100.000	32100.000
X		47.834%	0.132	250.900	276.400	0.000	96390.000	31470.000	31600.000
σ		0.585%	0.055	9.966	6.713	0.000	1939.000	645.400	592.900
%RSD		1.223	42.080	3.971	2.429	0.000	2.012	2.051	1.876
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	140.200	13520.000	0.000	15070.000	150000.000	156300.000	49.065%	5.276
2	18:39:32	150.200	13850.000	0.000	15610.000	157800.000	163800.000	48.108%	6.370
3	18:39:40	154.100	14040.000	0.000	15760.000	162200.000	168100.000	47.762%	7.079
X		148.200	13800.000	0.000	15480.000	156700.000	162700.000	48.312%	6.242
σ		7.158	262.300	0.000	362.900	6136.000	5968.000	0.675%	0.909
%RSD		4.831	1.900	0.000	2.344	3.917	3.667	1.397	14.560
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	32.850	14.780	681.200	1134.000	1422.000	2.016	4.471	8.478
2	18:39:32	33.350	15.230	713.200	1154.000	1448.000	2.149	4.799	8.948
3	18:39:40	36.300	15.690	730.800	1172.000	1492.000	2.109	4.643	9.055
X		34.170	15.230	708.400	1153.000	1454.000	2.091	4.638	8.827
σ		1.862	0.456	25.170	18.970	35.320	0.068	0.164	0.307
%RSD		5.449	2.994	3.553	1.645	2.430	3.245	3.535	3.477
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	9.007	4.578	4.635	8.616	0.190	5.950	0.000	561.700
2	18:39:32	9.781	4.822	5.336	8.280	0.747	5.311	0.000	556.900
3	18:39:40	9.936	4.805	4.566	8.959	0.548	6.420	0.000	557.600
X		9.575	4.735	4.846	8.619	0.495	5.894	0.000	558.700
σ		0.498	0.136	0.426	0.339	0.282	0.557	0.000	2.615
%RSD		5.200	2.873	8.785	3.938	57.050	9.445	0.000	0.468
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	73.771%	19.650	21.190	49.810%	-0.141	-0.081	-0.001	0.121
2	18:39:32	74.661%	18.890	19.630	50.017%	-0.149	-0.056	-0.001	0.122
3	18:39:40	75.484%	19.350	19.220	50.086%	-0.101	-0.040	0.034	0.080
X		74.639%	19.300	20.010	49.971%	-0.130	-0.059	0.010	0.108
σ		0.857%	0.379	1.040	0.143%	0.026	0.021	0.021	0.024
%RSD		1.148	1.966	5.195	0.287	19.790	34.880	196.000	22.570
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:39:25	53.078%	2.736	0.139	-0.667	257.600	256.100	71.644%	72.401%
2	18:39:32	52.635%	1.984	0.191	-0.643	263.700	260.200	72.246%	71.914%
3	18:39:40	52.093%	1.458	0.177	-0.657	261.800	263.200	72.212%	72.068%
X		52.602%	2.059	0.169	-0.656	261.000	259.800	72.034%	72.128%
σ		0.493%	0.643	0.027	0.012	3.126	3.570	0.338%	0.249%
%RSD		0.937	31.200	15.930	1.871	1.198	1.374	0.470	0.345
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:39:25	0.301	0.284	0.462	0.500	0.441	64.213%		
2	18:39:32	0.304	0.218	0.358	0.399	0.396	62.870%		
3	18:39:40	0.271	0.236	0.359	0.421	0.383	62.686%		
X		0.292	0.246	0.393	0.440	0.407	63.257%		
σ		0.018	0.034	0.060	0.053	0.031	0.834%		
%RSD		6.219	13.830	15.180	12.090	7.549	1.318		

180-38073-E-2-A

11/5/2014 6:45:24 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	47.175%	-0.033	250.100	285.000	0.000	99830.000	32260.000	32720.000
2	18:44:38	45.641%	0.102	256.300	284.600	0.000	102200.000	33410.000	33400.000
3	18:44:46	45.501%	-0.104	262.300	291.600	0.000	103300.000	33670.000	33590.000
X		46.106%	-0.012	256.200	287.100	0.000	101800.000	33110.000	33240.000
σ		0.929%	0.104	6.091	3.953	0.000	1770.000	749.900	456.200
%RSD		2.014	894.600	2.377	1.377	0.000	1.739	2.265	1.373
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	111.200	14140.000	0.000	15820.000	160300.000	166400.000	47.727%	4.184
2	18:44:38	127.100	14670.000	0.000	16280.000	165100.000	172000.000	47.171%	5.451
3	18:44:46	115.900	14900.000	0.000	16500.000	169500.000	174700.000	47.319%	4.431
X		118.100	14570.000	0.000	16200.000	165000.000	171000.000	47.406%	4.689
σ		8.192	386.300	0.000	346.500	4616.000	4238.000	0.288%	0.671
%RSD		6.937	2.652	0.000	2.139	2.798	2.478	0.607	14.320
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	33.850	14.680	718.900	1036.000	1348.000	2.099	4.404	8.948
2	18:44:38	34.690	15.650	747.000	1042.000	1385.000	2.140	4.368	9.250
3	18:44:46	35.180	16.860	762.900	1046.000	1374.000	2.052	4.315	9.241
X		34.570	15.730	742.900	1041.000	1369.000	2.097	4.362	9.146
σ		0.671	1.090	22.300	5.270	18.850	0.044	0.044	0.172
%RSD		1.941	6.927	3.002	0.506	1.377	2.091	1.018	1.879
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	9.729	6.606	6.717	8.123	0.391	8.029	0.000	574.000
2	18:44:38	10.010	6.785	6.756	9.178	0.497	3.446	0.000	566.600
3	18:44:46	10.310	6.467	7.210	8.668	0.327	4.896	0.000	573.600
X		10.020	6.619	6.894	8.657	0.405	5.457	0.000	571.400
σ		0.290	0.159	0.274	0.528	0.086	2.342	0.000	4.160
%RSD		2.895	2.408	3.979	6.094	21.220	42.920	0.000	0.728
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	73.635%	17.120	19.380	49.508%	-0.165	-0.092	0.053	-0.001
2	18:44:38	75.296%	17.190	18.400	49.796%	-0.133	-0.044	-0.001	0.057
3	18:44:46	75.772%	18.090	18.070	49.430%	-0.120	-0.084	0.016	-0.009
X		74.901%	17.460	18.620	49.578%	-0.139	-0.074	0.023	0.016
σ		1.122%	0.539	0.680	0.193%	0.023	0.026	0.028	0.036
%RSD		1.498	3.088	3.655	0.389	16.380	35.260	122.100	227.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:44:30	51.751%	0.734	0.003	-0.631	268.100	268.100	70.915%	71.194%
2	18:44:38	52.492%	0.429	0.013	-0.717	265.000	265.800	71.029%	72.211%
3	18:44:46	52.351%	0.304	0.166	-0.675	267.700	267.300	72.063%	71.577%
X		52.198%	0.489	0.061	-0.674	266.900	267.100	71.336%	71.660%
σ		0.394%	0.221	0.091	0.043	1.688	1.165	0.632%	0.513%
%RSD		0.754	45.260	149.900	6.345	0.633	0.436	0.886	0.716
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:44:30	0.127	0.117	0.397	0.281	0.351	63.346%		
2	18:44:38	0.098	0.087	0.399	0.359	0.398	64.154%		
3	18:44:46	0.101	0.125	0.409	0.362	0.361	64.371%		
X		0.109	0.109	0.402	0.334	0.370	63.957%		
σ		0.016	0.020	0.007	0.046	0.025	0.540%		
%RSD		14.520	18.340	1.624	13.660	6.647	0.845		



180-38073-E-3-A

11/5/2014 6:50:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	50.044%	-0.160	171.300	197.900	0.000	225900.000	68490.000	69080.000
2	18:49:41	44.434%	-0.080	183.400	212.200	0.000	244300.000	73720.000	73080.000
3	18:49:49	45.143%	0.109	177.300	201.500	0.000	244800.000	74170.000	73900.000
X		46.540%	-0.044	177.300	203.900	0.000	238400.000	72120.000	72020.000
σ		3.055%	0.138	6.013	7.484	0.000	10760.000	3159.000	2579.000
%RSD		6.564	317.600	3.391	3.671	0.000	4.514	4.380	3.581
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	135.000	9283.000	0.000	2584.000	197700.000	204300.000	47.721%	4.185
2	18:49:41	150.600	10090.000	0.000	2715.000	208600.000	215600.000	46.761%	3.766
3	18:49:49	147.200	10100.000	0.000	2691.000	213200.000	220400.000	46.310%	4.145
X		144.300	9824.000	0.000	2663.000	206500.000	213500.000	46.931%	4.032
σ		8.237	468.500	0.000	69.650	7979.000	8256.000	0.721%	0.231
%RSD		5.710	4.769	0.000	2.615	3.864	3.868	1.536	5.738
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	35.540	14.900	4726.000	339.500	766.500	2.427	7.001	9.641
2	18:49:41	38.270	16.190	4964.000	341.600	733.800	2.673	7.927	10.380
3	18:49:49	37.180	16.290	5095.000	347.300	733.800	2.498	8.294	10.450
X		37.000	15.790	4928.000	342.800	744.700	2.533	7.741	10.160
σ		1.375	0.776	187.000	4.038	18.890	0.127	0.666	0.447
%RSD		3.717	4.910	3.794	1.178	2.536	4.997	8.607	4.404
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	11.910	5.431	5.834	5.615	0.345	3.884	0.000	335.200
2	18:49:41	11.740	4.641	5.324	5.487	0.315	2.531	0.000	331.600
3	18:49:49	11.590	4.257	5.364	5.828	0.318	6.188	0.000	338.100
X		11.750	4.776	5.508	5.643	0.326	4.201	0.000	334.900
σ		0.161	0.598	0.284	0.172	0.016	1.849	0.000	3.239
%RSD		1.368	12.530	5.153	3.048	4.957	44.010	0.000	0.967
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	71.682%	5.849	6.275	47.688%	-0.163	-0.091	0.092	0.023
2	18:49:41	72.563%	6.034	6.448	47.680%	-0.163	-0.091	0.017	0.099
3	18:49:49	72.295%	5.596	6.761	47.077%	-0.167	-0.087	0.017	0.053
X		72.180%	5.826	6.495	47.482%	-0.165	-0.090	0.042	0.058
σ		0.452%	0.220	0.246	0.351%	0.002	0.003	0.043	0.038
%RSD		0.626	3.779	3.792	0.738	1.400	2.815	102.700	65.460
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:33	49.963%	0.717	0.171	-0.758	117.900	113.600	69.075%	68.972%
2	18:49:41	50.304%	0.430	0.088	-0.541	115.100	114.700	68.749%	69.955%
3	18:49:49	50.466%	0.381	0.094	-0.678	118.900	118.300	69.490%	69.874%
X		50.245%	0.509	0.118	-0.659	117.300	115.500	69.105%	69.600%
σ		0.257%	0.181	0.046	0.110	1.991	2.458	0.371%	0.546%
%RSD		0.511	35.590	39.270	16.610	1.697	2.127	0.538	0.784
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:49:33	0.084	0.057	0.600	0.567	0.566	61.806%		
2	18:49:41	0.086	0.090	0.510	0.544	0.538	62.416%		
3	18:49:49	0.090	0.060	0.642	0.574	0.569	61.380%		
X		0.087	0.069	0.584	0.562	0.557	61.867%		
σ		0.003	0.019	0.068	0.016	0.017	0.520%		
%RSD		3.919	27.050	11.570	2.791	3.051	0.841		

180-38073-E-4-A

11/5/2014 6:55:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	52.604%	-0.161	25.180	26.910	0.000	362.400	46.530	44.120
2	18:54:45	51.909%	-0.236	13.090	17.700	0.000	382.400	47.130	45.470
3	18:54:53	49.922%	-0.222	9.763	13.280	0.000	377.000	39.740	42.230
X		51.479%	-0.206	16.010	19.290	0.000	373.900	44.470	43.940
σ		1.392%	0.040	8.110	6.957	0.000	10.340	4.106	1.631
%RSD		2.704	19.300	50.650	36.060	0.000	2.765	9.234	3.711
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	21.600	163.800	0.000	90.640	94.050	121.700	48.938%	1.330
2	18:54:45	20.500	119.700	0.000	86.290	115.800	128.000	49.243%	1.763
3	18:54:53	23.290	94.960	0.000	87.240	123.300	136.900	49.265%	1.521
X		21.790	126.100	0.000	88.060	111.000	128.900	49.149%	1.538
σ		1.402	34.860	0.000	2.289	15.180	7.631	0.183%	0.217
%RSD		6.433	27.640	0.000	2.599	13.670	5.921	0.372	14.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	33.830	15.930	2.204	7.131	10.340	0.101	0.375	8.224
2	18:54:45	36.570	15.710	2.780	6.836	0.353	0.022	0.350	8.678
3	18:54:53	35.320	16.730	2.644	6.739	7.771	-0.002	0.298	8.850
X		35.240	16.120	2.543	6.902	6.156	0.041	0.341	8.584
σ		1.370	0.533	0.301	0.204	5.187	0.054	0.039	0.323
%RSD		3.888	3.308	11.840	2.957	84.260	133.000	11.510	3.767
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	8.505	2.167	1.688	0.737	-0.004	-2.934	0.000	0.319
2	18:54:45	8.205	1.471	2.455	0.815	0.020	3.421	0.000	0.302
3	18:54:53	9.274	1.979	2.329	0.741	-0.092	4.483	0.000	0.304
X		8.661	1.872	2.157	0.764	-0.025	1.656	0.000	0.308
σ		0.551	0.360	0.411	0.044	0.059	4.011	0.000	0.009
%RSD		6.363	19.240	19.050	5.737	232.200	242.100	0.000	3.004
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	73.044%	0.137	0.137	51.771%	-0.142	-0.105	0.016	-0.016
2	18:54:45	74.788%	0.213	0.268	52.151%	-0.158	-0.110	-0.002	0.005
3	18:54:53	75.809%	0.176	0.125	52.292%	-0.154	-0.098	0.033	0.013
X		74.547%	0.176	0.177	52.071%	-0.152	-0.104	0.016	0.001
σ		1.398%	0.038	0.080	0.270%	0.008	0.006	0.017	0.015
%RSD		1.876	21.650	45.130	0.518	5.434	5.800	109.300	2570.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:54:37	53.069%	-0.336	-0.381	-1.190	0.228	0.241	70.883%	71.624%
2	18:54:45	53.404%	-0.249	-0.413	-1.217	0.226	0.278	71.960%	71.394%
3	18:54:53	52.921%	-0.360	-0.373	-1.201	0.133	0.214	71.728%	71.847%
X		53.132%	-0.315	-0.389	-1.203	0.195	0.245	71.524%	71.621%
σ		0.247%	0.058	0.021	0.013	0.054	0.032	0.567%	0.226%
%RSD		0.466	18.570	5.482	1.100	27.870	13.170	0.792	0.316
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:54:37	0.044	0.040	0.035	0.025	0.041	65.326%		
2	18:54:45	0.063	0.056	0.048	0.028	0.030	67.009%		
3	18:54:53	0.040	0.040	0.056	0.009	0.042	66.071%		
X		0.049	0.045	0.046	0.021	0.037	66.135%		
σ		0.012	0.009	0.011	0.010	0.007	0.843%		
%RSD		24.870	20.270	23.160	49.170	18.190	1.275		

MB 180-123576/1-A

11/5/2014 7:04:31 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	73.013%	-0.349	11.600	12.610	0.000	15.220	6.675	4.202
2	19:03:46	73.659%	-0.358	-1.463	1.833	0.000	17.710	6.177	4.900
3	19:03:54	70.155%	-0.323	-1.847	-2.351	0.000	33.710	10.180	3.296
X		72.275%	-0.343	2.763	4.030	0.000	22.210	7.677	4.133
σ		1.865%	0.018	7.655	7.719	0.000	10.030	2.181	0.805
%RSD		2.580	5.209	277.000	191.500	0.000	45.150	28.410	19.470
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	3.927	100.900	0.000	59.480	33.800	46.910	59.928%	-0.026
2	19:03:46	6.076	57.120	0.000	74.320	37.410	51.310	58.337%	-0.125
3	19:03:54	6.895	36.200	0.000	76.020	47.780	59.870	56.740%	0.119
X		5.633	64.740	0.000	69.940	39.660	52.690	58.335%	-0.010
σ		1.533	33.020	0.000	9.098	7.254	6.587	1.594%	0.123
%RSD		27.220	51.000	0.000	13.010	18.290	12.500	2.733	1196.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	0.721	0.204	0.474	1.875	-10.870	-0.064	0.224	3.333
2	19:03:46	0.671	0.220	0.559	1.996	-15.400	-0.021	0.082	2.739
3	19:03:54	0.610	0.166	0.594	1.948	-6.688	-0.053	0.183	3.371
X		0.667	0.197	0.542	1.940	-10.990	-0.046	0.163	3.148
σ		0.056	0.027	0.062	0.061	4.359	0.022	0.073	0.355
%RSD		8.389	13.980	11.360	3.144	39.680	47.710	44.740	11.260
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	2.871	1.082	1.430	0.032	-0.065	1.308	0.000	0.098
2	19:03:46	2.551	0.943	0.927	0.013	-0.120	-0.818	0.000	0.127
3	19:03:54	3.346	1.026	1.261	0.012	-0.119	-4.975	0.000	0.134
X		2.923	1.017	1.206	0.019	-0.101	-1.495	0.000	0.120
σ		0.400	0.070	0.256	0.011	0.032	3.196	0.000	0.019
%RSD		13.680	6.852	21.210	59.760	31.240	213.800	0.000	16.220
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	69.834%	0.000	0.025	52.101%	-0.170	-0.094	-0.001	-0.009
2	19:03:46	71.382%	0.010	0.001	52.118%	-0.150	-0.102	-0.002	-0.031
3	19:03:54	71.090%	-0.002	-0.060	52.472%	-0.147	-0.082	-0.002	-0.009
X		70.769%	0.003	-0.012	52.230%	-0.156	-0.092	-0.002	-0.016
σ		0.822%	0.006	0.044	0.210%	0.012	0.010	0.000	0.012
%RSD		1.162	213.100	374.300	0.401	7.876	10.580	9.576	76.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:38	52.850%	-0.688	-0.440	-1.210	0.183	0.258	69.445%	69.474%
2	19:03:46	53.357%	-0.750	-0.425	-1.262	0.157	0.069	69.851%	69.960%
3	19:03:54	53.552%	-0.818	-0.456	-1.247	0.156	0.122	70.423%	69.571%
X		53.253%	-0.752	-0.441	-1.240	0.165	0.149	69.907%	69.668%
σ		0.363%	0.065	0.016	0.027	0.015	0.097	0.491%	0.257%
%RSD		0.681	8.653	3.605	2.148	9.112	65.070	0.702	0.369
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:03:38	0.032	0.024	0.028	0.031	0.020	70.105%		
2	19:03:46	0.007	0.025	0.039	0.012	0.032	69.855%		
3	19:03:54	0.007	0.019	0.018	0.034	0.028	70.492%		
X		0.016	0.022	0.028	0.026	0.027	70.150%		
σ		0.014	0.003	0.010	0.012	0.006	0.321%		
%RSD		91.870	13.940	36.830	46.550	22.210	0.457		

CRI 1370008 11/5/2014 7:09:34 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	62.572%	0.667	27.130	27.230	0.000	107.300	99.630	91.800
2	19:08:50	62.873%	0.862	14.280	15.790	0.000	120.300	106.100	96.620
3	19:08:58	61.991%	0.679	8.619	9.063	0.000	126.500	102.100	93.110
X		62.479%	73.604%	333.522%	347.221%	0.000	147.526%	102.592%	93.843%
σ		0.448%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.718	14.810	56.870	52.900	0.000	8.316	3.174	2.652
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	32.080	625.300	0.000	107.600	81.800	92.570	66.733%	4.794
2	19:08:50	33.980	596.600	0.000	116.400	88.070	102.300	65.639%	4.605
3	19:08:58	34.440	588.000	0.000	122.800	87.680	112.200	63.670%	4.099
X		111.671%	120.655%	0.000	115.597%	85.849%	102.358%	65.348%	89.993%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.552%	n/a
%RSD		3.736	3.242	0.000	6.597	4.093	9.593	2.375	7.988
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	1.106	1.864	4.047	52.340	32.680	0.397	1.012	4.217
2	19:08:50	1.266	1.975	4.586	51.430	39.180	0.384	0.922	4.353
3	19:08:58	1.396	1.907	4.898	54.390	43.830	0.394	1.313	4.027
X		125.564%	95.763%	90.210%	105.436%	77.121%	78.308%	108.219%	209.963%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		11.560	2.930	9.542	2.873	14.520	1.639	18.950	3.897
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	3.973	5.091	5.704	0.796	4.828	3.891	0.000	4.590
2	19:08:50	3.780	5.303	5.226	0.762	4.242	5.805	0.000	4.382
3	19:08:58	3.773	4.832	5.795	0.804	5.324	1.664	0.000	4.478
X		192.086%	101.505%	111.500%	78.737%	95.958%	75.733%	0.000	89.662%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.957	4.643	5.480	2.850	11.300	54.730	0.000	2.316
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	64.588%	4.521	4.846	49.559%	0.829	0.919	1.182	1.143
2	19:08:50	65.412%	4.814	4.651	49.895%	0.856	0.986	1.259	0.952
3	19:08:58	64.860%	4.982	5.562	49.734%	0.895	0.857	1.225	1.182
X		64.953%	95.449%	100.398%	49.729%	85.995%	92.089%	122.205%	109.248%
σ		0.420%	n/a	n/a	0.168%	n/a	n/a	n/a	n/a
%RSD		0.646	4.883	9.556	0.338	3.886	7.029	3.150	11.260
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:08:42	49.815%	4.803	1.554	0.540	10.270	10.220	65.754%	66.301%
2	19:08:50	50.573%	4.865	1.452	0.747	9.460	9.692	66.907%	67.046%
3	19:08:58	50.446%	4.577	1.448	0.633	10.390	9.889	67.110%	66.773%
X		50.278%	94.968%	74.230%	32.010%	100.417%	99.330%	66.591%	66.707%
σ		0.406%	n/a	n/a	n/a	n/a	n/a	0.731%	0.377%
%RSD		0.807	3.195	4.053	16.190	5.051	2.679	1.098	0.565
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:08:42	1.034	0.964	1.166	1.069	1.105	62.841%		
2	19:08:50	0.954	0.987	1.178	1.054	1.079	62.989%		
3	19:08:58	0.983	0.905	1.100	1.083	1.123	62.232%		
X		99.051%	95.209%	114.818%	106.894%	110.215%	62.687%		
σ		n/a	n/a	n/a	n/a	n/a	0.401%		
%RSD		4.105	4.431	3.674	1.373	1.998	0.640		

LCS 180-123576/2-A

11/5/2014 7:19:50 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	64.600%	38.960	746.100	831.800	0.000	56250.000	44910.000	45270.000
2	19:19:04	60.369%	43.230	827.400	898.100	0.000	58890.000	46840.000	46680.000
3	19:19:12	58.352%	44.930	828.200	913.100	0.000	61000.000	48440.000	48560.000
X		61.107%	42.370	800.500	881.000	0.000	58710.000	46730.000	46840.000
σ		3.189%	3.074	47.200	43.240	0.000	2376.000	1765.000	1651.000
%RSD		5.218	7.255	5.896	4.908	0.000	4.047	3.777	3.525
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	1997.000	9870.000	0.000	45680.000	48630.000	48880.000	51.666%	975.900
2	19:19:04	2060.000	10530.000	0.000	47660.000	51370.000	51270.000	51.258%	1019.000
3	19:19:12	2134.000	10710.000	0.000	47850.000	52580.000	53000.000	50.764%	1061.000
X		2063.000	10370.000	0.000	47060.000	50860.000	51050.000	51.229%	1019.000
σ		68.570	441.200	0.000	1201.000	2023.000	2066.000	0.452%	42.410
%RSD		3.323	4.256	0.000	2.552	3.978	4.048	0.882	4.164
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	541.100	223.600	452.700	1035.000	1081.000	517.100	507.500	241.100
2	19:19:04	543.400	226.400	471.900	1040.000	1172.000	521.500	517.000	240.200
3	19:19:12	557.000	230.800	487.300	1054.000	1141.000	524.700	515.900	245.300
X		547.200	227.000	470.600	1043.000	1131.000	521.100	513.500	242.200
σ		8.576	3.626	17.350	10.040	46.090	3.857	5.217	2.730
%RSD		1.567	1.598	3.686	0.962	4.074	0.740	1.016	1.127
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	264.700	478.700	476.300	35.940	9.140	12.030	0.000	866.500
2	19:19:04	268.700	488.100	486.200	35.830	8.883	8.362	0.000	870.300
3	19:19:12	267.200	482.800	479.400	36.270	8.953	11.800	0.000	864.900
X		266.900	483.200	480.700	36.010	8.992	10.730	0.000	867.300
σ		2.013	4.684	5.042	0.227	0.133	2.055	0.000	2.785
%RSD		0.755	0.969	1.049	0.631	1.473	19.150	0.000	0.321
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	64.179%	1113.000	1164.000	43.696%	53.910	54.650	53.320	103.700
2	19:19:04	64.536%	1120.000	1165.000	43.764%	55.600	54.430	55.020	109.000
3	19:19:12	65.624%	1121.000	1174.000	44.226%	54.940	54.160	56.850	107.300
X		64.779%	1118.000	1168.000	43.895%	54.820	54.420	55.070	106.700
σ		0.753%	4.748	5.690	0.288%	0.853	0.245	1.764	2.736
%RSD		1.162	0.425	0.487	0.657	1.556	0.450	3.204	2.565
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:56	47.658%	2040.000	542.500	542.000	1957.000	1968.000	65.338%	65.497%
2	19:19:04	47.315%	2073.000	553.800	552.200	1979.000	1993.000	65.498%	65.519%
3	19:19:12	48.914%	2031.000	540.400	547.600	1961.000	1988.000	65.924%	67.394%
X		47.962%	2048.000	545.600	547.300	1966.000	1983.000	65.587%	66.137%
σ		0.842%	21.940	7.215	5.106	11.480	13.000	0.303%	1.089%
%RSD		1.755	1.071	1.322	0.933	0.584	0.656	0.462	1.647
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:18:56	54.380	50.330	20.960	22.810	22.140	56.127%		
2	19:19:04	53.910	50.370	21.030	22.010	21.690	57.534%		
3	19:19:12	54.390	51.230	20.850	23.660	22.240	57.523%		
X		54.230	50.640	20.950	22.830	22.020	57.061%		
σ		0.272	0.506	0.089	0.821	0.294	0.809%		
%RSD		0.502	0.999	0.424	3.596	1.335	1.418		

CCV 1369903 11/5/2014 7:24:56 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	67.226%	86.690	104.300	112.300	0.000	52130.000	46190.000	46380.000
2	19:24:10	65.600%	90.740	105.500	108.500	0.000	53550.000	47630.000	47830.000
3	19:24:18	65.865%	95.170	105.100	107.900	0.000	53550.000	47330.000	47930.000
X		66.230%	90.865%	104.958%	109.545%	0.000	106.153%	94.098%	94.760%
σ		0.872%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.317	4.669	0.555	2.195	0.000	1.545	1.615	1.828
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	485.300	5785.000	0.000	52310.000	50240.000	50110.000	52.162%	98.420
2	19:24:10	500.500	5966.000	0.000	53830.000	52090.000	52130.000	52.051%	106.100
3	19:24:18	507.200	6092.000	0.000	54900.000	53160.000	53190.000	51.898%	107.400
X		99.531%	118.952%	0.000	107.361%	103.662%	103.615%	52.037%	103.967%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.132%	n/a
%RSD		2.250	2.590	0.000	2.416	2.856	3.017	0.255	4.657
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	102.900	102.700	487.800	25610.000	24480.000	99.820	99.210	100.300
2	19:24:10	103.400	104.100	507.900	26110.000	24900.000	101.800	103.900	101.300
3	19:24:18	103.200	104.600	521.900	25990.000	24810.000	101.200	99.190	99.950
X		103.160%	103.819%	101.172%	103.615%	98.925%	100.956%	100.767%	100.526%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.239	0.972	3.385	0.998	0.879	1.016	2.687	0.699
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	103.100	100.200	98.850	91.740	94.300	95.350	0.000	88.280
2	19:24:10	102.900	102.400	102.400	94.370	93.340	97.180	0.000	88.030
3	19:24:18	104.200	101.300	100.800	92.450	89.660	93.310	0.000	87.210
X		103.389%	101.280%	100.685%	92.851%	92.433%	95.282%	0.000	87.840%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.674	1.082	1.763	1.466	2.652	2.030	0.000	0.635
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	63.699%	102.500	108.300	45.082%	105.700	108.200	107.900	108.500
2	19:24:10	64.161%	105.000	111.900	45.369%	106.300	107.400	106.200	110.400
3	19:24:18	64.845%	106.300	109.600	45.374%	105.700	108.200	110.100	113.000
X		64.235%	104.596%	109.946%	45.275%	105.909%	107.900%	108.084%	110.659%
σ		0.577%	n/a	n/a	0.167%	n/a	n/a	n/a	n/a
%RSD		0.898	1.872	1.655	0.369	0.342	0.420	1.833	2.048
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:24:02	46.338%	108.800	104.500	104.200	100.900	102.300	64.484%	64.877%
2	19:24:10	47.000%	110.300	107.300	107.800	100.700	104.100	65.107%	64.867%
3	19:24:18	46.968%	108.700	107.500	108.800	102.700	105.600	65.003%	65.879%
X		46.769%	109.258%	106.440%	106.900%	101.414%	103.959%	64.865%	65.208%
σ		0.373%	n/a	n/a	n/a	n/a	n/a	0.334%	0.581%
%RSD		0.798	0.821	1.597	2.270	1.059	1.592	0.515	0.891
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:24:02	106.600	102.000	104.600	107.000	105.900	60.297%		
2	19:24:10	108.800	103.700	109.000	111.600	109.000	59.792%		
3	19:24:18	108.300	103.700	105.900	109.400	107.800	59.962%		
X		107.866%	103.153%	106.490%	109.339%	107.558%	60.017%		
σ		n/a	n/a	n/a	n/a	n/a	0.257%		
%RSD		1.065	0.988	2.101	2.060	1.458	0.428		

CCB4 11/5/2014 7:34:00 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	86.748%	-0.358	10.180	10.090	0.000	-88.320	20.910	8.202
2	19:33:16	87.203%	-0.263	1.247	1.452	0.000	-75.220	29.040	15.670
3	19:33:24	88.076%	-0.278	-5.863	-4.280	0.000	-78.660	22.280	11.670
X		87.342%	-0.300	1.853	2.422	0.000	-80.730	24.080	11.850
σ		0.675%	0.051	8.036	7.235	0.000	6.792	4.352	3.739
%RSD		0.773	17.030	433.700	298.800	0.000	8.413	18.080	31.560
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	1.368	69.950	0.000	-36.480	-0.002	11.270	80.212%	0.073
2	19:33:16	2.750	36.870	0.000	-33.210	8.043	11.380	78.374%	0.027
3	19:33:24	3.359	18.320	0.000	-37.750	5.181	14.260	77.195%	0.157
X		2.492	41.710	0.000	-35.810	4.408	12.300	78.594%	0.086
σ		1.020	26.150	0.000	2.343	4.078	1.695	1.520%	0.066
%RSD		40.930	62.700	0.000	6.543	92.530	13.780	1.934	77.320
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	0.026	0.133	0.126	16.890	1.061	-0.050	-0.056	1.354
2	19:33:16	0.232	0.087	0.162	18.770	-0.133	-0.006	0.183	1.288
3	19:33:24	0.084	0.111	0.138	18.590	0.575	-0.035	-0.006	1.047
X		0.114	0.111	0.142	18.090	0.501	-0.030	0.040	1.230
σ		0.107	0.023	0.018	1.036	0.601	0.022	0.126	0.162
%RSD		93.510	20.850	12.730	5.730	119.800	73.910	311.400	13.150
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	1.113	0.080	-0.017	0.047	-0.056	3.841	0.000	0.184
2	19:33:16	1.185	0.230	0.213	-0.016	-0.011	-3.175	0.000	0.287
3	19:33:24	1.327	0.017	0.256	0.055	0.058	1.423	0.000	0.289
X		1.209	0.109	0.150	0.029	-0.003	0.697	0.000	0.254
σ		0.109	0.109	0.147	0.039	0.057	3.564	0.000	0.060
%RSD		8.998	100.100	97.530	135.100	1816.000	511.600	0.000	23.620
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	74.287%	0.424	0.503	62.765%	-0.139	-0.024	0.013	0.005
2	19:33:16	76.768%	0.503	0.568	63.622%	-0.118	-0.067	0.055	0.023
3	19:33:24	77.816%	0.536	0.484	64.231%	-0.131	-0.042	0.112	0.028
X		76.291%	0.488	0.519	63.539%	-0.129	-0.044	0.060	0.019
σ		1.812%	0.058	0.044	0.736%	0.011	0.022	0.050	0.012
%RSD		2.376	11.790	8.517	1.159	8.367	49.350	82.590	63.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:33:08	63.933%	-0.413	-0.126	-0.954	0.192	0.322	77.918%	78.680%
2	19:33:16	64.800%	-0.359	-0.153	-0.954	0.068	0.283	78.955%	79.135%
3	19:33:24	65.162%	-0.459	-0.198	-0.965	0.348	0.304	79.746%	80.628%
X		64.632%	-0.410	-0.159	-0.958	0.202	0.303	78.873%	79.481%
σ		0.631%	0.050	0.036	0.006	0.140	0.019	0.917%	1.019%
%RSD		0.977	12.270	22.870	0.663	69.350	6.332	1.162	1.282
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:33:08	0.094	0.092	0.138	0.147	0.154	74.794%		
2	19:33:16	0.107	0.075	0.131	0.184	0.169	74.974%		
3	19:33:24	0.092	0.077	0.180	0.172	0.179	74.203%		
X		0.098	0.081	0.149	0.168	0.168	74.657%		
σ		0.008	0.009	0.027	0.019	0.013	0.403%		
%RSD		8.173	11.400	17.940	11.530	7.624	0.540		

480-70468-C-1-A

11/5/2014 7:39:06 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	53.629%	-0.189	38.010	44.610	0.000	113400.000	2063.000	2103.000
2	19:38:21	51.043%	-0.271	32.860	33.260	0.000	119800.000	2197.000	2185.000
3	19:38:28	47.007%	-0.254	25.700	30.420	0.000	125700.000	2282.000	2294.000
X		50.560%	-0.238	32.190	36.100	0.000	119600.000	2181.000	2194.000
σ		3.337%	0.043	6.183	7.511	0.000	6160.000	110.100	95.520
%RSD		6.601	18.190	19.210	20.810	0.000	5.150	5.049	4.354
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	26.010	13190.000	0.000	2236.000	3454.000	3360.000	44.610%	3.023
2	19:38:21	27.720	13770.000	0.000	2293.000	3711.000	3572.000	43.786%	3.488
3	19:38:28	31.510	14170.000	0.000	2271.000	3819.000	3653.000	43.594%	3.368
X		28.410	13710.000	0.000	2267.000	3661.000	3528.000	43.997%	3.293
σ		2.816	492.500	0.000	28.680	187.200	151.100	0.540%	0.242
%RSD		9.910	3.593	0.000	1.265	5.113	4.282	1.226	7.341
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	32.020	15.220	29.630	67.780	75.560	0.083	1.547	7.232
2	19:38:21	33.380	16.320	30.100	70.520	78.750	0.120	1.250	7.942
3	19:38:28	33.610	16.690	31.370	70.920	75.730	0.180	1.509	8.515
X		33.000	16.080	30.360	69.740	76.680	0.128	1.435	7.896
σ		0.858	0.764	0.904	1.710	1.792	0.049	0.161	0.643
%RSD		2.600	4.753	2.978	2.452	2.337	38.200	11.240	8.142
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	6.456	2.613	2.264	0.739	0.013	4.064	0.000	10.870
2	19:38:21	7.649	3.367	2.215	0.776	0.073	2.503	0.000	10.800
3	19:38:28	8.075	3.244	2.356	0.759	0.071	3.138	0.000	11.070
X		7.393	3.074	2.278	0.758	0.052	3.235	0.000	10.910
σ		0.839	0.405	0.072	0.019	0.034	0.785	0.000	0.139
%RSD		11.350	13.160	3.141	2.459	64.980	24.270	0.000	1.277
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	67.442%	6.690	7.147	44.758%	-0.144	-0.103	0.038	0.042
2	19:38:21	68.532%	6.767	6.928	45.719%	-0.166	-0.081	-0.001	0.017
3	19:38:28	69.643%	6.461	6.717	46.058%	-0.149	-0.099	-0.002	0.055
X		68.539%	6.639	6.931	45.512%	-0.153	-0.094	0.012	0.038
σ		1.101%	0.159	0.215	0.674%	0.012	0.012	0.023	0.019
%RSD		1.606	2.400	3.099	1.482	7.724	12.220	196.600	51.510
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:38:13	47.933%	1.034	-0.012	-0.886	7.719	6.497	66.089%	66.430%
2	19:38:21	48.753%	0.844	-0.084	-0.854	7.024	7.126	66.625%	67.687%
3	19:38:28	49.422%	0.383	-0.145	-1.008	6.736	7.109	68.616%	67.896%
X		48.703%	0.754	-0.080	-0.916	7.159	6.911	67.110%	67.338%
σ		0.746%	0.334	0.067	0.081	0.505	0.359	1.332%	0.793%
%RSD		1.531	44.370	83.130	8.881	7.058	5.191	1.984	1.177
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:38:13	0.089	0.071	0.042	0.041	0.036	60.551%		
2	19:38:21	0.078	0.053	0.014	0.036	0.034	61.412%		
3	19:38:28	0.067	0.052	0.036	0.022	0.032	63.295%		
X		0.078	0.059	0.031	0.033	0.034	61.753%		
σ		0.011	0.011	0.015	0.010	0.002	1.403%		
%RSD		14.240	18.460	47.420	29.100	5.672	2.273		



480-70468-C-1-A SD@5

11/5/2014 7:44:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	58.949%	-0.333	20.200	25.390	0.000	20380.000	397.200	392.100
2	19:43:25	56.733%	-0.258	11.710	13.690	0.000	21370.000	399.900	422.300
3	19:43:32	54.966%	-0.323	3.894	6.069	0.000	22070.000	421.400	409.300
X		56.883%	-0.305	11.930	15.050	0.000	21270.000	406.200	407.900
σ		1.996%	0.041	8.156	9.729	0.000	850.800	13.240	15.140
%RSD		3.508	13.420	68.340	64.650	0.000	3.999	3.260	3.712
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	12.120	2656.000	0.000	448.500	564.900	604.000	52.221%	0.406
2	19:43:25	15.190	2772.000	0.000	483.900	665.300	640.400	49.923%	0.192
3	19:43:32	15.690	2820.000	0.000	506.500	641.600	679.900	48.799%	0.362
X		14.340	2749.000	0.000	479.600	623.900	641.400	50.315%	0.320
σ		1.934	84.650	0.000	29.200	52.430	37.940	1.744%	0.113
%RSD		13.490	3.079	0.000	6.088	8.404	5.915	3.467	35.210
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	11.160	3.885	5.536	20.900	7.644	0.004	0.603	4.064
2	19:43:25	12.800	4.281	5.966	21.930	15.490	0.044	0.716	4.591
3	19:43:32	12.670	4.405	5.955	21.760	22.890	-0.012	0.611	4.972
X		12.210	4.190	5.819	21.530	15.340	0.012	0.643	4.542
σ		0.908	0.272	0.245	0.551	7.623	0.029	0.063	0.456
%RSD		7.434	6.479	4.217	2.561	49.700	247.800	9.801	10.040
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	4.405	1.161	1.384	0.223	0.032	1.284	0.000	2.328
2	19:43:25	4.651	1.322	1.391	0.196	0.004	3.621	0.000	2.422
3	19:43:32	4.141	0.922	1.205	0.227	-0.142	-6.890	0.000	2.245
X		4.399	1.135	1.326	0.215	-0.035	-0.662	0.000	2.332
σ		0.255	0.201	0.105	0.017	0.094	5.519	0.000	0.089
%RSD		5.799	17.720	7.935	7.775	265.900	834.300	0.000	3.803
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	67.199%	1.010	1.270	48.549%	-0.168	-0.092	-0.002	-0.023
2	19:43:25	68.006%	1.125	1.228	48.772%	-0.143	-0.104	0.035	-0.016
3	19:43:32	68.762%	1.061	1.345	48.376%	-0.135	-0.087	0.035	0.007
X		67.989%	1.065	1.281	48.565%	-0.149	-0.094	0.023	-0.010
σ		0.782%	0.058	0.059	0.199%	0.017	0.009	0.021	0.016
%RSD		1.150	5.399	4.630	0.409	11.560	9.337	92.580	152.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:43:17	50.412%	-0.538	-0.376	-1.216	1.317	1.482	67.458%	68.258%
2	19:43:25	50.784%	-0.603	-0.373	-1.249	1.475	1.368	68.764%	68.943%
3	19:43:32	50.493%	-0.530	-0.364	-1.227	1.407	1.360	68.608%	68.016%
X		50.563%	-0.557	-0.371	-1.231	1.400	1.403	68.277%	68.405%
σ		0.196%	0.040	0.006	0.017	0.079	0.069	0.713%	0.481%
%RSD		0.387	7.232	1.701	1.355	5.630	4.898	1.044	0.703
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:43:17	0.037	0.031	0.060	0.068	0.062	66.174%		
2	19:43:25	0.052	0.019	0.077	0.072	0.068	66.308%		
3	19:43:32	0.040	0.030	0.041	0.040	0.054	66.845%		
X		0.043	0.027	0.059	0.060	0.061	66.442%		
σ		0.008	0.007	0.018	0.017	0.007	0.355%		
%RSD		17.910	24.730	30.710	28.880	11.160	0.534		

480-70468-C-1-B MS

11/5/2014 7:49:14 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	53.800%	46.590	872.000	978.400	0.000	163600.000	51120.000	51430.000
2	19:48:29	52.643%	47.710	860.300	983.500	0.000	170200.000	53890.000	53420.000
3	19:48:37	51.285%	48.700	920.600	1022.000	0.000	173400.000	54260.000	54400.000
X		52.576%	47.670	884.300	994.600	0.000	169100.000	53090.000	53090.000
σ		1.259%	1.055	31.960	23.750	0.000	5011.000	1714.000	1513.000
%RSD		2.394	2.214	3.614	2.388	0.000	2.964	3.228	2.850
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	2179.000	22560.000	0.000	49270.000	54860.000	55240.000	49.506%	1042.000
2	19:48:29	2283.000	23030.000	0.000	50020.000	56420.000	56840.000	48.814%	1077.000
3	19:48:37	2305.000	23710.000	0.000	51020.000	58930.000	58580.000	48.447%	1098.000
X		2256.000	23100.000	0.000	50100.000	56740.000	56890.000	48.922%	1073.000
σ		67.600	580.000	0.000	876.800	2052.000	1674.000	0.538%	28.110
%RSD		2.997	2.511	0.000	1.750	3.617	2.943	1.099	2.621
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	556.400	231.100	504.700	1100.000	1202.000	525.800	515.400	239.500
2	19:48:29	575.000	241.800	517.400	1149.000	1245.000	536.600	527.400	248.400
3	19:48:37	583.300	239.300	533.900	1143.000	1254.000	544.100	527.900	251.300
X		571.600	237.400	518.700	1131.000	1234.000	535.500	523.600	246.400
σ		13.800	5.623	14.670	27.010	27.640	9.191	7.033	6.189
%RSD		2.415	2.369	2.828	2.389	2.240	1.716	1.343	2.512
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	267.900	485.700	476.200	36.110	8.094	8.502	0.000	849.600
2	19:48:29	270.300	492.100	485.300	36.900	9.129	13.600	0.000	849.500
3	19:48:37	278.500	485.900	480.700	35.610	8.919	10.250	0.000	839.100
X		272.200	487.900	480.700	36.210	8.714	10.790	0.000	846.100
σ		5.594	3.605	4.572	0.652	0.547	2.592	0.000	6.039
%RSD		2.055	0.739	0.951	1.802	6.278	24.040	0.000	0.714
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	67.289%	1101.000	1148.000	44.734%	54.120	54.380	58.360	113.000
2	19:48:29	68.693%	1102.000	1166.000	44.649%	54.460	54.820	55.950	110.400
3	19:48:37	69.317%	1099.000	1153.000	45.082%	54.700	54.300	55.460	110.500
X		68.433%	1101.000	1156.000	44.822%	54.430	54.500	56.590	111.300
σ		1.039%	1.941	9.232	0.229%	0.293	0.277	1.555	1.479
%RSD		1.518	0.176	0.799	0.511	0.538	0.508	2.748	1.329
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:22	45.628%	2210.000	577.000	574.200	2037.000	2036.000	66.785%	67.035%
2	19:48:29	47.395%	2167.000	566.300	567.100	2018.000	2035.000	67.014%	67.317%
3	19:48:37	46.916%	2180.000	573.900	573.900	2023.000	2057.000	66.639%	68.069%
X		46.646%	2186.000	572.400	571.700	2026.000	2042.000	66.813%	67.474%
σ		0.914%	22.290	5.515	3.990	9.731	12.400	0.189%	0.534%
%RSD		1.959	1.020	0.964	0.698	0.480	0.607	0.283	0.792
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:48:22	52.690	49.130	21.360	21.800	21.510	58.397%		
2	19:48:29	53.440	50.090	20.820	22.480	21.820	58.569%		
3	19:48:37	53.300	50.160	20.600	21.740	21.470	59.498%		
X		53.140	49.790	20.930	22.010	21.600	58.822%		
σ		0.400	0.577	0.393	0.408	0.192	0.592%		
%RSD		0.752	1.159	1.877	1.855	0.889	1.007		

480-70468-C-1-C MSD

11/5/2014 7:54:19 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	53.003%	45.810	908.000	1003.000	0.000	167900.000	52290.000	52730.000
2	19:53:35	49.856%	51.130	948.000	1068.000	0.000	177900.000	55240.000	55910.000
3	19:53:43	48.731%	52.360	955.800	1089.000	0.000	180200.000	55280.000	55310.000
X		50.530%	49.770	937.300	1054.000	0.000	175400.000	54270.000	54650.000
σ		2.215%	3.480	25.620	44.910	0.000	6533.000	1713.000	1690.000
%RSD		4.383	6.993	2.734	4.263	0.000	3.725	3.156	3.093
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	2264.000	23030.000	0.000	49230.000	55530.000	55560.000	50.583%	1035.000
2	19:53:35	2357.000	24290.000	0.000	50690.000	57930.000	57920.000	49.656%	1088.000
3	19:53:43	2376.000	24930.000	0.000	51350.000	58390.000	58770.000	49.458%	1100.000
X		2332.000	24080.000	0.000	50420.000	57280.000	57420.000	49.899%	1074.000
σ		59.710	962.400	0.000	1085.000	1538.000	1662.000	0.600%	34.410
%RSD		2.560	3.996	0.000	2.153	2.685	2.895	1.203	3.203
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	565.700	235.400	505.500	1123.000	1241.000	533.900	532.300	250.600
2	19:53:35	586.500	243.800	529.000	1145.000	1255.000	541.700	534.100	252.600
3	19:53:43	582.400	241.300	533.100	1130.000	1239.000	541.500	533.000	253.300
X		578.200	240.200	522.600	1133.000	1245.000	539.000	533.100	252.200
σ		11.000	4.317	14.920	11.320	9.098	4.419	0.913	1.384
%RSD		1.902	1.797	2.855	1.000	0.731	0.820	0.171	0.549
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	277.100	497.900	490.600	36.770	9.488	12.610	0.000	874.300
2	19:53:35	274.800	496.800	501.600	36.480	9.954	11.550	0.000	852.500
3	19:53:43	276.300	489.900	482.500	36.670	9.274	7.707	0.000	848.000
X		276.100	494.900	491.600	36.640	9.572	10.620	0.000	858.300
σ		1.141	4.302	9.590	0.148	0.347	2.579	0.000	14.070
%RSD		0.413	0.869	1.951	0.403	3.629	24.280	0.000	1.639
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	67.815%	1122.000	1173.000	45.014%	55.260	54.950	59.920	114.600
2	19:53:35	69.568%	1115.000	1172.000	45.448%	56.150	56.480	57.860	115.700
3	19:53:43	69.536%	1112.000	1175.000	45.330%	55.360	56.880	58.260	112.300
X		68.973%	1116.000	1173.000	45.264%	55.590	56.100	58.680	114.200
σ		1.003%	4.876	1.389	0.224%	0.486	1.020	1.092	1.740
%RSD		1.455	0.437	0.118	0.496	0.874	1.818	1.861	1.524
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:53:28	46.952%	2191.000	578.900	575.900	2035.000	2057.000	66.373%	66.577%
2	19:53:35	46.005%	2255.000	596.400	582.900	2073.000	2086.000	67.474%	67.835%
3	19:53:43	46.527%	2230.000	586.200	583.600	2057.000	2078.000	67.274%	67.279%
X		46.495%	2225.000	587.200	580.800	2055.000	2074.000	67.040%	67.230%
σ		0.474%	32.290	8.764	4.280	19.090	14.930	0.587%	0.630%
%RSD		1.020	1.451	1.493	0.737	0.929	0.720	0.875	0.938
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:53:28	53.350	50.900	21.290	22.680	21.870	58.240%		
2	19:53:35	54.460	51.270	21.730	22.660	22.080	58.144%		
3	19:53:43	54.650	51.460	21.540	22.780	21.910	57.889%		
X		54.150	51.210	21.520	22.710	21.950	58.091%		
σ		0.702	0.286	0.219	0.068	0.111	0.182%		
%RSD		1.296	0.558	1.015	0.301	0.503	0.312		

480-70468-C-2-A

11/5/2014 7:59:22 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	49.849%	-0.211	55.430	64.410	0.000	118800.000	2195.000	2171.000
2	19:58:38	47.345%	-0.101	37.980	50.300	0.000	125400.000	2278.000	2302.000
3	19:58:46	45.778%	-0.187	37.180	44.370	0.000	127800.000	2347.000	2329.000
X		47.657%	-0.166	43.530	53.030	0.000	124000.000	2273.000	2268.000
σ		2.054%	0.058	10.310	10.290	0.000	4651.000	75.900	84.880
%RSD		4.310	34.640	23.690	19.410	0.000	3.750	3.339	3.743
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	29.150	13500.000	0.000	2167.000	3355.000	3329.000	47.553%	3.244
2	19:58:38	31.740	14160.000	0.000	2243.000	3644.000	3508.000	46.341%	2.905
3	19:58:46	32.380	14640.000	0.000	2257.000	3598.000	3616.000	46.184%	3.001
X		31.090	14100.000	0.000	2222.000	3532.000	3484.000	46.693%	3.050
σ		1.711	570.000	0.000	48.030	155.400	145.000	0.749%	0.175
%RSD		5.502	4.042	0.000	2.161	4.399	4.163	1.605	5.722
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	38.810	16.830	29.260	64.690	64.940	0.406	1.843	8.536
2	19:58:38	39.610	17.770	31.280	67.100	71.390	0.393	1.745	9.531
3	19:58:46	42.270	18.010	31.880	66.720	62.640	0.439	1.998	9.192
X		40.230	17.540	30.810	66.170	66.320	0.413	1.862	9.086
σ		1.807	0.627	1.368	1.292	4.535	0.024	0.127	0.506
%RSD		4.491	3.573	4.441	1.953	6.837	5.741	6.832	5.568
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	9.121	4.202	4.725	0.728	0.004	-0.029	0.000	10.730
2	19:58:38	9.273	3.963	5.121	0.759	-0.053	3.244	0.000	11.160
3	19:58:46	8.460	4.405	4.719	0.736	-0.027	5.533	0.000	10.830
X		8.952	4.190	4.855	0.741	-0.025	2.916	0.000	10.910
σ		0.432	0.222	0.231	0.016	0.029	2.796	0.000	0.225
%RSD		4.828	5.285	4.751	2.155	112.900	95.880	0.000	2.066
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	69.670%	9.145	9.576	46.379%	-0.115	-0.069	0.018	0.126
2	19:58:38	69.454%	9.148	9.374	46.001%	-0.154	-0.103	0.152	0.103
3	19:58:46	71.779%	8.321	8.579	46.887%	-0.125	-0.091	0.017	0.054
X		70.301%	8.871	9.176	46.422%	-0.131	-0.088	0.062	0.094
σ		1.284%	0.477	0.527	0.444%	0.020	0.018	0.078	0.037
%RSD		1.827	5.374	5.744	0.957	15.230	20.100	124.800	39.120
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:58:30	48.962%	3.326	0.005	-0.834	7.430	8.537	66.857%	67.816%
2	19:58:38	48.841%	2.229	-0.016	-0.795	8.212	7.129	67.354%	68.124%
3	19:58:46	50.005%	2.146	-0.060	-0.849	8.418	8.029	67.909%	68.592%
X		49.270%	2.567	-0.024	-0.826	8.020	7.898	67.373%	68.177%
σ		0.640%	0.659	0.033	0.028	0.521	0.713	0.526%	0.390%
%RSD		1.299	25.660	139.000	3.387	6.500	9.030	0.781	0.573
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:58:30	0.234	0.264	0.038	0.050	0.053	60.693%		
2	19:58:38	0.280	0.252	0.041	0.044	0.036	61.919%		
3	19:58:46	0.252	0.249	0.052	0.056	0.044	62.555%		
X		0.255	0.255	0.044	0.050	0.044	61.723%		
σ		0.023	0.008	0.007	0.006	0.009	0.946%		
%RSD		8.964	3.205	16.600	11.980	19.480	1.533		

480-70468-C-3-A

11/5/2014 8:04:25 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	48.071%	-0.196	37.390	44.770	0.000	62870.000	874.600	877.900
2	20:03:41	47.126%	-0.233	32.880	32.020	0.000	64950.000	947.400	913.500
3	20:03:48	47.436%	0.020	22.050	24.740	0.000	64840.000	961.200	924.200
X		47.544%	-0.136	30.770	33.840	0.000	64220.000	927.800	905.200
σ		0.482%	0.136	7.881	10.140	0.000	1166.000	46.510	24.250
%RSD		1.013	99.990	25.610	29.950	0.000	1.816	5.013	2.679
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	26.470	12580.000	0.000	6639.000	3812.000	3735.000	47.305%	2.091
2	20:03:41	29.290	12950.000	0.000	6861.000	4069.000	3943.000	46.111%	2.706
3	20:03:48	29.730	13340.000	0.000	7090.000	4156.000	4082.000	45.489%	1.658
X		28.500	12960.000	0.000	6863.000	4012.000	3920.000	46.302%	2.151
σ		1.768	376.500	0.000	225.500	178.600	174.500	0.923%	0.527
%RSD		6.205	2.906	0.000	3.285	4.452	4.452	1.993	24.480
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	43.120	18.030	8.360	14.600	18.240	0.227	4.560	9.783
2	20:03:41	45.730	19.150	8.700	15.360	27.710	0.239	4.286	9.886
3	20:03:48	45.340	19.710	9.142	16.460	26.790	0.238	5.022	10.070
X		44.730	18.970	8.734	15.470	24.250	0.234	4.623	9.914
σ		1.407	0.858	0.392	0.933	5.220	0.007	0.372	0.147
%RSD		3.145	4.524	4.490	6.033	21.530	2.874	8.045	1.480
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	8.747	128.000	128.200	0.794	0.120	1.891	0.000	11.660
2	20:03:41	9.534	131.500	128.500	0.711	0.064	2.487	0.000	12.370
3	20:03:48	9.597	128.600	129.300	0.797	0.152	2.879	0.000	12.680
X		9.293	129.300	128.700	0.767	0.112	2.419	0.000	12.240
σ		0.473	1.872	0.582	0.049	0.045	0.498	0.000	0.522
%RSD		5.093	1.448	0.453	6.338	39.760	20.580	0.000	4.265
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	70.410%	0.876	0.927	47.278%	-0.146	-0.060	0.018	0.071
2	20:03:41	70.150%	0.787	0.954	47.657%	-0.104	-0.065	0.036	0.032
3	20:03:48	70.732%	0.736	0.874	47.438%	-0.146	-0.065	0.017	0.046
X		70.430%	0.799	0.918	47.457%	-0.132	-0.064	0.024	0.050
σ		0.292%	0.071	0.041	0.190%	0.024	0.003	0.011	0.020
%RSD		0.414	8.866	4.441	0.401	18.510	4.307	46.060	39.490
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:03:33	48.861%	0.381	-0.215	-0.966	2.603	2.064	68.581%	67.464%
2	20:03:41	48.636%	0.581	-0.187	-1.014	3.106	2.675	67.848%	68.083%
3	20:03:48	49.836%	0.256	-0.177	-0.945	2.224	2.533	68.289%	68.322%
X		49.111%	0.406	-0.193	-0.975	2.644	2.424	68.239%	67.956%
σ		0.638%	0.164	0.020	0.035	0.443	0.320	0.369%	0.443%
%RSD		1.299	40.340	10.110	3.626	16.740	13.210	0.541	0.651
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:03:33	0.129	0.091	0.030	0.045	0.048	61.012%		
2	20:03:41	0.093	0.098	0.053	0.057	0.045	61.794%		
3	20:03:48	0.134	0.107	0.065	0.045	0.050	61.453%		
X		0.119	0.099	0.049	0.049	0.048	61.419%		
σ		0.022	0.008	0.018	0.007	0.003	0.392%		
%RSD		18.840	8.152	35.640	14.380	5.251	0.638		

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11/5/2014 8:13:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	81.394%	-0.329	8.473	12.550	0.000	-32.070	-0.065	-3.238
2	20:12:48	80.108%	-0.391	3.281	2.428	0.000	-27.450	2.833	-3.619
3	20:12:56	80.443%	-0.346	-2.700	-2.749	0.000	-27.770	4.672	-3.947
X		80.648%	-0.355	3.018	4.076	0.000	-29.100	2.480	-3.601
σ		0.667%	0.032	5.591	7.781	0.000	2.579	2.388	0.355
%RSD		0.827	8.921	185.200	190.900	0.000	8.862	96.280	9.850
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	4.361	97.310	0.000	6.220	-4.961	8.278	65.299%	0.057
2	20:12:48	5.814	58.080	0.000	12.330	-1.504	4.277	64.264%	-0.001
3	20:12:56	5.553	32.620	0.000	17.070	-0.877	6.899	63.246%	0.126
X		5.243	62.670	0.000	11.870	-2.448	6.485	64.269%	0.060
σ		0.775	32.590	0.000	5.439	2.199	2.032	1.027%	0.064
%RSD		14.770	52.000	0.000	45.820	89.850	31.340	1.597	105.300
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	0.576	0.240	0.051	1.735	-12.640	-0.039	0.537	2.434
2	20:12:48	0.772	0.266	0.011	2.313	-8.292	-0.057	0.544	2.305
3	20:12:56	0.764	0.245	0.009	1.477	-15.670	-0.095	0.246	2.260
X		0.704	0.250	0.024	1.842	-12.200	-0.064	0.442	2.333
σ		0.111	0.014	0.023	0.428	3.707	0.028	0.170	0.090
%RSD		15.780	5.541	97.730	23.240	30.380	44.260	38.430	3.871
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	2.276	1.848	1.830	-0.046	-0.150	0.452	0.000	0.052
2	20:12:48	2.046	1.152	2.145	-0.029	-0.047	-7.061	0.000	0.088
3	20:12:56	2.276	1.558	1.726	-0.032	-0.099	-3.999	0.000	0.111
X		2.199	1.520	1.900	-0.036	-0.099	-3.536	0.000	0.083
σ		0.133	0.350	0.218	0.009	0.051	3.778	0.000	0.030
%RSD		6.034	23.020	11.480	25.620	51.800	106.800	0.000	35.860
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	73.342%	0.216	0.068	49.130%	-0.147	-0.087	-0.002	0.000
2	20:12:48	74.202%	0.084	0.108	48.790%	-0.139	-0.092	-0.002	-0.008
3	20:12:56	74.843%	0.059	0.090	49.256%	-0.164	-0.104	0.054	-0.015
X		74.129%	0.120	0.089	49.059%	-0.150	-0.095	0.017	-0.008
σ		0.753%	0.084	0.020	0.241%	0.013	0.009	0.032	0.008
%RSD		1.016	70.570	22.380	0.492	8.435	9.337	189.500	101.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:40	49.669%	-0.584	-0.374	-1.241	0.145	0.232	65.565%	65.883%
2	20:12:48	50.461%	-0.538	-0.401	-1.216	0.142	0.270	66.591%	66.929%
3	20:12:56	50.402%	-0.635	-0.359	-1.253	0.118	0.186	66.387%	66.762%
X		50.178%	-0.585	-0.378	-1.237	0.135	0.229	66.181%	66.525%
σ		0.441%	0.049	0.021	0.019	0.015	0.042	0.543%	0.562%
%RSD		0.879	8.287	5.619	1.548	11.260	18.300	0.821	0.845
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:12:40	0.023	0.039	0.002	0.025	0.010	66.343%		
2	20:12:48	0.017	0.029	0.013	0.005	0.010	66.189%		
3	20:12:56	0.038	0.033	0.016	0.017	0.014	65.687%		
X		0.026	0.033	0.010	0.016	0.011	66.073%		
σ		0.011	0.005	0.008	0.010	0.002	0.343%		
%RSD		41.510	14.500	74.640	62.590	19.100	0.519		

LCS 180-123380/2-A

11/5/2014 8:18:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	55.853%	49.910	988.400	1069.000	0.000	60570.000	48530.000	48420.000
2	20:17:55	54.896%	50.100	1013.000	1076.000	0.000	62330.000	49430.000	49440.000
3	20:18:03	52.664%	53.870	1020.000	1108.000	0.000	64630.000	50680.000	50730.000
X		54.471%	51.290	1007.000	1084.000	0.000	62510.000	49550.000	49530.000
σ		1.636%	2.232	16.680	21.020	0.000	2038.000	1080.000	1159.000
%RSD		3.004	4.351	1.656	1.939	0.000	3.260	2.180	2.340
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	2124.000	10220.000	0.000	49780.000	51550.000	51400.000	50.586%	1034.000
2	20:17:55	2194.000	10630.000	0.000	51680.000	53840.000	53790.000	49.976%	1092.000
3	20:18:03	2247.000	10840.000	0.000	51810.000	55010.000	55260.000	49.081%	1104.000
X		2189.000	10560.000	0.000	51090.000	53460.000	53480.000	49.881%	1077.000
σ		61.390	314.900	0.000	1135.000	1758.000	1948.000	0.757%	37.760
%RSD		2.805	2.981	0.000	2.222	3.288	3.642	1.518	3.508
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	543.900	225.200	486.300	1074.000	1211.000	516.900	512.800	243.600
2	20:17:55	549.900	231.300	509.700	1094.000	1167.000	531.100	522.200	245.500
3	20:18:03	559.100	233.700	521.100	1099.000	1182.000	532.200	526.100	248.300
X		551.000	230.000	505.700	1089.000	1187.000	526.700	520.400	245.800
σ		7.695	4.373	17.760	13.660	22.270	8.544	6.874	2.349
%RSD		1.397	1.901	3.512	1.254	1.876	1.622	1.321	0.956
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	262.200	492.200	482.800	35.580	8.674	7.435	0.000	860.100
2	20:17:55	267.300	490.000	497.100	36.810	8.684	5.743	0.000	859.700
3	20:18:03	268.700	499.100	492.800	35.790	8.369	7.081	0.000	860.700
X		266.100	493.800	490.900	36.060	8.575	6.753	0.000	860.200
σ		3.412	4.758	7.324	0.661	0.179	0.892	0.000	0.517
%RSD		1.283	0.964	1.492	1.832	2.088	13.210	0.000	0.060
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	63.629%	1109.000	1171.000	42.469%	55.360	56.840	58.850	113.400
2	20:17:55	65.116%	1105.000	1166.000	43.124%	55.750	57.210	59.550	111.500
3	20:18:03	65.111%	1118.000	1169.000	43.127%	55.580	56.970	58.700	113.800
X		64.619%	1111.000	1169.000	42.907%	55.560	57.010	59.030	112.900
σ		0.857%	6.321	2.263	0.379%	0.196	0.191	0.456	1.237
%RSD		1.326	0.569	0.194	0.883	0.353	0.336	0.773	1.096
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:47	43.985%	2165.000	569.900	565.600	2045.000	2075.000	63.600%	63.182%
2	20:17:55	44.792%	2186.000	569.600	572.300	2069.000	2082.000	63.965%	64.677%
3	20:18:03	44.454%	2187.000	573.800	572.900	2063.000	2094.000	64.181%	65.288%
X		44.410%	2179.000	571.100	570.300	2059.000	2084.000	63.915%	64.383%
σ		0.405%	12.350	2.348	4.049	12.650	9.375	0.294%	1.084%
%RSD		0.912	0.567	0.411	0.710	0.615	0.450	0.460	1.683
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:17:47	55.200	53.070	22.100	23.210	22.690	54.960%		
2	20:17:55	55.790	52.700	22.140	23.130	22.650	55.639%		
3	20:18:03	55.740	52.560	21.930	23.040	22.540	56.477%		
X		55.580	52.780	22.060	23.130	22.630	55.692%		
σ		0.325	0.263	0.113	0.084	0.080	0.760%		
%RSD		0.585	0.499	0.514	0.362	0.352	1.365		

180-37906-C-1-A

11/5/2014 8:23:45 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	50.675%	6.906	37.120	43.100	0.000	1161.000	27530.000	27540.000
2	20:23:00	48.619%	7.331	30.340	35.390	0.000	1246.000	28820.000	28470.000
3	20:23:07	48.037%	7.624	28.380	30.380	0.000	1296.000	29540.000	29310.000
X		49.110%	7.287	31.940	36.290	0.000	1234.000	28630.000	28440.000
σ		1.386%	0.361	4.586	6.405	0.000	68.690	1019.000	888.400
%RSD		2.822	4.957	14.360	17.650	0.000	5.564	3.558	3.124
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	64260.000	5415.000	0.000	7710.000	50520.000	49760.000	46.037%	1944.000
2	20:23:00	67240.000	5585.000	0.000	7991.000	52340.000	52010.000	44.713%	2023.000
3	20:23:07	69010.000	5577.000	0.000	8096.000	54450.000	53480.000	44.089%	2083.000
X		66840.000	5526.000	0.000	7933.000	52430.000	51750.000	44.946%	2017.000
σ		2403.000	95.700	0.000	199.500	1967.000	1872.000	0.995%	69.870
%RSD		3.595	1.732	0.000	2.515	3.751	3.616	2.213	3.464
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	267.700	366.000	2991.000	256900.000	263600.000	171.200	505.200	984.100
2	20:23:00	276.500	375.900	3112.000	262900.000	270300.000	174.500	510.300	1014.000
3	20:23:07	285.600	388.600	3211.000	272700.000	278900.000	180.400	529.800	1039.000
X		276.600	376.800	3105.000	264200.000	270900.000	175.300	515.100	1012.000
σ		8.976	11.340	110.000	7933.000	7641.000	4.650	12.960	27.370
%RSD		3.245	3.008	3.544	3.003	2.820	2.652	2.517	2.704
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	1086.000	3370.000	3407.000	48.830	4.275	4.488	0.000	152.100
2	20:23:00	1103.000	3459.000	3455.000	48.670	5.303	2.989	0.000	148.500
3	20:23:07	1145.000	3537.000	3576.000	50.660	5.018	-0.305	0.000	155.500
X		1112.000	3455.000	3480.000	49.390	4.865	2.391	0.000	152.100
σ		30.160	83.620	86.690	1.104	0.531	2.452	0.000	3.475
%RSD		2.714	2.420	2.491	2.235	10.910	102.600	0.000	2.285
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	0.000	24.830	25.060	40.813%	103.200	101.800	6.816	8.836
2	20:23:00	0.000	25.410	24.170	41.033%	100.300	102.500	6.044	8.367
3	20:23:07	0.000	23.230	24.770	40.643%	101.100	102.000	6.637	9.362
X		0.000	24.490	24.670	40.830%	101.500	102.100	6.499	8.855
σ		0.000	1.131	0.456	0.195%	1.482	0.367	0.404	0.498
%RSD		0.000	4.620	1.850	0.478	1.460	0.359	6.218	5.621
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:22:52	42.546%	98.670	5.009	4.457	700.700	699.500	67.975%	68.361%
2	20:23:00	42.476%	96.860	5.352	4.066	707.100	709.500	68.164%	68.869%
3	20:23:07	42.458%	96.210	5.391	4.456	708.000	713.700	68.497%	69.186%
X		42.493%	97.250	5.251	4.326	705.300	707.600	68.212%	68.805%
σ		0.047%	1.277	0.210	0.226	3.986	7.289	0.265%	0.416%
%RSD		0.110	1.314	4.008	5.213	0.565	1.030	0.388	0.605
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:22:52	1.921	1.622	596.100	565.800	583.800	57.143%		
2	20:23:00	1.841	1.639	604.400	575.600	592.800	56.157%		
3	20:23:07	1.771	1.559	597.600	572.300	591.400	56.199%		
X		1.844	1.607	599.400	571.200	589.300	56.500%		
σ		0.075	0.042	4.445	4.978	4.816	0.558%		
%RSD		4.065	2.627	0.742	0.871	0.817	0.987		



180-37906-C-2-A

11/5/2014 8:28:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	49.089%	13.860	62.060	68.140	0.000	1970.000	56570.000	56490.000
2	20:28:05	47.829%	14.020	51.770	57.380	0.000	2028.000	58110.000	57840.000
3	20:28:13	47.166%	14.500	46.000	53.130	0.000	2079.000	59230.000	58570.000
X		48.028%	14.130	53.280	59.550	0.000	2026.000	57970.000	57630.000
σ		0.977%	0.336	8.136	7.736	0.000	54.670	1332.000	1054.000
%RSD		2.034	2.377	15.270	12.990	0.000	2.699	2.297	1.829
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	121500.000	5989.000	0.000	13290.000	129300.000	134700.000	49.260%	2928.000
2	20:28:05	124700.000	6115.000	0.000	13570.000	135000.000	140800.000	48.004%	3027.000
3	20:28:13	127700.000	6232.000	0.000	13970.000	138600.000	144800.000	47.290%	3113.000
X		124600.000	6112.000	0.000	13610.000	134300.000	140100.000	48.185%	3023.000
σ		3118.000	121.600	0.000	339.900	4702.000	5105.000	0.997%	92.450
%RSD		2.502	1.990	0.000	2.497	3.502	3.645	2.070	3.059
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	486.400	742.700	5167.000	358200.000	366900.000	238.400	566.700	1074.000
2	20:28:05	501.100	758.300	5367.000	363800.000	373000.000	242.800	578.800	1086.000
3	20:28:13	511.900	775.300	5520.000	369000.000	378100.000	245.100	590.500	1089.000
X		499.800	758.700	5351.000	363700.000	372700.000	242.100	578.700	1083.000
σ		12.790	16.330	177.200	5378.000	5605.000	3.394	11.900	7.971
%RSD		2.559	2.152	3.311	1.479	1.504	1.402	2.057	0.736
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	1169.000	8195.000	8286.000	80.360	7.796	9.204	0.000	429.400
2	20:28:05	1177.000	8311.000	8433.000	80.500	8.089	5.867	0.000	433.400
3	20:28:13	1190.000	8395.000	8473.000	81.870	7.281	10.870	0.000	437.600
X		1178.000	8300.000	8397.000	80.910	7.722	8.648	0.000	433.400
σ		10.490	100.000	98.570	0.834	0.409	2.550	0.000	4.083
%RSD		0.890	1.205	1.174	1.031	5.299	29.480	0.000	0.942
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	0.000	55.540	52.510	39.565%	497.400	499.500	22.070	24.540
2	20:28:05	0.000	55.460	52.510	39.890%	498.800	505.700	20.750	25.070
3	20:28:13	0.000	54.530	54.670	39.530%	502.200	502.500	20.870	24.940
X		0.000	55.180	53.230	39.662%	499.500	502.600	21.230	24.850
σ		0.000	0.565	1.251	0.199%	2.464	3.096	0.728	0.275
%RSD		0.000	1.025	2.351	0.501	0.493	0.616	3.430	1.106
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:58	41.521%	138.600	9.340	8.916	1392.000	1396.000	70.659%	72.162%
2	20:28:05	40.768%	141.500	9.379	8.864	1424.000	1407.000	70.712%	71.611%
3	20:28:13	41.477%	141.200	8.819	8.547	1405.000	1411.000	71.451%	72.312%
X		41.255%	140.400	9.179	8.776	1407.000	1404.000	70.941%	72.028%
σ		0.422%	1.628	0.313	0.200	16.270	7.803	0.443%	0.369%
%RSD		1.024	1.159	3.408	2.279	1.156	0.556	0.625	0.513
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:27:58	2.520	2.417	1513.000	1436.000	1500.000	53.940%		
2	20:28:05	2.473	2.309	1512.000	1421.000	1500.000	54.455%		
3	20:28:13	2.472	2.378	1528.000	1446.000	1516.000	54.331%		
X		2.488	2.368	1518.000	1434.000	1505.000	54.242%		
σ		0.027	0.055	8.627	12.680	9.369	0.268%		
%RSD		1.102	2.302	0.569	0.884	0.623	0.495		

CCV 1369903 11/5/2014 8:37:53 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	69.063%	93.260	113.700	122.600	0.000	49480.000	44110.000	44260.000
2	20:37:09	69.183%	97.020	112.600	116.300	0.000	50380.000	45090.000	45420.000
3	20:37:17	68.477%	100.600	113.200	110.800	0.000	50630.000	45470.000	45360.000
X		68.907%	96.960%	113.164%	116.542%	0.000	100.328%	89.782%	90.021%
σ		0.378%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.548	3.788	0.501	5.086	0.000	1.199	1.568	1.452
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	468.000	5808.000	0.000	52680.000	47840.000	48030.000	57.169%	96.270
2	20:37:09	482.600	5936.000	0.000	55020.000	50550.000	50560.000	55.819%	108.100
3	20:37:17	480.000	6055.000	0.000	55360.000	51260.000	51350.000	55.866%	105.200
X		95.380%	118.665%	0.000	108.710%	99.768%	99.968%	56.284%	103.196%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.766%	n/a
%RSD		1.631	2.081	0.000	2.680	3.618	3.471	1.361	5.981
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	93.930	94.670	473.700	24850.000	23190.000	94.870	96.290	97.870
2	20:37:09	95.730	98.080	499.200	25420.000	23720.000	96.950	100.900	100.300
3	20:37:17	96.150	97.120	509.900	25280.000	23460.000	96.650	97.460	99.580
X		95.272%	96.623%	98.853%	100.732%	93.829%	96.154%	98.213%	99.246%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.238	1.821	3.760	1.164	1.140	1.166	2.433	1.252
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	100.000	100.800	98.630	94.020	93.530	94.160	0.000	92.850
2	20:37:09	102.800	101.300	102.000	95.280	94.070	92.870	0.000	91.830
3	20:37:17	100.300	97.010	98.850	93.240	92.100	93.240	0.000	91.980
X		101.033%	99.685%	99.816%	94.179%	93.234%	93.420%	0.000	92.220%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.526	2.340	1.871	1.090	1.093	0.710	0.000	0.596
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	58.245%	105.100	106.400	43.361%	105.400	105.900	106.200	110.400
2	20:37:09	59.064%	106.300	107.800	43.812%	104.900	107.200	107.500	110.900
3	20:37:17	59.998%	102.300	106.100	44.288%	104.700	105.100	105.400	109.500
X		59.102%	104.574%	106.762%	43.820%	105.012%	106.082%	106.369%	110.279%
σ		0.877%	n/a	n/a	0.464%	n/a	n/a	n/a	n/a
%RSD		1.484	1.994	0.866	1.058	0.308	1.033	0.955	0.657
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:37:01	43.581%	105.400	105.300	105.200	102.600	99.110	60.072%	60.811%
2	20:37:09	44.524%	105.200	106.900	106.800	100.600	101.500	60.520%	61.798%
3	20:37:17	45.082%	105.000	104.900	105.700	100.900	100.900	61.424%	62.645%
X		44.396%	105.181%	105.718%	105.923%	101.365%	100.498%	60.672%	61.751%
σ		0.758%	n/a	n/a	n/a	n/a	n/a	0.689%	0.918%
%RSD		1.708	0.214	1.008	0.800	1.067	1.234	1.135	1.486
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:37:01	103.700	99.980	105.100	106.200	104.600	56.807%		
2	20:37:09	105.200	100.700	105.900	107.000	105.600	56.988%		
3	20:37:17	105.000	101.600	104.100	106.300	105.200	57.278%		
X		104.644%	100.776%	105.059%	106.516%	105.104%	57.025%		
σ		n/a	n/a	n/a	n/a	n/a	0.238%		
%RSD		0.763	0.811	0.860	0.393	0.501	0.417		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	84.892%	-0.353	11.310	13.030	0.000	-92.350	26.930	18.000
2	20:46:14	81.362%	-0.349	3.846	3.834	0.000	-76.560	28.000	19.550
3	20:46:22	81.522%	-0.336	-2.239	-0.992	0.000	-78.430	23.080	17.450
X		82.592%	-0.346	4.305	5.290	0.000	-82.450	26.000	18.340
σ		1.994%	0.009	6.785	7.123	0.000	8.627	2.589	1.084
%RSD		2.414	2.503	157.600	134.700	0.000	10.460	9.957	5.913
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	10.140	85.530	0.000	2.746	13.540	19.830	77.260%	0.106
2	20:46:14	10.740	47.840	0.000	12.250	16.260	24.110	75.189%	0.165
3	20:46:22	11.520	28.470	0.000	6.406	12.020	25.290	74.197%	0.435
X		10.800	53.950	0.000	7.134	13.940	23.080	75.548%	0.235
σ		0.690	29.020	0.000	4.794	2.148	2.871	1.563%	0.176
%RSD		6.386	53.780	0.000	67.200	15.410	12.440	2.069	74.660
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	0.139	0.141	0.337	38.520	18.110	0.022	-0.053	1.070
2	20:46:14	0.071	0.150	0.440	42.120	20.380	-0.036	0.121	1.310
3	20:46:22	0.023	0.172	0.503	41.390	19.240	0.016	0.126	1.425
X		0.078	0.155	0.427	40.680	19.240	0.001	0.064	1.268
σ		0.058	0.016	0.084	1.905	1.135	0.032	0.102	0.181
%RSD		74.940	10.440	19.720	4.683	5.899	4855.000	158.600	14.270
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	1.337	0.551	1.019	0.005	0.011	0.090	0.000	0.234
2	20:46:14	1.289	0.605	0.878	0.044	-0.060	2.256	0.000	0.239
3	20:46:22	1.531	0.291	0.632	0.000	-0.012	3.841	0.000	0.342
X		1.386	0.482	0.843	0.016	-0.020	2.062	0.000	0.272
σ		0.128	0.168	0.196	0.024	0.036	1.883	0.000	0.061
%RSD		9.264	34.880	23.210	146.600	179.500	91.300	0.000	22.430
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	77.718%	0.202	0.315	73.150%	-0.131	-0.069	0.011	0.015
2	20:46:14	78.803%	0.113	0.097	73.344%	-0.134	-0.064	0.023	0.086
3	20:46:22	78.358%	0.247	0.074	73.184%	-0.118	-0.067	0.010	-0.005
X		78.293%	0.187	0.162	73.226%	-0.127	-0.067	0.015	0.032
σ		0.545%	0.068	0.133	0.103%	0.009	0.003	0.007	0.048
%RSD		0.696	36.340	82.030	0.141	6.825	4.014	48.690	150.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:46:06	75.183%	-0.745	-0.233	-1.049	0.170	0.271	79.181%	78.806%
2	20:46:14	75.619%	-0.651	-0.257	-1.032	0.371	0.300	79.938%	80.699%
3	20:46:22	76.268%	-0.731	-0.284	-1.115	0.168	0.238	79.417%	80.399%
X		75.690%	-0.709	-0.258	-1.066	0.237	0.270	79.512%	79.968%
σ		0.546%	0.051	0.026	0.044	0.116	0.031	0.387%	1.017%
%RSD		0.721	7.169	9.974	4.105	49.220	11.590	0.487	1.272
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:46:06	0.069	0.067	0.269	0.283	0.254	74.665%		
2	20:46:14	0.087	0.055	0.247	0.318	0.256	76.366%		
3	20:46:22	0.050	0.043	0.240	0.270	0.250	75.479%		
X		0.069	0.055	0.252	0.290	0.253	75.503%		
σ		0.019	0.012	0.015	0.025	0.003	0.851%		
%RSD		27.270	21.690	5.924	8.547	1.216	1.127		

180-37906-C-3-A

11/5/2014 8:52:08 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	56.807%	12.790	60.610	64.920	0.000	1660.000	49470.000	49260.000
2	20:51:22	54.025%	13.570	54.820	57.300	0.000	1718.000	51770.000	51390.000
3	20:51:30	53.900%	13.530	46.930	52.730	0.000	1740.000	51900.000	51430.000
X		54.911%	13.300	54.120	58.320	0.000	1706.000	51050.000	50700.000
σ		1.643%	0.439	6.866	6.156	0.000	40.930	1367.000	1240.000
%RSD		2.993	3.300	12.690	10.560	0.000	2.399	2.677	2.446
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	119400.000	6751.000	0.000	14010.000	136100.000	142500.000	51.359%	3028.000
2	20:51:22	124600.000	7028.000	0.000	14220.000	140600.000	147200.000	51.273%	3103.000
3	20:51:30	123600.000	7055.000	0.000	14400.000	143400.000	150400.000	51.104%	3184.000
X		122500.000	6944.000	0.000	14210.000	140100.000	146700.000	51.245%	3105.000
σ		2756.000	168.200	0.000	195.900	3665.000	3953.000	0.130%	78.250
%RSD		2.249	2.422	0.000	1.379	2.617	2.694	0.253	2.520
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	498.600	1040.000	4978.000	355300.000	361800.000	273.200	677.200	1637.000
2	20:51:22	502.700	1045.000	5104.000	359500.000	364700.000	278.200	679.600	1657.000
3	20:51:30	505.400	1054.000	5185.000	362000.000	364100.000	279.800	678.700	1668.000
X		502.200	1047.000	5089.000	358900.000	363500.000	277.100	678.500	1654.000
σ		3.422	7.185	104.500	3422.000	1547.000	3.459	1.203	15.750
%RSD		0.681	0.686	2.054	0.954	0.426	1.248	0.177	0.952
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	1769.000	11140.000	11160.000	90.780	10.490	6.318	0.000	493.900
2	20:51:22	1778.000	11200.000	11370.000	90.880	9.302	10.510	0.000	500.800
3	20:51:30	1796.000	11280.000	11300.000	91.090	8.893	6.549	0.000	501.700
X		1781.000	11210.000	11280.000	90.920	9.560	7.792	0.000	498.800
σ		13.990	70.910	107.500	0.155	0.827	2.356	0.000	4.239
%RSD		0.785	0.633	0.953	0.170	8.651	30.240	0.000	0.850
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	0.000	75.760	72.850	39.677%	132.000	135.600	32.040	34.660
2	20:51:22	0.000	75.000	73.140	39.566%	133.900	134.500	32.770	34.070
3	20:51:30	0.000	75.690	72.850	39.304%	131.900	132.400	33.640	35.270
X		0.000	75.480	72.950	39.516%	132.600	134.100	32.820	34.670
σ		0.000	0.417	0.171	0.192%	1.111	1.598	0.805	0.603
%RSD		0.000	0.552	0.235	0.485	0.838	1.192	2.455	1.739
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:14	41.209%	107.300	10.840	10.620	1802.000	1804.000	68.761%	70.398%
2	20:51:22	40.996%	108.200	11.670	9.856	1799.000	1818.000	69.619%	70.180%
3	20:51:30	40.857%	107.700	11.130	10.430	1815.000	1792.000	70.058%	70.058%
X		41.021%	107.700	11.210	10.300	1805.000	1805.000	69.479%	70.212%
σ		0.177%	0.448	0.423	0.397	8.301	13.200	0.660%	0.172%
%RSD		0.432	0.416	3.768	3.857	0.460	0.731	0.950	0.246
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:51:14	2.815	2.921	14800.000	13860.000	14310.000	53.230%		
2	20:51:22	2.971	2.843	15160.000	14060.000	14620.000	52.537%		
3	20:51:30	2.997	2.824	15080.000	13940.000	14560.000	52.674%		
X		2.927	2.863	15010.000	13960.000	14500.000	52.814%		
σ		0.098	0.051	188.100	100.900	166.000	0.367%		
%RSD		3.360	1.792	1.253	0.723	1.145	0.695		

180-37906-C-4-A

11/5/2014 8:57:13 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	52.912%	25.080	67.350	73.970	0.000	1201.000	29640.000	29370.000
2	20:56:28	52.276%	25.800	56.450	62.570	0.000	1216.000	29990.000	29850.000
3	20:56:36	49.591%	28.050	51.880	54.600	0.000	1285.000	31250.000	30770.000
X		51.593%	26.310	58.560	63.720	0.000	1234.000	30290.000	30000.000
σ		1.763%	1.549	7.947	9.736	0.000	44.740	845.100	713.800
%RSD		3.417	5.886	13.570	15.280	0.000	3.626	2.790	2.380
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	253600.000	6026.000	0.000	15960.000	39460.000	39160.000	63.308%	2302.000
2	20:56:28	258200.000	6142.000	0.000	16310.000	40720.000	40380.000	62.991%	2381.000
3	20:56:36	267600.000	6329.000	0.000	16540.000	41820.000	41580.000	62.030%	2439.000
X		259800.000	6166.000	0.000	16270.000	40670.000	40370.000	62.776%	2374.000
σ		7130.000	152.800	0.000	288.800	1180.000	1213.000	0.666%	69.060
%RSD		2.745	2.478	0.000	1.775	2.901	3.005	1.060	2.909
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	653.000	471.300	4099.000	417000.000	419600.000	223.400	364.600	1465.000
2	20:56:28	660.800	475.500	4234.000	419700.000	425700.000	225.800	372.700	1485.000
3	20:56:36	675.900	483.300	4339.000	429000.000	431400.000	229.900	377.500	1493.000
X		663.200	476.700	4224.000	421900.000	425600.000	226.300	371.600	1481.000
σ		11.650	6.118	120.300	6313.000	5908.000	3.299	6.479	14.310
%RSD		1.757	1.283	2.849	1.496	1.388	1.457	1.743	0.966
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	1576.000	9641.000	9739.000	172.200	20.730	20.890	0.000	392.700
2	20:56:28	1583.000	9653.000	9827.000	173.200	20.820	14.560	0.000	386.800
3	20:56:36	1602.000	9766.000	9843.000	171.000	21.400	20.010	0.000	388.300
X		1587.000	9687.000	9803.000	172.100	20.980	18.480	0.000	389.300
σ		13.620	68.540	56.310	1.110	0.364	3.431	0.000	3.053
%RSD		0.859	0.708	0.574	0.645	1.734	18.560	0.000	0.784
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	0.000	23.360	22.310	43.215%	30.940	32.080	22.690	31.130
2	20:56:28	0.000	21.970	22.730	44.110%	31.350	31.060	24.530	32.060
3	20:56:36	0.000	24.260	22.790	44.565%	31.290	31.130	23.900	34.560
X		0.000	23.200	22.610	43.963%	31.190	31.430	23.710	32.580
σ		0.000	1.156	0.260	0.687%	0.224	0.570	0.936	1.777
%RSD		0.000	4.984	1.148	1.563	0.718	1.813	3.950	5.454
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:56:20	43.825%	328.700	18.750	18.240	2819.000	2804.000	81.411%	82.205%
2	20:56:28	44.817%	331.400	18.970	18.080	2787.000	2787.000	82.731%	83.717%
3	20:56:36	44.460%	333.800	19.400	18.020	2838.000	2823.000	82.689%	82.927%
X		44.367%	331.300	19.040	18.120	2815.000	2805.000	82.277%	82.949%
σ		0.503%	2.555	0.329	0.115	25.490	17.940	0.751%	0.756%
%RSD		1.133	0.771	1.727	0.635	0.906	0.640	0.912	0.912
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:56:20	5.001	4.828	11710.000	11260.000	11550.000	56.712%		
2	20:56:28	4.872	4.776	11770.000	11340.000	11610.000	57.914%		
3	20:56:36	4.987	4.881	11710.000	11240.000	11520.000	59.365%		
X		4.954	4.828	11730.000	11280.000	11560.000	57.997%		
σ		0.071	0.053	37.590	55.130	44.200	1.329%		
%RSD		1.425	1.092	0.321	0.489	0.382	2.291		

180-37906-C-5-A

11/5/2014 9:02:16 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	59.156%	17.690	48.080	52.770	0.000	522.000	20530.000	20140.000
2	21:01:32	54.728%	19.540	40.580	44.560	0.000	565.800	21550.000	21260.000
3	21:01:40	54.451%	19.830	31.420	37.050	0.000	580.600	21610.000	21230.000
X		56.112%	19.020	40.030	44.790	0.000	556.100	21230.000	20880.000
σ		2.640%	1.162	8.346	7.862	0.000	30.450	606.000	641.000
%RSD		4.704	6.108	20.850	17.550	0.000	5.476	2.855	3.070
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	134000.000	5250.000	0.000	11160.000	23420.000	22860.000	63.967%	1227.000
2	21:01:32	141200.000	5448.000	0.000	11420.000	24310.000	23630.000	63.086%	1267.000
3	21:01:40	141800.000	5397.000	0.000	11360.000	24750.000	23850.000	62.495%	1284.000
X		139000.000	5365.000	0.000	11310.000	24160.000	23440.000	63.183%	1259.000
σ		4340.000	103.200	0.000	136.900	677.700	519.200	0.741%	29.030
%RSD		3.122	1.923	0.000	1.211	2.805	2.215	1.173	2.305
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	261.200	248.100	9800.000	321400.000	320600.000	239.800	320.100	186.700
2	21:01:32	262.000	252.600	10140.000	326900.000	325400.000	238.900	318.700	187.900
3	21:01:40	267.500	255.700	10230.000	327200.000	327600.000	243.400	320.400	188.400
X		263.600	252.100	10060.000	325200.000	324600.000	240.700	319.800	187.600
σ		3.409	3.869	227.400	3245.000	3608.000	2.398	0.924	0.895
%RSD		1.293	1.534	2.261	0.998	1.112	0.996	0.289	0.477
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	198.500	899.200	912.300	25.710	6.272	0.478	0.000	213.700
2	21:01:32	200.300	910.800	917.600	26.100	6.088	3.030	0.000	212.600
3	21:01:40	200.600	903.300	925.300	25.980	6.180	11.710	0.000	212.500
X		199.800	904.400	918.400	25.930	6.180	5.072	0.000	212.900
σ		1.141	5.889	6.521	0.203	0.092	5.887	0.000	0.673
%RSD		0.571	0.651	0.710	0.782	1.490	116.100	0.000	0.316
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	0.000	5.088	5.041	49.062%	0.942	0.702	3.922	3.874
2	21:01:32	0.000	5.676	4.941	49.249%	0.936	0.815	4.125	3.962
3	21:01:40	0.000	5.082	5.101	48.809%	0.859	0.695	3.559	4.129
X		0.000	5.282	5.028	49.040%	0.912	0.737	3.869	3.988
σ		0.000	0.341	0.081	0.221%	0.047	0.067	0.287	0.130
%RSD		0.000	6.454	1.612	0.450	5.107	9.093	7.417	3.255
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:01:24	49.327%	5.510	0.450	-0.283	1585.000	1571.000	80.981%	81.448%
2	21:01:32	49.271%	5.630	0.571	-0.215	1581.000	1573.000	81.984%	82.316%
3	21:01:40	48.850%	5.974	0.461	-0.196	1590.000	1586.000	82.330%	80.985%
X		49.149%	5.704	0.494	-0.231	1585.000	1576.000	81.765%	81.583%
σ		0.260%	0.241	0.067	0.046	4.471	8.126	0.701%	0.676%
%RSD		0.530	4.222	13.600	19.900	0.282	0.516	0.857	0.828
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:01:24	1.885	1.897	150.300	141.300	146.300	61.783%		
2	21:01:32	1.799	1.834	151.100	140.400	147.300	61.829%		
3	21:01:40	1.948	1.848	149.300	140.500	145.800	62.960%		
X		1.877	1.860	150.200	140.700	146.500	62.190%		
σ		0.074	0.033	0.876	0.533	0.790	0.667%		
%RSD		3.965	1.796	0.583	0.379	0.539	1.072		

180-37906-C-6-A

11/5/2014 9:07:22 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	62.024%	19.580	63.220	64.340	0.000	1057.000	21690.000	21290.000
2	21:06:37	58.703%	21.670	49.750	56.740	0.000	1110.000	21940.000	21840.000
3	21:06:44	58.055%	21.370	47.250	51.560	0.000	1139.000	22740.000	22260.000
X		59.594%	20.870	53.410	57.550	0.000	1102.000	22120.000	21800.000
σ		2.129%	1.132	8.588	6.430	0.000	41.670	549.100	481.900
%RSD		3.572	5.421	16.080	11.170	0.000	3.782	2.482	2.211
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	190600.000	4660.000	0.000	13280.000	49310.000	48970.000	64.687%	1989.000
2	21:06:37	195700.000	4558.000	0.000	13540.000	50360.000	50520.000	64.619%	2039.000
3	21:06:44	199300.000	4868.000	0.000	13760.000	51420.000	51620.000	64.471%	2082.000
X		195200.000	4695.000	0.000	13530.000	50360.000	50370.000	64.592%	2037.000
σ		4375.000	157.800	0.000	239.000	1054.000	1329.000	0.111%	46.330
%RSD		2.241	3.362	0.000	1.766	2.093	2.638	0.171	2.274
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	592.900	439.300	3877.000	394600.000	395000.000	199.400	323.900	1730.000
2	21:06:37	587.900	435.800	3999.000	394400.000	393400.000	200.900	319.500	1700.000
3	21:06:44	594.500	440.300	4077.000	396900.000	395500.000	200.100	319.800	1699.000
X		591.800	438.500	3984.000	395300.000	394700.000	200.100	321.100	1710.000
σ		3.400	2.321	100.700	1407.000	1111.000	0.760	2.461	17.570
%RSD		0.575	0.529	2.527	0.356	0.282	0.380	0.767	1.028
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	1822.000	8835.000	8918.000	242.300	21.800	18.890	0.000	451.000
2	21:06:37	1808.000	8828.000	8867.000	244.200	18.770	20.410	0.000	446.800
3	21:06:44	1803.000	8785.000	8906.000	240.900	20.990	18.540	0.000	446.800
X		1811.000	8816.000	8897.000	242.500	20.520	19.280	0.000	448.200
σ		9.818	27.300	26.480	1.663	1.567	0.994	0.000	2.407
%RSD		0.542	0.310	0.298	0.686	7.638	5.153	0.000	0.537
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	0.000	21.240	21.180	44.137%	31.070	31.610	31.570	40.060
2	21:06:37	0.000	21.800	21.060	44.366%	30.390	30.870	31.890	39.510
3	21:06:44	0.000	21.850	20.870	45.197%	30.740	30.360	31.920	41.470
X		0.000	21.630	21.030	44.567%	30.730	30.950	31.800	40.350
σ		0.000	0.339	0.153	0.557%	0.340	0.628	0.193	1.011
%RSD		0.000	1.568	0.729	1.251	1.107	2.029	0.608	2.505
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:06:29	45.066%	316.900	18.710	17.550	3042.000	3023.000	76.840%	77.200%
2	21:06:37	45.443%	317.600	18.030	17.840	3018.000	3019.000	78.416%	78.223%
3	21:06:44	45.837%	318.300	18.670	17.660	3010.000	3015.000	78.919%	80.310%
X		45.448%	317.600	18.470	17.680	3023.000	3019.000	78.058%	78.578%
σ		0.386%	0.737	0.380	0.146	16.870	4.263	1.085%	1.585%
%RSD		0.849	0.232	2.057	0.827	0.558	0.141	1.390	2.017
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:06:29	4.696	4.312	15360.000	14830.000	15160.000	57.583%		
2	21:06:37	4.311	4.384	15150.000	14590.000	14930.000	60.171%		
3	21:06:44	4.483	4.268	15280.000	14830.000	15180.000	60.555%		
X		4.497	4.321	15260.000	14750.000	15090.000	59.436%		
σ		0.193	0.059	106.200	138.700	136.400	1.617%		
%RSD		4.291	1.365	0.696	0.940	0.904	2.720		

180-37906-C-7-A

11/5/2014 9:12:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	60.983%	19.600	45.620	49.830	0.000	528.900	23920.000	23680.000
2	21:11:44	57.444%	20.540	40.830	43.480	0.000	565.600	24710.000	24350.000
3	21:11:52	58.493%	21.180	38.080	36.340	0.000	569.900	24460.000	24220.000
X		58.973%	20.440	41.510	43.220	0.000	554.800	24370.000	24080.000
σ		1.818%	0.798	3.814	6.746	0.000	22.520	404.600	353.300
%RSD		3.083	3.907	9.187	15.610	0.000	4.059	1.661	1.467
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	148300.000	5108.000	0.000	12170.000	14330.000	13450.000	66.078%	1451.000
2	21:11:44	152900.000	5714.000	0.000	12480.000	14590.000	13870.000	65.894%	1493.000
3	21:11:52	151800.000	5690.000	0.000	12570.000	14620.000	14240.000	65.952%	1505.000
X		151000.000	5504.000	0.000	12410.000	14510.000	13860.000	65.975%	1483.000
σ		2373.000	343.100	0.000	208.000	157.000	398.500	0.094%	28.100
%RSD		1.571	6.234	0.000	1.676	1.082	2.876	0.143	1.895
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	321.300	281.800	3136.000	229800.000	228000.000	340.400	406.100	216.600
2	21:11:44	322.800	283.200	3244.000	231200.000	231300.000	337.600	409.300	218.200
3	21:11:52	321.300	281.500	3285.000	229800.000	230100.000	335.500	401.700	217.900
X		321.800	282.100	3221.000	230300.000	229800.000	337.800	405.700	217.600
σ		0.866	0.906	76.830	813.600	1651.000	2.467	3.818	0.838
%RSD		0.269	0.321	2.385	0.353	0.718	0.730	0.941	0.385
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	232.000	967.200	987.600	43.060	6.542	4.647	0.000	162.500
2	21:11:44	230.300	971.600	988.300	42.540	7.085	6.544	0.000	163.600
3	21:11:52	231.000	971.100	989.200	42.450	6.527	5.882	0.000	163.800
X		231.100	970.000	988.400	42.690	6.718	5.691	0.000	163.300
σ		0.861	2.402	0.795	0.327	0.318	0.963	0.000	0.681
%RSD		0.373	0.248	0.080	0.767	4.731	16.920	0.000	0.417
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	0.000	7.719	7.163	50.802%	1.225	1.044	4.419	5.077
2	21:11:44	0.000	8.699	8.300	50.620%	1.116	1.158	5.489	4.906
3	21:11:52	0.000	8.643	7.765	50.267%	1.031	0.946	4.345	4.542
X		0.000	8.354	7.743	50.563%	1.124	1.049	4.751	4.842
σ		0.000	0.551	0.569	0.272%	0.097	0.106	0.640	0.273
%RSD		0.000	6.592	7.345	0.538	8.636	10.100	13.470	5.643
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:11:36	50.778%	7.127	0.835	0.096	1564.000	1544.000	83.340%	83.276%
2	21:11:44	50.345%	7.008	0.857	0.096	1553.000	1552.000	83.831%	82.463%
3	21:11:52	50.106%	6.741	0.849	0.068	1549.000	1544.000	84.898%	83.707%
X		50.410%	6.959	0.847	0.087	1555.000	1547.000	84.023%	83.149%
σ		0.341%	0.198	0.011	0.016	7.898	4.793	0.797%	0.632%
%RSD		0.676	2.847	1.308	18.580	0.508	0.310	0.948	0.760
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:11:36	2.171	1.999	202.400	190.000	197.700	63.015%		
2	21:11:44	1.968	1.986	202.300	190.100	197.900	63.686%		
3	21:11:52	1.963	1.980	202.900	187.200	196.800	62.917%		
X		2.034	1.988	202.600	189.100	197.500	63.206%		
σ		0.118	0.010	0.275	1.670	0.548	0.418%		
%RSD		5.818	0.490	0.136	0.883	0.278	0.662		



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11/5/2014 9:17:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	71.770%	3.455	27.210	31.500	0.000	287.000	6646.000	6585.000
2	21:16:47	68.070%	3.436	16.920	22.760	0.000	299.800	6814.000	6751.000
3	21:16:54	70.149%	3.301	13.070	16.000	0.000	294.900	6717.000	6682.000
X		69.996%	3.397	19.070	23.420	0.000	293.900	6726.000	6673.000
σ		1.855%	0.084	7.311	7.772	0.000	6.430	84.080	83.360
%RSD		2.650	2.463	38.350	33.190	0.000	2.188	1.250	1.249
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	23300.000	2957.000	0.000	3903.000	1794.000	1664.000	60.727%	573.900
2	21:16:47	23860.000	2939.000	0.000	3998.000	1932.000	1716.000	59.506%	588.000
3	21:16:54	23710.000	2925.000	0.000	4092.000	1968.000	1793.000	58.963%	611.500
X		23620.000	2940.000	0.000	3997.000	1898.000	1724.000	59.732%	591.100
σ		291.700	16.130	0.000	94.360	92.180	65.080	0.903%	18.990
%RSD		1.235	0.548	0.000	2.361	4.857	3.774	1.512	3.213
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	94.140	163.600	752.400	81440.000	79510.000	30.640	57.390	54.580
2	21:16:47	94.440	166.100	788.500	82840.000	80420.000	31.500	58.300	54.530
3	21:16:54	97.270	168.200	810.100	82850.000	80570.000	31.350	57.640	54.100
X		95.290	166.000	783.700	82370.000	80160.000	31.160	57.780	54.400
σ		1.724	2.316	29.140	807.800	572.100	0.458	0.466	0.265
%RSD		1.809	1.396	3.718	0.981	0.714	1.470	0.806	0.488
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	55.230	298.100	302.800	11.940	0.429	-1.847	0.000	25.790
2	21:16:47	57.990	296.900	302.800	12.010	0.537	-8.762	0.000	25.630
3	21:16:54	57.510	301.300	306.300	11.960	0.775	-9.347	0.000	25.310
X		56.910	298.800	304.000	11.970	0.580	-6.652	0.000	25.580
σ		1.473	2.264	1.985	0.036	0.177	4.171	0.000	0.248
%RSD		2.588	0.758	0.653	0.299	30.450	62.710	0.000	0.969
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	0.000	3.492	3.084	47.206%	0.044	0.012	0.781	0.702
2	21:16:47	0.000	3.122	3.193	47.558%	-0.030	0.019	0.754	0.606
3	21:16:54	0.000	3.435	3.485	48.455%	-0.016	0.086	0.744	0.830
X		0.000	3.350	3.254	47.740%	-0.001	0.039	0.760	0.712
σ		0.000	0.199	0.207	0.644%	0.040	0.041	0.019	0.112
%RSD		0.000	5.952	6.369	1.349	6011.000	105.500	2.516	15.770
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:16:39	46.905%	0.794	0.410	-0.280	139.100	139.700	64.924%	64.241%
2	21:16:47	47.415%	1.067	0.490	-0.273	137.100	142.400	65.016%	64.958%
3	21:16:54	47.915%	0.802	0.515	-0.347	135.800	139.200	66.126%	66.540%
X		47.412%	0.887	0.472	-0.300	137.300	140.400	65.355%	65.246%
σ		0.505%	0.155	0.055	0.041	1.626	1.734	0.669%	1.176%
%RSD		1.065	17.510	11.590	13.510	1.184	1.235	1.024	1.802
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:16:39	0.192	0.240	37.550	34.830	36.170	55.860%		
2	21:16:47	0.259	0.232	36.730	34.610	35.770	57.964%		
3	21:16:54	0.250	0.221	37.850	35.480	36.530	58.203%		
X		0.234	0.231	37.380	34.970	36.150	57.342%		
σ		0.036	0.010	0.582	0.456	0.380	1.289%		
%RSD		15.450	4.193	1.556	1.302	1.052	2.249		

180-37750-B-1-E

11/5/2014 9:22:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	70.481%	1.017	33.850	40.240	0.000	18050.000	4682.000	4678.000
2	21:21:51	68.878%	0.833	31.870	31.430	0.000	18170.000	4704.000	4701.000
3	21:21:59	68.114%	1.058	21.800	24.970	0.000	18400.000	4791.000	4765.000
X		69.158%	0.969	29.180	32.210	0.000	18210.000	4726.000	4714.000
σ		1.208%	0.120	6.462	7.667	0.000	179.300	57.670	45.330
%RSD		1.746	12.330	22.150	23.800	0.000	0.985	1.220	0.962
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	13050.000	3333.000	0.000	2574.000	5434.000	5131.000	58.368%	648.600
2	21:21:51	13400.000	3369.000	0.000	2611.000	5652.000	5337.000	57.945%	666.600
3	21:21:59	13400.000	3390.000	0.000	2663.000	5532.000	5429.000	57.440%	681.700
X		13290.000	3364.000	0.000	2616.000	5539.000	5299.000	57.917%	665.600
σ		201.600	28.890	0.000	44.620	109.100	152.800	0.464%	16.570
%RSD		1.518	0.859	0.000	1.706	1.970	2.883	0.802	2.489
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	189.100	709.100	508.800	85510.000	83440.000	22.520	59.430	146.400
2	21:21:51	186.800	713.600	524.000	86940.000	84310.000	22.400	62.170	145.000
3	21:21:59	187.600	716.600	535.700	86700.000	84700.000	22.220	62.570	148.100
X		187.800	713.100	522.800	86390.000	84150.000	22.380	61.390	146.500
σ		1.158	3.770	13.490	766.700	645.600	0.150	1.708	1.545
%RSD		0.616	0.529	2.579	0.888	0.767	0.669	2.782	1.055
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	154.200	2260.000	2277.000	25.500	3.086	-5.372	0.000	69.340
2	21:21:51	151.400	2285.000	2304.000	25.260	2.844	-3.841	0.000	70.390
3	21:21:59	155.700	2268.000	2302.000	24.870	3.228	-2.069	0.000	70.630
X		153.800	2271.000	2295.000	25.210	3.053	-3.760	0.000	70.120
σ		2.181	12.650	14.860	0.320	0.194	1.653	0.000	0.686
%RSD		1.418	0.557	0.648	1.269	6.361	43.960	0.000	0.978
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	0.000	5.029	5.487	51.072%	0.935	0.817	14.520	22.990
2	21:21:51	0.000	5.310	5.558	50.496%	0.885	1.061	14.700	23.040
3	21:21:59	0.000	5.444	5.335	49.761%	0.851	0.832	14.040	22.990
X		0.000	5.261	5.460	50.443%	0.890	0.904	14.420	23.010
σ		0.000	0.212	0.114	0.657%	0.042	0.137	0.341	0.030
%RSD		0.000	4.024	2.086	1.303	4.760	15.140	2.365	0.129
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:21:43	51.128%	335.700	2.344	1.387	71.180	70.380	66.629%	66.533%
2	21:21:51	50.963%	336.400	2.460	1.644	70.000	71.570	66.689%	66.750%
3	21:21:59	50.388%	338.700	2.421	1.483	70.160	70.530	66.131%	66.340%
X		50.826%	336.900	2.409	1.505	70.450	70.830	66.483%	66.541%
σ		0.389%	1.605	0.059	0.130	0.641	0.649	0.306%	0.205%
%RSD		0.765	0.476	2.446	8.634	0.910	0.916	0.461	0.308
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:21:43	0.746	0.643	179.600	168.100	173.500	65.334%		
2	21:21:51	0.720	0.636	177.400	167.600	171.700	65.602%		
3	21:21:59	0.663	0.661	181.500	170.800	176.600	63.329%		
X		0.710	0.647	179.500	168.800	173.900	64.755%		
σ		0.042	0.013	2.074	1.703	2.467	1.243%		
%RSD		5.974	1.994	1.155	1.009	1.419	1.919		

180-37750-B-2-E

11/5/2014 9:27:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	62.659%	6.644	120.200	123.400	0.000	41950.000	24600.000	24390.000
2	21:26:56	60.794%	6.408	110.500	119.600	0.000	42890.000	25050.000	24930.000
3	21:27:04	60.995%	6.264	104.800	113.200	0.000	42860.000	24870.000	24970.000
X		61.483%	6.439	111.900	118.800	0.000	42570.000	24840.000	24770.000
σ		1.024%	0.192	7.797	5.145	0.000	539.400	228.400	323.200
%RSD		1.665	2.976	6.971	4.332	0.000	1.267	0.919	1.305
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	77300.000	5999.000	0.000	11530.000	31460.000	30740.000	55.758%	1894.000
2	21:26:56	78680.000	6570.000	0.000	11710.000	32630.000	31730.000	55.033%	1953.000
3	21:27:04	79390.000	6108.000	0.000	11870.000	33050.000	32310.000	54.695%	2009.000
X		78460.000	6225.000	0.000	11700.000	32380.000	31590.000	55.162%	1952.000
σ		1063.000	303.400	0.000	171.900	823.100	790.000	0.543%	57.600
%RSD		1.355	4.873	0.000	1.469	2.542	2.501	0.984	2.951
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	747.200	3173.000	2639.000	455800.000	452900.000	91.840	246.000	835.800
2	21:26:56	751.600	3210.000	2702.000	462800.000	458200.000	91.830	248.000	831.200
3	21:27:04	753.800	3206.000	2762.000	458300.000	454400.000	92.410	241.600	830.100
X		750.900	3196.000	2701.000	459000.000	455200.000	92.020	245.200	832.400
σ		3.378	20.260	61.370	3583.000	2755.000	0.335	3.277	3.043
%RSD		0.450	0.634	2.272	0.781	0.605	0.364	1.336	0.366
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	888.000	8984.000	9067.000	119.900	16.910	17.940	0.000	344.800
2	21:26:56	882.900	8978.000	9099.000	117.100	18.630	17.270	0.000	343.600
3	21:27:04	865.600	8900.000	8981.000	116.400	16.050	22.530	0.000	342.400
X		878.800	8954.000	9049.000	117.800	17.200	19.250	0.000	343.600
σ		11.740	46.900	60.810	1.862	1.313	2.862	0.000	1.166
%RSD		1.336	0.524	0.672	1.581	7.635	14.870	0.000	0.339
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	0.000	23.960	21.240	40.856%	6.784	7.007	45.670	89.480
2	21:26:56	0.000	23.280	21.800	41.511%	6.927	7.328	46.960	91.190
3	21:27:04	0.000	23.060	22.730	42.535%	7.025	7.209	44.780	89.980
X		0.000	23.430	21.920	41.634%	6.912	7.181	45.800	90.220
σ		0.000	0.469	0.753	0.846%	0.121	0.162	1.096	0.879
%RSD		0.000	2.001	3.436	2.032	1.750	2.260	2.393	0.975
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:26:48	41.247%	1814.000	12.550	12.080	417.300	424.300	62.804%	62.418%
2	21:26:56	41.570%	1829.000	13.270	12.160	419.300	434.200	62.581%	63.603%
3	21:27:04	42.396%	1825.000	13.610	12.550	422.900	420.600	63.017%	63.726%
X		41.738%	1823.000	13.150	12.260	419.900	426.300	62.801%	63.249%
σ		0.593%	7.634	0.539	0.251	2.831	7.036	0.218%	0.722%
%RSD		1.420	0.419	4.099	2.045	0.674	1.650	0.347	1.142
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:26:48	2.850	2.627	1125.000	1064.000	1102.000	51.264%		
2	21:26:56	2.589	2.563	1129.000	1062.000	1113.000	52.402%		
3	21:27:04	2.779	2.479	1121.000	1054.000	1104.000	54.690%		
X		2.739	2.557	1125.000	1060.000	1106.000	52.785%		
σ		0.135	0.074	4.406	5.386	5.947	1.745%		
%RSD		4.922	2.900	0.392	0.508	0.538	3.306		

180-37750-B-3-E

11/5/2014 9:32:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	63.033%	5.259	113.800	112.500	0.000	50040.000	24030.000	24160.000
2	21:32:03	60.254%	5.608	110.000	112.000	0.000	52470.000	25010.000	25020.000
3	21:32:11	57.818%	5.487	106.000	105.500	0.000	54090.000	25890.000	25900.000
X		60.369%	5.451	110.000	110.000	0.000	52200.000	24980.000	25030.000
σ		2.609%	0.177	3.878	3.879	0.000	2037.000	928.200	867.600
%RSD		4.322	3.250	3.527	3.526	0.000	3.902	3.716	3.467
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	65960.000	6439.000	0.000	10940.000	12800.000	12180.000	55.147%	1887.000
2	21:32:03	68950.000	6655.000	0.000	11320.000	12960.000	12880.000	53.212%	1973.000
3	21:32:11	70970.000	6344.000	0.000	11420.000	13650.000	13040.000	52.592%	2006.000
X		68620.000	6479.000	0.000	11230.000	13140.000	12700.000	53.650%	1955.000
σ		2520.000	159.000	0.000	254.900	454.600	459.600	1.333%	61.650
%RSD		3.673	2.455	0.000	2.271	3.460	3.619	2.484	3.152
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	719.400	3775.000	2587.000	413800.000	409700.000	80.340	235.200	827.100
2	21:32:03	752.100	3905.000	2684.000	427500.000	422200.000	82.660	234.300	846.000
3	21:32:11	756.000	3932.000	2742.000	431500.000	425100.000	82.810	238.500	864.700
X		742.500	3871.000	2671.000	424300.000	419000.000	81.930	236.000	845.900
σ		20.110	83.920	78.200	9279.000	8187.000	1.386	2.185	18.790
%RSD		2.708	2.168	2.928	2.187	1.954	1.692	0.926	2.222
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	880.300	7720.000	7794.000	113.500	15.580	13.890	0.000	227.700
2	21:32:03	897.900	7896.000	7924.000	115.800	15.790	9.456	0.000	229.900
3	21:32:11	906.800	7991.000	8057.000	117.400	16.370	19.820	0.000	235.700
X		895.000	7869.000	7925.000	115.600	15.910	14.390	0.000	231.100
σ		13.470	137.700	131.700	1.987	0.411	5.197	0.000	4.153
%RSD		1.505	1.750	1.662	1.719	2.581	36.120	0.000	1.797
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	0.000	25.940	25.030	44.898%	8.227	7.822	37.950	81.640
2	21:32:03	0.000	24.710	25.790	44.252%	8.633	8.542	36.960	80.940
3	21:32:11	0.000	24.830	25.780	43.040%	7.980	8.498	36.190	82.920
X		0.000	25.160	25.530	44.063%	8.280	8.288	37.040	81.840
σ		0.000	0.676	0.437	0.943%	0.330	0.404	0.883	1.005
%RSD		0.000	2.686	1.711	2.141	3.981	4.869	2.383	1.228
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:31:55	45.140%	1838.000	13.330	11.900	278.500	281.300	63.329%	63.367%
2	21:32:03	44.927%	1836.000	13.610	11.740	279.800	275.300	63.068%	63.162%
3	21:32:11	43.025%	1866.000	13.150	12.360	283.200	285.300	62.368%	63.353%
X		44.364%	1847.000	13.360	12.000	280.500	280.600	62.922%	63.294%
σ		1.165%	16.590	0.230	0.321	2.420	5.039	0.497%	0.115%
%RSD		2.625	0.898	1.719	2.673	0.863	1.796	0.790	0.181
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:31:55	2.314	2.116	1057.000	991.500	1040.000	60.606%		
2	21:32:03	2.290	2.277	1062.000	1001.000	1051.000	59.252%		
3	21:32:11	2.359	2.344	1077.000	1008.000	1058.000	56.326%		
X		2.321	2.246	1065.000	1000.000	1050.000	58.728%		
σ		0.035	0.117	10.570	8.121	9.058	2.188%		
%RSD		1.504	5.205	0.993	0.812	0.863	3.725		

180-37750-D-5-E

11/5/2014 9:37:52 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	63.795%	5.461	120.600	125.000	0.000	52740.000	26040.000	25860.000
2	21:37:07	62.412%	5.696	115.800	119.900	0.000	54070.000	26690.000	26640.000
3	21:37:15	61.806%	6.404	104.400	113.400	0.000	54640.000	27120.000	26980.000
X		62.671%	5.853	113.600	119.400	0.000	53820.000	26620.000	26490.000
σ		1.020%	0.491	8.329	5.836	0.000	974.500	542.900	575.600
%RSD		1.627	8.386	7.331	4.886	0.000	1.811	2.040	2.173
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	68390.000	5867.000	0.000	11760.000	23280.000	22510.000	51.883%	1985.000
2	21:37:07	69980.000	6370.000	0.000	12060.000	23930.000	23170.000	51.497%	2038.000
3	21:37:15	70950.000	6376.000	0.000	12170.000	24680.000	23590.000	50.856%	2079.000
X		69770.000	6204.000	0.000	12000.000	23960.000	23090.000	51.412%	2034.000
σ		1293.000	291.900	0.000	208.700	697.600	542.800	0.519%	47.280
%RSD		1.853	4.704	0.000	1.740	2.911	2.351	1.009	2.324
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	844.400	4478.000	3160.000	534500.000	526600.000	93.770	275.200	992.400
2	21:37:07	863.700	4553.000	3238.000	540100.000	533000.000	93.030	277.200	1007.000
3	21:37:15	875.600	4605.000	3325.000	545600.000	539200.000	93.770	280.500	1002.000
X		861.200	4545.000	3241.000	540000.000	532900.000	93.520	277.600	1000.000
σ		15.770	63.480	82.570	5563.000	6292.000	0.424	2.685	7.325
%RSD		1.831	1.397	2.548	1.030	1.181	0.453	0.967	0.732
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	1043.000	10780.000	10840.000	137.100	18.050	25.500	0.000	313.400
2	21:37:07	1049.000	10810.000	10970.000	137.200	18.300	14.920	0.000	314.500
3	21:37:15	1056.000	10820.000	10920.000	137.300	20.140	20.390	0.000	312.700
X		1049.000	10800.000	10910.000	137.200	18.830	20.270	0.000	313.500
σ		6.778	24.470	61.360	0.115	1.146	5.288	0.000	0.914
%RSD		0.646	0.227	0.562	0.084	6.086	26.090	0.000	0.292
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	0.000	31.410	29.580	38.762%	9.983	10.010	55.260	118.000
2	21:37:07	0.000	30.830	29.340	39.500%	9.713	9.802	55.230	117.900
3	21:37:15	0.000	31.370	30.110	40.394%	9.482	9.690	54.650	117.400
X		0.000	31.200	29.680	39.552%	9.726	9.832	55.050	117.800
σ		0.000	0.328	0.394	0.817%	0.251	0.160	0.343	0.287
%RSD		0.000	1.052	1.327	2.066	2.582	1.629	0.623	0.243
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:37:00	38.679%	2529.000	16.200	15.370	333.100	335.300	58.232%	58.346%
2	21:37:07	39.449%	2548.000	17.130	15.540	341.100	337.700	59.888%	60.226%
3	21:37:15	40.940%	2529.000	16.990	15.470	332.100	333.900	60.073%	60.922%
X		39.689%	2535.000	16.770	15.460	335.400	335.700	59.398%	59.831%
σ		1.150%	11.050	0.501	0.085	4.931	1.920	1.014%	1.333%
%RSD		2.897	0.436	2.989	0.551	1.470	0.572	1.706	2.227
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:37:00	2.614	2.641	1340.000	1260.000	1317.000	49.707%		
2	21:37:07	2.870	2.635	1337.000	1253.000	1314.000	51.994%		
3	21:37:15	2.802	2.635	1335.000	1252.000	1316.000	53.738%		
X		2.762	2.637	1337.000	1255.000	1316.000	51.813%		
σ		0.133	0.003	2.516	4.240	1.967	2.022%		
%RSD		4.813	0.129	0.188	0.338	0.149	3.902		

CCV 1369903 11/5/2014 9:42:55 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	67.883%	89.710	113.200	114.600	0.000	48730.000	43220.000	43510.000
2	21:42:10	67.840%	93.490	108.000	107.200	0.000	49440.000	44330.000	44400.000
3	21:42:18	68.920%	92.310	101.800	101.400	0.000	49160.000	43850.000	44110.000
X		68.215%	91.837%	107.668%	107.740%	0.000	98.216%	87.600%	88.011%
σ		0.611%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.896	2.107	5.323	6.165	0.000	0.726	1.276	1.035
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	510.200	5824.000	0.000	56490.000	50250.000	50100.000	52.493%	104.200
2	21:42:10	518.400	6021.000	0.000	58790.000	52110.000	52530.000	51.772%	106.900
3	21:42:18	499.700	6069.000	0.000	59650.000	53240.000	53780.000	51.945%	114.900
X		101.887%	119.422%	0.000	116.622%	103.738%	104.274%	52.070%	108.661%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.377%	n/a
%RSD		1.840	2.177	0.000	2.799	2.916	3.594	0.723	5.108
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	97.090	101.100	495.000	26260.000	23960.000	97.520	98.200	101.500
2	21:42:10	98.120	102.500	517.400	26570.000	24250.000	98.070	97.640	104.100
3	21:42:18	96.640	101.300	529.700	26280.000	23710.000	98.150	100.200	103.500
X		97.284%	101.646%	102.804%	105.477%	95.892%	97.914%	98.668%	103.002%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.777	0.712	3.424	0.677	1.135	0.348	1.341	1.308
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	103.900	104.500	109.500	95.430	96.460	92.130	0.000	91.540
2	21:42:10	105.500	107.700	106.400	95.950	96.570	93.680	0.000	93.150
3	21:42:18	105.400	104.900	105.900	94.950	93.100	96.900	0.000	91.350
X		104.938%	105.707%	107.272%	95.443%	95.379%	94.240%	0.000	92.015%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.842	1.630	1.809	0.526	2.067	2.584	0.000	1.078
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	57.596%	104.100	107.100	45.299%	105.500	105.900	106.200	106.800
2	21:42:10	56.770%	104.100	105.800	44.027%	104.900	105.800	106.800	110.000
3	21:42:18	56.564%	102.900	107.700	42.763%	104.300	108.500	105.500	107.400
X		56.977%	103.689%	106.833%	44.030%	104.868%	106.718%	106.169%	108.067%
σ		0.547%	n/a	n/a	1.268%	n/a	n/a	n/a	n/a
%RSD		0.959	0.671	0.900	2.879	0.571	1.435	0.639	1.541
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:42:02	45.698%	108.200	103.800	103.900	102.000	101.400	59.168%	60.149%
2	21:42:10	44.971%	107.000	103.300	104.400	99.190	99.550	58.550%	58.812%
3	21:42:18	43.421%	108.400	103.200	104.300	99.510	101.100	57.505%	58.850%
X		44.697%	107.846%	103.417%	104.208%	100.239%	100.674%	58.408%	59.270%
σ		1.163%	n/a	n/a	n/a	n/a	n/a	0.841%	0.761%
%RSD		2.602	0.723	0.305	0.234	1.547	0.970	1.439	1.284
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:42:02	106.500	105.200	108.400	111.700	109.400	61.142%		
2	21:42:10	106.400	105.300	108.300	111.300	109.100	59.550%		
3	21:42:18	108.100	105.200	108.900	110.400	109.600	56.409%		
X		107.026%	105.256%	108.546%	111.136%	109.356%	59.034%		
σ		n/a	n/a	n/a	n/a	n/a	2.408%		
%RSD		0.910	0.060	0.316	0.560	0.254	4.080		

CCB6 11/5/2014 9:52:04 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	85.528%	-0.379	10.510	9.595	0.000	-137.700	21.980	10.640
2	21:51:18	85.388%	-0.361	2.784	0.376	0.000	-132.500	23.620	13.870
3	21:51:26	83.177%	-0.342	-4.509	-3.991	0.000	-130.300	21.540	16.050
X		84.698%	-0.361	2.928	1.993	0.000	-133.500	22.380	13.520
σ		1.319%	0.019	7.510	6.936	0.000	3.833	1.099	2.720
%RSD		1.557	5.247	256.500	347.900	0.000	2.871	4.912	20.110
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	11.170	89.600	0.000	-17.400	4.175	17.190	81.012%	0.144
2	21:51:18	12.890	51.930	0.000	-21.590	8.350	20.090	79.782%	0.173
3	21:51:26	11.570	32.670	0.000	-7.761	10.730	22.320	77.881%	0.536
X		11.880	58.070	0.000	-15.580	7.752	19.860	79.558%	0.284
σ		0.900	28.960	0.000	7.090	3.319	2.572	1.577%	0.218
%RSD		7.578	49.880	0.000	45.500	42.810	12.950	1.983	76.820
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	0.215	0.629	0.396	80.120	56.570	-0.055	0.147	1.793
2	21:51:18	0.282	0.634	0.517	85.870	66.680	-0.056	0.107	1.593
3	21:51:26	0.241	0.582	0.533	78.930	53.540	-0.019	0.172	1.792
X		0.246	0.615	0.482	81.640	58.930	-0.043	0.142	1.726
σ		0.034	0.029	0.075	3.713	6.880	0.021	0.033	0.115
%RSD		13.850	4.667	15.560	4.547	11.670	48.140	23.320	6.673
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	1.813	1.304	1.741	-0.002	0.033	0.372	0.000	0.250
2	21:51:18	1.477	1.596	1.414	0.036	-0.107	0.046	0.000	0.282
3	21:51:26	2.036	1.218	1.440	0.007	0.082	-0.981	0.000	0.229
X		1.775	1.373	1.532	0.014	0.003	-0.188	0.000	0.254
σ		0.282	0.198	0.182	0.020	0.098	0.706	0.000	0.026
%RSD		15.860	14.460	11.860	141.500	3336.000	375.900	0.000	10.400
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	77.168%	0.111	0.177	76.966%	-0.137	-0.072	0.068	-0.002
2	21:51:18	76.623%	0.047	0.104	76.494%	-0.131	-0.064	0.080	0.003
3	21:51:26	77.357%	0.094	0.106	75.473%	-0.135	-0.095	-0.002	0.039
X		77.049%	0.084	0.129	76.311%	-0.134	-0.077	0.049	0.014
σ		0.381%	0.033	0.041	0.763%	0.003	0.016	0.044	0.022
%RSD		0.494	39.740	32.130	1.000	2.130	21.040	90.690	164.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:51:11	79.445%	-0.427	-0.230	-1.092	0.220	0.133	77.810%	78.164%
2	21:51:18	79.189%	-0.362	-0.279	-1.157	-0.015	0.163	78.637%	79.283%
3	21:51:26	76.382%	-0.523	-0.270	-1.140	0.226	0.136	77.838%	78.172%
X		78.339%	-0.437	-0.260	-1.130	0.143	0.144	78.095%	78.540%
σ		1.699%	0.081	0.026	0.033	0.138	0.017	0.469%	0.644%
%RSD		2.169	18.440	10.110	2.959	95.920	11.570	0.601	0.820
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:51:11	0.081	0.045	0.462	0.431	0.427	88.154%		
2	21:51:18	0.053	0.059	0.442	0.378	0.412	86.530%		
3	21:51:26	0.048	0.041	0.377	0.413	0.399	83.584%		
X		0.061	0.049	0.427	0.408	0.413	86.089%		
σ		0.018	0.009	0.045	0.027	0.014	2.317%		
%RSD		29.880	19.480	10.480	6.638	3.326	2.691		

180-37750-B-6-E

11/5/2014 9:57:12 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	70.108%	5.687	126.700	127.100	0.000	52060.000	26480.000	26360.000
2	21:56:26	67.161%	6.322	121.800	122.200	0.000	52830.000	26590.000	26650.000
3	21:56:34	65.487%	6.780	112.800	118.700	0.000	53430.000	26920.000	26860.000
X		67.585%	6.263	120.400	122.700	0.000	52770.000	26660.000	26620.000
σ		2.339%	0.549	7.035	4.202	0.000	682.700	228.300	246.400
%RSD		3.461	8.768	5.841	3.425	0.000	1.294	0.857	0.926
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	70170.000	6208.000	0.000	12340.000	20000.000	19420.000	56.932%	2098.000
2	21:56:26	70980.000	6350.000	0.000	12560.000	20650.000	19960.000	56.605%	2177.000
3	21:56:34	71850.000	6437.000	0.000	12820.000	21070.000	20460.000	55.498%	2238.000
X		71000.000	6332.000	0.000	12570.000	20570.000	19950.000	56.345%	2171.000
σ		841.000	115.200	0.000	240.000	539.200	518.100	0.751%	70.160
%RSD		1.185	1.819	0.000	1.909	2.621	2.597	1.334	3.232
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	863.700	4580.000	3237.000	550000.000	539700.000	94.120	279.600	1031.000
2	21:56:26	863.200	4567.000	3332.000	545800.000	538000.000	93.190	274.800	1005.000
3	21:56:34	880.300	4621.000	3437.000	549500.000	540400.000	94.880	275.500	1013.000
X		869.100	4589.000	3335.000	548400.000	539400.000	94.060	276.600	1016.000
σ		9.754	28.010	100.000	2301.000	1237.000	0.847	2.565	13.450
%RSD		1.122	0.610	2.999	0.420	0.229	0.901	0.927	1.323
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	1065.000	11190.000	11260.000	142.700	21.390	15.830	0.000	314.600
2	21:56:26	1061.000	11030.000	11170.000	141.100	19.850	15.310	0.000	312.100
3	21:56:34	1053.000	11040.000	11130.000	139.200	19.990	26.510	0.000	307.700
X		1060.000	11090.000	11180.000	141.000	20.410	19.210	0.000	311.400
σ		6.169	89.250	63.960	1.747	0.854	6.326	0.000	3.506
%RSD		0.582	0.805	0.572	1.239	4.182	32.920	0.000	1.126
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	0.000	31.380	32.610	40.494%	10.190	10.120	61.080	124.700
2	21:56:26	0.000	30.780	31.300	41.257%	10.460	10.660	59.480	121.400
3	21:56:34	0.000	30.670	30.110	41.618%	10.090	10.570	58.230	125.200
X		0.000	30.940	31.340	41.123%	10.250	10.450	59.590	123.700
σ		0.000	0.385	1.249	0.574%	0.194	0.291	1.428	2.085
%RSD		0.000	1.244	3.985	1.395	1.893	2.782	2.396	1.685
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:56:19	40.923%	2660.000	18.260	16.390	355.800	352.700	59.780%	59.965%
2	21:56:26	41.353%	2672.000	18.590	17.280	348.500	353.000	61.140%	61.378%
3	21:56:34	41.929%	2667.000	18.280	17.600	347.400	353.600	61.350%	61.751%
X		41.402%	2666.000	18.380	17.090	350.600	353.100	60.757%	61.031%
σ		0.505%	6.325	0.184	0.627	4.573	0.482	0.852%	0.942%
%RSD		1.219	0.237	1.001	3.667	1.304	0.136	1.403	1.544
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:56:19	2.941	2.751	1403.000	1306.000	1370.000	52.523%		
2	21:56:26	2.921	2.952	1397.000	1314.000	1378.000	53.961%		
3	21:56:34	2.737	2.736	1395.000	1307.000	1375.000	55.257%		
X		2.866	2.813	1398.000	1309.000	1374.000	53.914%		
σ		0.113	0.121	4.520	4.164	4.138	1.368%		
%RSD		3.931	4.295	0.323	0.318	0.301	2.537		



180-37750-B-7-E

11/5/2014 10:02:18 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	71.465%	0.767	38.250	42.630	0.000	21950.000	5393.000	5298.000
2	22:01:32	71.850%	0.928	31.150	32.730	0.000	22130.000	5496.000	5524.000
3	22:01:40	71.306%	0.777	28.190	28.070	0.000	22230.000	5535.000	5460.000
X		71.540%	0.824	32.530	34.480	0.000	22100.000	5475.000	5427.000
σ		0.280%	0.090	5.167	7.434	0.000	140.700	73.260	116.300
%RSD		0.391	10.920	15.880	21.560	0.000	0.637	1.338	2.143
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	12880.000	4072.000	0.000	2885.000	13040.000	12830.000	55.402%	881.300
2	22:01:32	13200.000	4140.000	0.000	2981.000	13980.000	13350.000	54.568%	927.100
3	22:01:40	13190.000	3976.000	0.000	3007.000	14310.000	13660.000	54.706%	939.400
X		13090.000	4063.000	0.000	2958.000	13780.000	13280.000	54.892%	916.000
σ		179.400	82.610	0.000	64.000	661.900	417.400	0.447%	30.620
%RSD		1.371	2.033	0.000	2.164	4.804	3.143	0.814	3.343
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	156.400	534.300	1027.000	79960.000	76440.000	21.210	48.050	106.700
2	22:01:32	161.500	549.600	1069.000	82250.000	78210.000	21.750	47.210	107.900
3	22:01:40	160.200	546.100	1120.000	81890.000	77610.000	22.390	46.690	106.800
X		159.400	543.300	1072.000	81370.000	77420.000	21.780	47.320	107.100
σ		2.648	7.974	46.460	1231.000	898.100	0.591	0.685	0.639
%RSD		1.661	1.468	4.332	1.513	1.160	2.711	1.447	0.596
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	109.200	1817.000	1849.000	24.970	2.261	0.225	0.000	126.600
2	22:01:32	111.700	1870.000	1883.000	25.440	2.194	-0.528	0.000	128.000
3	22:01:40	111.700	1868.000	1866.000	25.650	1.898	-4.446	0.000	127.100
X		110.900	1851.000	1866.000	25.350	2.118	-1.583	0.000	127.200
σ		1.463	30.170	16.840	0.349	0.193	2.508	0.000	0.698
%RSD		1.320	1.629	0.902	1.376	9.117	158.400	0.000	0.549
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	0.000	3.340	3.360	47.375%	0.833	0.831	13.330	20.390
2	22:01:32	0.000	3.656	3.591	47.647%	0.877	0.777	14.090	19.980
3	22:01:40	0.000	3.021	3.054	47.790%	0.689	0.802	13.160	20.130
X		0.000	3.339	3.335	47.604%	0.799	0.803	13.530	20.170
σ		0.000	0.318	0.269	0.211%	0.098	0.027	0.498	0.207
%RSD		0.000	9.508	8.073	0.443	12.290	3.395	3.679	1.024
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:01:24	47.713%	292.300	2.297	1.165	76.490	78.160	62.359%	62.379%
2	22:01:32	48.125%	295.000	2.224	1.328	76.600	78.210	63.071%	63.039%
3	22:01:40	48.029%	294.600	2.154	1.282	78.680	76.850	63.018%	63.104%
X		47.956%	294.000	2.225	1.258	77.260	77.740	62.816%	62.841%
σ		0.216%	1.448	0.071	0.084	1.233	0.773	0.397%	0.401%
%RSD		0.449	0.493	3.204	6.704	1.596	0.994	0.632	0.639
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:01:24	0.556	0.481	164.900	156.300	160.500	62.773%		
2	22:01:32	0.540	0.471	166.600	157.500	161.500	63.475%		
3	22:01:40	0.565	0.520	166.800	155.100	160.900	63.083%		
X		0.554	0.491	166.100	156.300	161.000	63.110%		
σ		0.012	0.026	1.056	1.189	0.501	0.352%		
%RSD		2.235	5.328	0.636	0.761	0.311	0.558		

180-37750-D-4-G

11/5/2014 10:07:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	72.263%	0.475	34.480	35.820	0.000	15640.000	3737.000	3727.000
2	22:06:38	73.012%	0.731	25.010	26.410	0.000	15560.000	3654.000	3682.000
3	22:06:46	70.535%	0.606	17.420	19.380	0.000	15870.000	3811.000	3792.000
X		71.937%	0.604	25.640	27.200	0.000	15690.000	3734.000	3734.000
σ		1.270%	0.128	8.549	8.246	0.000	160.400	78.540	55.450
%RSD		1.766	21.130	33.340	30.310	0.000	1.023	2.104	1.485
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	9737.000	3842.000	0.000	2169.000	20780.000	20110.000	55.114%	679.500
2	22:06:38	9565.000	3862.000	0.000	2218.000	21810.000	20960.000	55.205%	700.000
3	22:06:46	9897.000	3900.000	0.000	2238.000	22260.000	21390.000	54.049%	716.300
X		9733.000	3868.000	0.000	2209.000	21620.000	20820.000	54.789%	698.600
σ		166.000	29.280	0.000	35.780	757.900	651.200	0.643%	18.410
%RSD		1.705	0.757	0.000	1.620	3.506	3.128	1.174	2.635
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	125.300	481.900	576.000	60230.000	56760.000	15.390	35.400	93.420
2	22:06:38	127.100	480.500	601.600	59840.000	56280.000	15.280	34.750	95.720
3	22:06:46	129.600	491.800	615.400	60680.000	57650.000	15.890	36.580	95.640
X		127.300	484.700	597.700	60250.000	56900.000	15.520	35.580	94.920
σ		2.168	6.139	19.960	419.900	698.300	0.325	0.925	1.307
%RSD		1.703	1.266	3.340	0.697	1.227	2.091	2.601	1.377
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	99.050	1662.000	1687.000	22.360	1.523	1.373	0.000	208.100
2	22:06:38	95.420	1673.000	1684.000	22.380	2.397	-1.755	0.000	204.100
3	22:06:46	99.140	1690.000	1712.000	22.480	1.981	1.092	0.000	204.400
X		97.870	1675.000	1695.000	22.400	1.967	0.237	0.000	205.500
σ		2.126	14.180	15.560	0.067	0.437	1.731	0.000	2.223
%RSD		2.172	0.847	0.919	0.298	22.220	731.400	0.000	1.082
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	0.000	2.796	2.826	41.839%	0.742	0.696	12.920	18.260
2	22:06:38	0.000	2.788	2.874	42.494%	0.649	0.617	12.360	18.220
3	22:06:46	0.000	2.717	3.006	42.685%	0.600	0.607	12.280	18.390
X		0.000	2.767	2.902	42.339%	0.664	0.640	12.520	18.290
σ		0.000	0.043	0.094	0.444%	0.072	0.049	0.350	0.090
%RSD		0.000	1.562	3.227	1.049	10.860	7.604	2.793	0.491
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:06:30	42.079%	255.500	1.773	0.776	53.690	53.630	57.412%	58.077%
2	22:06:38	43.043%	256.100	1.614	1.002	53.460	50.660	59.094%	59.372%
3	22:06:46	42.932%	260.600	1.970	0.849	53.790	54.330	59.315%	59.842%
X		42.685%	257.400	1.786	0.876	53.650	52.870	58.607%	59.097%
σ		0.527%	2.808	0.179	0.116	0.169	1.950	1.041%	0.914%
%RSD		1.236	1.091	10.000	13.190	0.314	3.688	1.776	1.547
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:06:30	0.444	0.422	136.900	128.300	131.800	50.590%		
2	22:06:38	0.439	0.473	137.200	126.900	131.700	52.030%		
3	22:06:46	0.445	0.444	134.100	126.800	129.400	54.087%		
X		0.443	0.447	136.000	127.300	131.000	52.236%		
σ		0.003	0.025	1.712	0.865	1.330	1.757%		
%RSD		0.719	5.695	1.258	0.679	1.015	3.365		

180-37750-D-4-G SD@5

11/5/2014 10:12:26 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	76.092%	-0.193	22.590	21.310	0.000	2582.000	746.400	741.400
2	22:11:42	72.630%	-0.246	11.900	10.560	0.000	2711.000	781.800	754.900
3	22:11:50	72.543%	-0.181	4.040	6.444	0.000	2789.000	808.800	788.300
X		73.755%	-0.207	12.840	12.770	0.000	2694.000	779.000	761.500
σ		2.024%	0.035	9.308	7.674	0.000	104.200	31.280	24.150
%RSD		2.745	16.840	72.470	60.090	0.000	3.867	4.015	3.171
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	1827.000	822.600	0.000	424.500	3687.000	3634.000	61.297%	125.100
2	22:11:42	1910.000	811.400	0.000	450.300	3958.000	3833.000	59.477%	129.300
3	22:11:50	1946.000	792.800	0.000	467.400	4228.000	4023.000	58.085%	138.500
X		1894.000	809.000	0.000	447.400	3958.000	3830.000	59.620%	130.900
σ		61.130	15.040	0.000	21.620	270.800	194.500	1.611%	6.828
%RSD		3.227	1.859	0.000	4.833	6.843	5.079	2.702	5.214
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	25.050	93.510	103.400	11650.000	10490.000	3.005	6.678	21.390
2	22:11:42	24.990	95.290	110.800	11900.000	10790.000	2.865	6.249	21.390
3	22:11:50	26.310	99.560	114.700	12310.000	11270.000	3.232	6.903	23.020
X		25.450	96.120	109.600	11950.000	10850.000	3.034	6.610	21.930
σ		0.746	3.110	5.727	334.700	393.900	0.185	0.333	0.940
%RSD		2.932	3.235	5.223	2.800	3.631	6.100	5.030	4.284
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	21.770	323.900	324.300	4.276	0.092	-2.354	0.000	37.790
2	22:11:42	22.360	323.200	334.400	4.322	0.389	2.079	0.000	38.600
3	22:11:50	23.560	330.700	338.300	4.414	0.398	-2.119	0.000	38.310
X		22.560	326.000	332.300	4.337	0.293	-0.798	0.000	38.230
σ		0.915	4.151	7.224	0.070	0.174	2.494	0.000	0.411
%RSD		4.054	1.273	2.174	1.615	59.340	312.600	0.000	1.075
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	0.000	0.530	0.578	52.718%	-0.004	0.029	2.499	3.503
2	22:11:42	0.000	0.312	0.459	53.274%	-0.018	0.054	2.432	3.612
3	22:11:50	0.000	0.277	0.358	52.805%	0.048	0.058	2.725	3.505
X		0.000	0.373	0.465	52.932%	0.009	0.047	2.552	3.540
σ		0.000	0.137	0.110	0.299%	0.035	0.016	0.153	0.062
%RSD		0.000	36.740	23.720	0.564	400.300	34.100	6.004	1.756
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:11:34	52.510%	50.900	-0.095	-0.880	10.140	10.980	64.356%	64.819%
2	22:11:42	53.270%	49.850	-0.068	-0.814	10.690	11.220	65.032%	65.514%
3	22:11:50	53.536%	49.190	-0.087	-0.878	10.700	10.630	65.613%	65.428%
X		53.105%	49.980	-0.083	-0.857	10.510	10.940	65.000%	65.254%
σ		0.533%	0.863	0.014	0.038	0.323	0.299	0.629%	0.379%
%RSD		1.003	1.727	16.390	4.382	3.075	2.730	0.968	0.581
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:11:34	0.113	0.082	26.090	25.090	25.430	69.164%		
2	22:11:42	0.089	0.087	26.240	24.690	25.260	69.788%		
3	22:11:50	0.089	0.105	25.830	24.680	25.110	70.238%		
X		0.097	0.092	26.050	24.820	25.270	69.730%		
σ		0.014	0.012	0.210	0.234	0.164	0.539%		
%RSD		14.220	13.080	0.807	0.943	0.650	0.774		

180-37750-B-4-G MS

11/5/2014 10:17:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	64.116%	42.290	935.200	953.700	0.000	61020.000	42050.000	41860.000
2	22:16:45	62.953%	44.700	935.600	953.800	0.000	63080.000	43270.000	43410.000
3	22:16:53	60.000%	45.600	961.900	994.900	0.000	65450.000	44620.000	44770.000
X		62.357%	44.200	944.200	967.500	0.000	63180.000	43310.000	43350.000
σ		2.122%	1.711	15.310	23.720	0.000	2215.000	1288.000	1456.000
%RSD		3.403	3.871	1.621	2.452	0.000	3.506	2.973	3.360
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	25910.000	9937.000	0.000	53800.000	184100.000	198000.000	49.750%	2033.000
2	22:16:45	26920.000	10250.000	0.000	55920.000	195000.000	208000.000	48.264%	2136.000
3	22:16:53	27640.000	10590.000	0.000	56950.000	200800.000	214300.000	47.168%	2177.000
X		26820.000	10260.000	0.000	55560.000	193300.000	206800.000	48.394%	2115.000
σ		869.800	327.200	0.000	1604.000	8477.000	8252.000	1.296%	74.430
%RSD		3.243	3.190	0.000	2.887	4.385	3.991	2.678	3.519
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	606.900	751.200	1166.000	72200.000	69470.000	516.700	548.500	364.000
2	22:16:45	630.900	774.100	1224.000	73820.000	71230.000	524.700	557.900	366.900
3	22:16:53	640.200	789.300	1258.000	75480.000	71980.000	532.800	570.500	370.500
X		626.000	771.600	1216.000	73830.000	70890.000	524.700	559.000	367.100
σ		17.200	19.190	46.360	1643.000	1285.000	8.037	11.080	3.237
%RSD		2.748	2.487	3.813	2.226	1.812	1.532	1.981	0.882
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	386.300	2451.000	2499.000	69.550	13.260	9.972	0.000	2105.000
2	22:16:45	386.400	2472.000	2527.000	68.170	12.830	10.230	0.000	2117.000
3	22:16:53	399.700	2538.000	2536.000	69.740	11.880	5.782	0.000	2122.000
X		390.800	2487.000	2520.000	69.150	12.660	8.662	0.000	2115.000
σ		7.721	45.500	19.300	0.859	0.707	2.497	0.000	8.748
%RSD		1.976	1.830	0.766	1.242	5.584	28.830	0.000	0.414
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	0.000	1201.000	1177.000	36.619%	52.460	53.490	68.650	124.500
2	22:16:45	0.000	1213.000	1175.000	37.165%	52.990	53.110	67.800	124.800
3	22:16:53	0.000	1224.000	1179.000	37.585%	52.240	53.410	70.880	125.500
X		0.000	1212.000	1177.000	37.123%	52.560	53.340	69.110	124.900
σ		0.000	11.460	1.992	0.484%	0.385	0.202	1.587	0.485
%RSD		0.000	0.945	0.169	1.305	0.732	0.378	2.296	0.388
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:16:37	36.935%	2389.000	497.700	498.000	2055.000	2070.000	54.893%	55.121%
2	22:16:45	37.475%	2381.000	500.200	493.000	2026.000	2040.000	56.224%	55.946%
3	22:16:53	37.895%	2381.000	498.300	495.600	2067.000	2068.000	56.240%	56.808%
X		37.435%	2384.000	498.700	495.500	2049.000	2059.000	55.786%	55.959%
σ		0.481%	4.697	1.340	2.471	21.140	16.810	0.773%	0.844%
%RSD		1.285	0.197	0.269	0.499	1.032	0.816	1.386	1.508
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:16:37	51.790	50.620	193.300	184.300	189.100	46.203%		
2	22:16:45	53.150	50.390	196.200	184.700	190.400	46.967%		
3	22:16:53	53.500	50.430	195.100	185.700	190.800	48.336%		
X		52.810	50.480	194.900	184.900	190.100	47.169%		
σ		0.900	0.126	1.431	0.763	0.861	1.081%		
%RSD		1.705	0.249	0.734	0.413	0.453	2.291		

180-37750-B-4-H MSD

11/5/2014 10:22:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	58.810%	45.750	944.400	985.700	0.000	67620.000	46880.000	47120.000
2	22:21:54	57.729%	46.230	943.000	989.800	0.000	69570.000	48090.000	48180.000
3	22:22:02	58.149%	45.760	980.300	997.700	0.000	68410.000	47430.000	47900.000
X		58.229%	45.920	955.900	991.100	0.000	68530.000	47470.000	47730.000
σ		0.545%	0.272	21.150	6.096	0.000	981.100	606.300	552.100
%RSD		0.936	0.592	2.212	0.615	0.000	1.432	1.277	1.157
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	29640.000	10030.000	0.000	54730.000	51370.000	51320.000	49.611%	2021.000
2	22:21:54	30470.000	10250.000	0.000	55940.000	53290.000	53290.000	49.048%	2088.000
3	22:22:02	30280.000	10320.000	0.000	56430.000	54560.000	54050.000	49.533%	2119.000
X		30130.000	10200.000	0.000	55700.000	53070.000	52880.000	49.398%	2076.000
σ		434.300	149.800	0.000	875.300	1606.000	1410.000	0.305%	49.890
%RSD		1.441	1.468	0.000	1.571	3.025	2.666	0.617	2.403
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	660.300	823.000	1086.000	75750.000	72620.000	543.300	568.900	379.700
2	22:21:54	679.700	844.800	1134.000	77010.000	73630.000	547.200	581.000	378.900
3	22:22:02	671.300	835.800	1150.000	76880.000	73730.000	547.000	578.000	381.800
X		670.400	834.600	1123.000	76550.000	73320.000	545.800	576.000	380.200
σ		9.760	11.000	33.500	691.900	612.400	2.212	6.306	1.489
%RSD		1.456	1.318	2.982	0.904	0.835	0.405	1.095	0.392
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	396.300	2564.000	2569.000	66.600	12.760	9.250	0.000	1159.000
2	22:21:54	405.000	2578.000	2612.000	66.020	12.100	9.444	0.000	1171.000
3	22:22:02	401.900	2582.000	2580.000	65.650	10.570	7.164	0.000	1169.000
X		401.100	2575.000	2587.000	66.090	11.810	8.620	0.000	1166.000
σ		4.407	9.349	22.710	0.478	1.122	1.264	0.000	6.713
%RSD		1.099	0.363	0.878	0.724	9.503	14.660	0.000	0.576
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	0.000	1164.000	1148.000	45.410%	52.370	53.340	67.100	123.000
2	22:21:54	0.000	1172.000	1147.000	45.801%	53.100	52.150	65.850	124.100
3	22:22:02	0.000	1165.000	1140.000	46.131%	52.410	52.120	67.430	125.100
X		0.000	1167.000	1145.000	45.781%	52.630	52.540	66.800	124.000
σ		0.000	4.632	4.262	0.361%	0.413	0.696	0.835	1.044
%RSD		0.000	0.397	0.372	0.788	0.785	1.326	1.251	0.842
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:21:46	45.920%	2346.000	479.700	479.500	1982.000	2003.000	62.298%	62.673%
2	22:21:54	46.253%	2343.000	491.800	483.700	2007.000	2000.000	63.689%	63.346%
3	22:22:02	46.122%	2351.000	486.900	485.600	2016.000	2012.000	63.367%	64.286%
X		46.098%	2347.000	486.100	482.900	2001.000	2005.000	63.118%	63.435%
σ		0.168%	3.987	6.041	3.155	17.740	6.287	0.728%	0.810%
%RSD		0.364	0.170	1.243	0.653	0.887	0.314	1.154	1.278
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:21:46	51.520	49.910	196.100	183.100	192.100	60.722%		
2	22:21:54	51.150	49.580	195.600	185.400	191.100	61.907%		
3	22:22:02	50.480	49.390	195.500	184.400	190.800	62.387%		
X		51.050	49.630	195.700	184.300	191.400	61.672%		
σ		0.528	0.263	0.302	1.148	0.666	0.857%		
%RSD		1.034	0.530	0.154	0.623	0.348	1.389		

180-37750-D-4-G PDS

11/5/2014 10:27:43 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	62.941%	45.660	1010.000	1042.000	0.000	66770.000	46560.000	46830.000
2	22:26:59	59.782%	49.930	1049.000	1084.000	0.000	68400.000	47820.000	47990.000
3	22:27:07	59.772%	49.810	1027.000	1096.000	0.000	68740.000	47890.000	48080.000
X		60.832%	48.470	1029.000	1074.000	0.000	67970.000	47420.000	47630.000
σ		1.827%	2.433	19.580	28.260	0.000	1055.000	751.500	692.400
%RSD		3.003	5.019	1.904	2.631	0.000	1.551	1.585	1.454
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	11300.000	15090.000	0.000	57860.000	73550.000	73860.000	49.924%	1769.000
2	22:26:59	11660.000	15550.000	0.000	58790.000	74790.000	76060.000	49.255%	1816.000
3	22:27:07	11670.000	15890.000	0.000	59940.000	76260.000	78230.000	48.951%	1865.000
X		11550.000	15510.000	0.000	58860.000	74870.000	76050.000	49.377%	1817.000
σ		213.200	400.500	0.000	1045.000	1358.000	2184.000	0.498%	47.940
%RSD		1.847	2.582	0.000	1.775	1.814	2.871	1.008	2.639
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	627.000	678.200	1083.000	58870.000	55910.000	567.900	590.100	364.900
2	22:26:59	633.900	692.000	1120.000	59840.000	56570.000	575.300	596.900	369.000
3	22:27:07	630.800	686.300	1145.000	59970.000	56830.000	575.100	596.600	368.400
X		630.600	685.500	1116.000	59560.000	56440.000	572.800	594.500	367.400
σ		3.476	6.945	31.240	600.800	476.400	4.210	3.866	2.211
%RSD		0.551	1.013	2.799	1.009	0.844	0.735	0.650	0.602
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	384.000	2154.000	2178.000	68.110	13.900	7.246	0.000	1423.000
2	22:26:59	396.600	2164.000	2209.000	67.400	12.990	3.734	0.000	1428.000
3	22:27:07	398.700	2166.000	2186.000	67.610	13.780	14.820	0.000	1428.000
X		393.100	2161.000	2191.000	67.710	13.560	8.600	0.000	1427.000
σ		7.948	6.080	16.370	0.365	0.494	5.665	0.000	2.730
%RSD		2.022	0.281	0.747	0.539	3.641	65.880	0.000	0.191
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	0.000	1345.000	1310.000	39.195%	57.640	58.340	65.920	131.300
2	22:26:59	0.000	1353.000	1328.000	39.208%	57.550	59.870	67.350	131.800
3	22:27:07	0.000	1348.000	1310.000	39.846%	58.510	59.350	68.110	129.800
X		0.000	1349.000	1316.000	39.416%	57.900	59.190	67.130	130.900
σ		0.000	3.849	10.050	0.372%	0.529	0.777	1.108	1.050
%RSD		0.000	0.285	0.763	0.945	0.914	1.312	1.650	0.802
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:26:51	39.107%	2574.000	579.400	589.700	2119.000	2155.000	57.626%	57.309%
2	22:26:59	39.953%	2556.000	584.900	585.800	2111.000	2138.000	58.075%	58.091%
3	22:27:07	40.085%	2559.000	585.900	581.800	2132.000	2126.000	59.241%	59.049%
X		39.715%	2563.000	583.400	585.800	2121.000	2140.000	58.314%	58.150%
σ		0.531%	9.796	3.520	3.940	10.830	14.560	0.834%	0.871%
%RSD		1.336	0.382	0.604	0.672	0.511	0.681	1.430	1.499
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:26:51	54.710	53.830	150.400	145.600	147.400	50.003%		
2	22:26:59	56.190	53.940	152.400	148.100	148.500	50.610%		
3	22:27:07	55.460	54.160	155.800	147.500	150.500	51.203%		
X		55.450	53.980	152.900	147.100	148.800	50.605%		
σ		0.737	0.169	2.747	1.295	1.557	0.600%		
%RSD		1.329	0.313	1.797	0.881	1.046	1.186		

180-37750-B-8-E

11/5/2014 10:32:48 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	53.796%	2.954	95.200	97.510	0.000	39470.000	14730.000	14770.000
2	22:32:03	51.610%	3.502	89.480	94.330	0.000	40970.000	15090.000	15140.000
3	22:32:11	49.125%	3.196	85.540	94.840	0.000	42720.000	15990.000	15830.000
X		51.510%	3.217	90.070	95.560	0.000	41060.000	15270.000	15250.000
σ		2.337%	0.274	4.858	1.707	0.000	1626.000	650.900	539.100
%RSD		4.538	8.529	5.394	1.787	0.000	3.960	4.263	3.535
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	41000.000	4948.000	0.000	6914.000	941000.000	969100.000	47.678%	1230.000
2	22:32:03	42650.000	5286.000	0.000	7061.000	974500.000	1003000.000	47.843%	1280.000
3	22:32:11	44260.000	5552.000	0.000	7220.000	1000000.000	1033000.000	47.449%	1312.000
X		42630.000	5262.000	0.000	7065.000	971900.000	1002000.000	47.657%	1274.000
σ		1628.000	302.800	0.000	153.200	29640.000	32120.000	0.198%	41.370
%RSD		3.819	5.755	0.000	2.168	3.049	3.206	0.415	3.247
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	493.200	1870.000	3499.000	285300.000	286600.000	59.920	144.900	454.400
2	22:32:03	507.800	1908.000	3605.000	289000.000	290400.000	59.280	143.200	458.000
3	22:32:11	513.400	1934.000	3702.000	295000.000	294600.000	59.990	147.200	471.200
X		504.800	1904.000	3602.000	289800.000	290500.000	59.730	145.100	461.200
σ		10.430	32.280	101.400	4877.000	4016.000	0.395	2.011	8.825
%RSD		2.066	1.696	2.816	1.683	1.382	0.660	1.385	1.914
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	485.100	6357.000	6442.000	84.300	8.001	11.790	0.000	5894.000
2	22:32:03	489.000	6398.000	6453.000	85.950	8.807	6.166	0.000	5907.000
3	22:32:11	495.300	6507.000	6552.000	85.840	10.560	9.557	0.000	5927.000
X		489.800	6421.000	6483.000	85.360	9.122	9.172	0.000	5909.000
σ		5.114	77.600	60.720	0.925	1.308	2.832	0.000	16.660
%RSD		1.044	1.209	0.937	1.084	14.330	30.880	0.000	0.282
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	0.000	16.670	15.860	45.461%	3.482	3.393	43.560	68.200
2	22:32:03	0.000	16.330	15.080	46.576%	3.276	3.528	41.630	67.280
3	22:32:11	0.000	15.670	14.580	47.425%	3.351	3.596	44.170	66.740
X		0.000	16.230	15.180	46.487%	3.370	3.506	43.120	67.410
σ		0.000	0.511	0.643	0.985%	0.104	0.103	1.326	0.739
%RSD		0.000	3.149	4.238	2.119	3.094	2.942	3.076	1.096
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:31:55	46.595%	1011.000	5.749	4.952	335.600	334.600	63.023%	63.204%
2	22:32:03	47.788%	1010.000	5.748	5.355	339.400	330.100	64.231%	64.517%
3	22:32:11	48.427%	1008.000	5.950	5.073	337.300	330.400	65.370%	66.050%
X		47.603%	1010.000	5.816	5.127	337.400	331.700	64.208%	64.590%
σ		0.930%	1.206	0.117	0.207	1.933	2.560	1.174%	1.425%
%RSD		1.953	0.120	2.003	4.031	0.573	0.772	1.828	2.205
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:31:55	1.415	1.499	581.600	550.100	569.900	59.906%		
2	22:32:03	1.359	1.344	582.500	549.700	571.300	60.601%		
3	22:32:11	1.570	1.281	580.300	543.400	564.900	62.044%		
X		1.448	1.375	581.500	547.700	568.700	60.850%		
σ		0.109	0.112	1.103	3.755	3.353	1.091%		
%RSD		7.558	8.179	0.190	0.686	0.590	1.793		

180-37750-B-9-E

11/5/2014 10:37:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	65.044%	5.684	115.400	120.100	0.000	53360.000	26440.000	26270.000
2	22:37:09	62.146%	6.146	107.900	114.900	0.000	55540.000	27440.000	27200.000
3	22:37:17	61.895%	6.351	102.300	115.100	0.000	55480.000	27350.000	27400.000
X		63.028%	6.060	108.500	116.700	0.000	54790.000	27080.000	26960.000
σ		1.750%	0.342	6.551	2.956	0.000	1241.000	554.000	605.100
%RSD		2.777	5.643	6.037	2.533	0.000	2.265	2.046	2.244
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	69660.000	6254.000	0.000	11590.000	23400.000	22860.000	58.326%	2120.000
2	22:37:09	72520.000	6860.000	0.000	11890.000	23950.000	23730.000	57.551%	2195.000
3	22:37:17	72550.000	6503.000	0.000	11960.000	24450.000	24160.000	57.737%	2225.000
X		71580.000	6539.000	0.000	11810.000	23930.000	23580.000	57.871%	2180.000
σ		1657.000	304.500	0.000	198.900	527.200	660.800	0.405%	53.990
%RSD		2.315	4.657	0.000	1.684	2.203	2.802	0.699	2.477
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	815.400	4425.000	3088.000	509000.000	499600.000	90.600	266.300	990.700
2	22:37:09	834.000	4519.000	3222.000	518700.000	508600.000	92.080	267.400	1003.000
3	22:37:17	830.300	4509.000	3285.000	516000.000	510300.000	92.300	266.300	998.700
X		826.600	4484.000	3198.000	514600.000	506200.000	91.660	266.700	997.400
σ		9.862	51.360	100.800	4999.000	5749.000	0.923	0.641	6.074
%RSD		1.193	1.145	3.152	0.971	1.136	1.007	0.240	0.609
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	1040.000	9529.000	9655.000	134.000	16.720	17.400	0.000	315.900
2	22:37:09	1035.000	9649.000	9696.000	133.400	17.580	19.080	0.000	313.500
3	22:37:17	1046.000	9583.000	9684.000	132.600	18.380	17.500	0.000	310.000
X		1040.000	9587.000	9679.000	133.300	17.560	17.990	0.000	313.200
σ		5.146	59.940	21.050	0.675	0.831	0.945	0.000	2.963
%RSD		0.495	0.625	0.218	0.507	4.733	5.250	0.000	0.946
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	0.000	31.410	30.740	42.619%	9.142	8.987	45.790	106.800
2	22:37:09	0.000	30.990	30.410	43.410%	9.233	9.217	47.300	104.200
3	22:37:17	0.000	30.860	30.310	43.853%	8.964	9.110	45.730	106.100
X		0.000	31.090	30.490	43.294%	9.113	9.105	46.270	105.700
σ		0.000	0.289	0.225	0.625%	0.137	0.115	0.893	1.345
%RSD		0.000	0.931	0.739	1.444	1.499	1.261	1.929	1.272
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:37:01	42.611%	2435.000	14.050	13.740	289.000	290.500	62.000%	61.218%
2	22:37:09	42.712%	2450.000	14.440	13.230	288.900	290.500	62.698%	61.947%
3	22:37:17	43.621%	2422.000	14.450	13.280	293.800	294.100	62.951%	63.293%
X		42.981%	2435.000	14.310	13.420	290.600	291.700	62.550%	62.153%
σ		0.556%	13.930	0.225	0.278	2.807	2.104	0.493%	1.053%
%RSD		1.294	0.572	1.573	2.070	0.966	0.721	0.787	1.694
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:37:01	2.668	2.574	1228.000	1130.000	1184.000	48.035%		
2	22:37:09	2.557	2.533	1215.000	1124.000	1177.000	49.791%		
3	22:37:17	2.589	2.661	1215.000	1129.000	1182.000	50.626%		
X		2.605	2.590	1219.000	1128.000	1181.000	49.484%		
σ		0.057	0.065	7.724	2.955	3.765	1.323%		
%RSD		2.182	2.526	0.633	0.262	0.319	2.673		



MB 180-123365/1-A

11/5/2014 10:47:01 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	84.797%	-0.365	16.870	18.460	0.000	-142.000	3.881	-0.087
2	22:46:17	84.130%	-0.370	7.229	6.757	0.000	-141.600	3.649	-3.432
3	22:46:25	83.223%	-0.367	-1.590	0.707	0.000	-134.200	2.845	-3.204
X		84.050%	-0.367	7.502	8.641	0.000	-139.300	3.458	-2.241
σ		0.790%	0.002	9.231	9.025	0.000	4.393	0.543	1.869
%RSD		0.940	0.599	123.100	104.400	0.000	3.153	15.710	83.410
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	10.950	157.600	0.000	61.690	35.830	50.090	70.486%	0.521
2	22:46:17	12.340	106.500	0.000	72.530	47.130	53.840	68.799%	0.307
3	22:46:25	12.680	75.080	0.000	68.730	49.080	49.090	67.307%	0.404
X		11.990	113.100	0.000	67.650	44.010	51.010	68.864%	0.411
σ		0.917	41.640	0.000	5.500	7.153	2.505	1.591%	0.107
%RSD		7.645	36.830	0.000	8.130	16.250	4.910	2.310	26.110
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	2.641	1.532	0.599	57.840	41.520	-0.048	-0.004	2.460
2	22:46:17	2.516	1.894	0.531	53.130	39.710	-0.075	0.024	2.322
3	22:46:25	2.822	1.858	0.611	48.480	33.100	-0.012	0.043	2.488
X		2.659	1.761	0.581	53.150	38.110	-0.045	0.021	2.423
σ		0.154	0.199	0.043	4.680	4.432	0.032	0.024	0.089
%RSD		5.793	11.320	7.435	8.806	11.630	70.050	112.300	3.667
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	2.570	4.894	5.402	0.207	-0.067	-0.183	0.000	0.259
2	22:46:17	2.617	4.313	4.465	0.143	-0.043	-2.990	0.000	0.182
3	22:46:25	2.365	4.668	4.433	0.138	-0.016	0.851	0.000	0.198
X		2.517	4.625	4.767	0.163	-0.042	-0.774	0.000	0.213
σ		0.134	0.293	0.550	0.038	0.025	1.988	0.000	0.041
%RSD		5.328	6.341	11.550	23.530	60.160	256.700	0.000	19.170
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	67.342%	0.167	0.247	49.763%	-0.164	-0.070	0.017	0.025
2	22:46:17	69.624%	0.087	0.154	50.352%	-0.120	-0.096	-0.002	0.008
3	22:46:25	69.967%	0.061	0.057	51.274%	-0.141	-0.072	-0.002	0.031
X		68.977%	0.105	0.153	50.463%	-0.141	-0.079	0.005	0.021
σ		1.427%	0.055	0.095	0.761%	0.022	0.015	0.011	0.012
%RSD		2.069	52.420	62.160	1.509	15.660	18.380	237.500	55.390
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:46:09	48.161%	1.069	-0.411	-1.188	0.153	0.108	61.947%	61.730%
2	22:46:17	49.046%	0.593	-0.351	-1.190	0.098	0.150	62.405%	62.165%
3	22:46:25	49.244%	0.585	-0.386	-1.208	0.070	0.047	63.926%	62.819%
X		48.817%	0.749	-0.383	-1.195	0.107	0.102	62.760%	62.238%
σ		0.576%	0.277	0.030	0.011	0.042	0.052	1.036%	0.548%
%RSD		1.181	37.010	7.812	0.897	39.300	50.960	1.651	0.881
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:46:09	0.030	0.044	0.182	0.193	0.222	52.433%		
2	22:46:17	0.040	0.046	0.206	0.248	0.220	53.309%		
3	22:46:25	0.045	0.038	0.214	0.260	0.201	55.719%		
X		0.038	0.042	0.200	0.234	0.214	53.820%		
σ		0.008	0.004	0.016	0.036	0.012	1.702%		
%RSD		20.240	9.480	8.224	15.430	5.405	3.162		

CCV 1369903 11/5/2014 10:52:06 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	80.791%	93.240	126.600	121.700	0.000	48670.000	44280.000	44310.000
2	22:51:22	81.097%	96.050	111.400	116.700	0.000	49020.000	44570.000	44840.000
3	22:51:30	79.619%	101.500	111.300	113.600	0.000	49560.000	44920.000	45160.000
X		80.502%	96.920%	116.451%	117.368%	0.000	98.165%	89.182%	89.538%
σ		0.780%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.969	4.315	7.566	3.486	0.000	0.916	0.714	0.968
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	445.800	6122.000	0.000	56910.000	48210.000	49540.000	68.903%	102.600
2	22:51:22	452.200	5857.000	0.000	59290.000	50840.000	51730.000	67.939%	104.000
3	22:51:30	455.600	5959.000	0.000	60560.000	52680.000	53290.000	67.430%	109.700
X		90.237%	119.589%	0.000	117.843%	101.150%	103.041%	68.091%	105.455%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.749%	n/a
%RSD		1.106	2.231	0.000	3.144	4.444	3.648	1.099	3.573
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	94.250	97.090	492.500	26030.000	23330.000	97.670	99.090	103.200
2	22:51:22	96.150	97.120	517.700	26220.000	23170.000	97.690	100.100	100.200
3	22:51:30	97.220	98.620	533.400	26350.000	23380.000	98.310	98.500	103.300
X		95.871%	97.609%	102.905%	104.811%	93.177%	97.892%	99.218%	102.226%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.572	0.900	4.004	0.621	0.493	0.371	0.794	1.725
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	104.600	98.500	100.600	98.840	96.050	101.100	0.000	95.860
2	22:51:22	102.200	98.290	98.320	97.460	95.160	92.600	0.000	94.480
3	22:51:30	102.000	98.560	99.500	98.370	95.850	93.830	0.000	95.570
X		102.913%	98.452%	99.473%	98.222%	95.685%	95.842%	0.000	95.303%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.439	0.148	1.144	0.712	0.489	4.791	0.000	0.764
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	68.147%	104.200	103.800	57.230%	103.600	104.300	101.900	106.000
2	22:51:22	70.286%	103.000	104.200	57.193%	103.100	104.000	102.400	105.000
3	22:51:30	69.764%	108.600	108.200	57.682%	102.600	103.800	103.100	106.800
X		69.399%	105.277%	105.392%	57.368%	103.107%	104.017%	102.449%	105.943%
σ		1.115%	n/a	n/a	0.272%	n/a	n/a	n/a	n/a
%RSD		1.607	2.832	2.289	0.475	0.505	0.229	0.616	0.855
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:51:14	56.422%	104.600	99.290	99.260	100.000	98.930	66.702%	66.864%
2	22:51:22	56.571%	103.600	102.500	102.200	101.700	99.860	67.325%	67.073%
3	22:51:30	56.615%	104.600	103.200	102.500	101.600	99.180	67.170%	67.651%
X		56.536%	104.266%	101.662%	101.323%	101.109%	99.324%	67.066%	67.196%
σ		0.101%	n/a	n/a	n/a	n/a	n/a	0.325%	0.408%
%RSD		0.179	0.557	2.060	1.771	0.944	0.481	0.484	0.607
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:51:14	105.300	104.100	105.700	104.400	105.500	67.256%		
2	22:51:22	106.600	104.200	106.800	105.900	106.200	67.551%		
3	22:51:30	106.200	105.800	106.900	106.700	107.100	67.607%		
X		106.032%	104.718%	106.433%	105.658%	106.271%	67.471%		
σ		n/a	n/a	n/a	n/a	n/a	0.189%		
%RSD		0.660	0.933	0.632	1.110	0.767	0.280		

CCB7 11/5/2014 11:01:13 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	91.371%	-0.394	12.730	14.760	0.000	-142.900	14.940	7.869
2	23:00:29	91.894%	-0.338	5.256	3.527	0.000	-140.200	18.280	11.240
3	23:00:36	91.717%	-0.389	-2.403	-1.424	0.000	-133.100	24.820	10.860
X		91.661%	-0.373	5.193	5.622	0.000	-138.700	19.350	9.993
σ		0.266%	0.031	7.565	8.295	0.000	5.060	5.027	1.849
%RSD		0.290	8.306	145.700	147.500	0.000	3.647	25.980	18.510
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	7.199	121.900	0.000	63.770	32.670	20.900	76.064%	0.161
2	23:00:29	9.135	76.880	0.000	83.190	39.820	22.410	73.910%	0.197
3	23:00:36	8.488	51.920	0.000	82.760	28.530	26.290	73.917%	0.357
X		8.274	83.550	0.000	76.570	33.670	23.200	74.630%	0.238
σ		0.986	35.440	0.000	11.090	5.714	2.777	1.242%	0.104
%RSD		11.910	42.420	0.000	14.480	16.970	11.970	1.664	43.760
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	0.024	0.202	0.335	29.830	14.410	-0.072	-0.037	1.099
2	23:00:29	0.278	0.251	0.440	33.870	20.200	-0.043	0.042	1.553
3	23:00:36	0.167	0.236	0.379	34.450	11.640	-0.023	-0.009	1.323
X		0.156	0.230	0.385	32.720	15.420	-0.046	-0.001	1.325
σ		0.127	0.025	0.053	2.518	4.367	0.025	0.040	0.227
%RSD		81.330	10.940	13.670	7.696	28.320	53.390	3044.000	17.130
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	1.179	0.364	0.486	-0.007	-0.034	-4.175	0.000	0.266
2	23:00:29	1.242	0.107	0.313	0.068	-0.011	-6.325	0.000	0.266
3	23:00:36	1.102	0.275	0.438	-0.018	-0.012	-1.912	0.000	0.251
X		1.174	0.249	0.412	0.014	-0.019	-4.137	0.000	0.261
σ		0.070	0.130	0.089	0.047	0.013	2.207	0.000	0.008
%RSD		5.991	52.340	21.660	332.500	69.220	53.330	0.000	3.219
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	77.000%	0.176	0.172	72.180%	-0.152	-0.085	0.061	0.011
2	23:00:29	77.908%	0.134	0.127	73.384%	-0.106	-0.069	-0.002	0.000
3	23:00:36	78.743%	0.094	0.165	73.942%	-0.126	-0.075	0.023	0.041
X		77.884%	0.135	0.155	73.169%	-0.128	-0.077	0.027	0.017
σ		0.872%	0.041	0.024	0.901%	0.023	0.008	0.032	0.021
%RSD		1.119	30.710	15.780	1.231	18.030	10.700	116.300	121.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:00:21	73.445%	-0.675	-0.256	-1.107	0.158	0.119	75.750%	75.615%
2	23:00:29	74.591%	-0.736	-0.248	-1.122	0.136	0.138	77.017%	76.455%
3	23:00:36	75.301%	-0.648	-0.270	-1.090	0.190	0.137	77.830%	76.956%
X		74.446%	-0.686	-0.258	-1.106	0.161	0.131	76.866%	76.342%
σ		0.937%	0.045	0.011	0.016	0.027	0.011	1.048%	0.678%
%RSD		1.258	6.524	4.380	1.437	16.910	8.142	1.364	0.888
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:00:21	0.021	0.024	0.241	0.272	0.236	77.824%		
2	23:00:29	0.042	0.039	0.273	0.251	0.254	80.105%		
3	23:00:36	0.068	0.047	0.252	0.252	0.255	81.837%		
X		0.044	0.037	0.255	0.259	0.248	79.922%		
σ		0.023	0.012	0.016	0.012	0.011	2.013%		
%RSD		53.420	32.220	6.381	4.555	4.309	2.518		

LCS 180-123365/2-A

11/5/2014 11:06:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	74.681%	41.170	889.700	913.700	0.000	48650.000	40630.000	41140.000
2	23:05:37	72.404%	43.540	927.100	946.800	0.000	49810.000	41920.000	42290.000
3	23:05:45	69.228%	45.570	964.300	975.100	0.000	51270.000	43020.000	43110.000
X		72.104%	43.430	927.100	945.200	0.000	49910.000	41860.000	42180.000
σ		2.739%	2.202	37.320	30.690	0.000	1312.000	1195.000	989.500
%RSD		3.798	5.070	4.026	3.247	0.000	2.629	2.855	2.346
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	1707.000	9736.000	0.000	53400.000	49790.000	49470.000	56.565%	1012.000
2	23:05:37	1764.000	10130.000	0.000	55110.000	51820.000	51690.000	55.770%	1050.000
3	23:05:45	1806.000	10400.000	0.000	56100.000	52380.000	52870.000	55.570%	1074.000
X		1759.000	10090.000	0.000	54870.000	51330.000	51340.000	55.969%	1045.000
σ		49.480	332.800	0.000	1364.000	1364.000	1725.000	0.526%	31.260
%RSD		2.813	3.299	0.000	2.486	2.657	3.360	0.941	2.990
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	480.900	199.400	475.300	986.400	1014.000	481.300	483.200	238.700
2	23:05:37	489.000	204.000	494.200	994.600	996.600	492.400	488.500	238.900
3	23:05:45	494.200	204.700	501.100	994.300	1042.000	488.200	486.600	241.900
X		488.000	202.700	490.200	991.800	1017.000	487.300	486.100	239.800
σ		6.694	2.893	13.340	4.638	22.700	5.612	2.696	1.778
%RSD		1.371	1.427	2.721	0.468	2.232	1.152	0.554	0.741
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	246.100	458.700	456.800	36.090	9.206	11.370	0.000	868.500
2	23:05:37	249.000	452.600	457.200	36.120	8.725	7.648	0.000	855.900
3	23:05:45	248.300	460.900	453.100	35.950	9.161	10.200	0.000	860.500
X		247.800	457.400	455.700	36.060	9.031	9.741	0.000	861.600
σ		1.488	4.253	2.264	0.089	0.266	1.905	0.000	6.343
%RSD		0.600	0.930	0.497	0.246	2.941	19.550	0.000	0.736
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	64.097%	1049.000	1086.000	46.998%	51.190	52.120	52.630	102.400
2	23:05:37	64.532%	1049.000	1091.000	45.831%	52.360	51.530	51.630	104.700
3	23:05:45	63.834%	1054.000	1103.000	44.988%	52.560	52.840	52.570	106.200
X		64.154%	1051.000	1093.000	45.939%	52.040	52.160	52.280	104.400
σ		0.352%	2.938	8.418	1.010%	0.741	0.657	0.564	1.899
%RSD		0.549	0.280	0.770	2.198	1.424	1.260	1.079	1.819
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:05:29	46.512%	2084.000	526.100	529.200	1981.000	1984.000	61.273%	60.978%
2	23:05:37	45.490%	2101.000	529.700	525.800	1982.000	1969.000	61.113%	61.649%
3	23:05:45	43.955%	2112.000	530.200	528.600	1991.000	1997.000	60.353%	60.229%
X		45.319%	2099.000	528.600	527.900	1985.000	1983.000	60.913%	60.952%
σ		1.287%	14.170	2.244	1.851	5.820	13.820	0.492%	0.710%
%RSD		2.840	0.675	0.425	0.351	0.293	0.697	0.807	1.165
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:05:29	52.440	51.210	21.320	22.020	21.460	57.939%		
2	23:05:37	53.500	51.780	21.540	21.640	21.790	54.465%		
3	23:05:45	54.440	52.760	22.020	22.310	22.150	51.819%		
X		53.460	51.920	21.630	21.990	21.800	54.741%		
σ		0.999	0.781	0.362	0.338	0.346	3.069%		
%RSD		1.868	1.504	1.672	1.537	1.586	5.606		

180-37949-A-2-D@10

11/5/2014 11:11:27 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	75.940%	1.675	4218.000	4214.000	0.000	3351.000	2600.000	2558.000
2	23:10:43	75.703%	1.905	4359.000	4307.000	0.000	3390.000	2645.000	2603.000
3	23:10:51	73.939%	2.092	4507.000	4454.000	0.000	3483.000	2647.000	2648.000
X		75.194%	1.891	4361.000	4325.000	0.000	3408.000	2631.000	2603.000
σ		1.093%	0.209	145.000	121.000	0.000	67.620	26.750	44.990
%RSD		1.454	11.040	3.324	2.798	0.000	1.984	1.017	1.728
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	5214.000	509.800	0.000	8059.000	155000.000	168400.000	64.954%	462.200
2	23:10:43	5311.000	476.900	0.000	8453.000	164900.000	178100.000	63.471%	487.800
3	23:10:51	5405.000	461.500	0.000	8723.000	169500.000	185000.000	62.500%	515.800
X		5310.000	482.800	0.000	8412.000	163100.000	177200.000	63.642%	488.600
σ		95.410	24.660	0.000	333.900	7423.000	8310.000	1.236%	26.810
%RSD		1.797	5.107	0.000	3.970	4.550	4.690	1.942	5.486
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	68.540	18.810	35.020	15680.000	14080.000	6.125	18.820	26.930
2	23:10:43	70.020	19.410	36.480	16040.000	14450.000	6.399	19.310	27.180
3	23:10:51	70.990	19.070	38.350	16170.000	14390.000	6.433	18.630	27.420
X		69.850	19.100	36.620	15970.000	14310.000	6.319	18.920	27.180
σ		1.235	0.301	1.669	254.100	196.400	0.169	0.352	0.250
%RSD		1.768	1.577	4.559	1.591	1.373	2.674	1.859	0.920
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	27.530	143.400	140.100	32.430	51.970	59.040	0.000	2358.000
2	23:10:43	26.890	139.200	143.100	32.010	53.990	54.380	0.000	2344.000
3	23:10:51	27.930	144.300	140.400	31.560	55.150	55.440	0.000	2339.000
X		27.450	142.300	141.200	32.000	53.700	56.290	0.000	2347.000
σ		0.522	2.684	1.648	0.434	1.612	2.442	0.000	10.070
%RSD		1.902	1.886	1.167	1.357	3.002	4.338	0.000	0.429
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	72.894%	19.960	20.720	49.241%	-0.046	0.025	16.400	17.280
2	23:10:43	75.245%	19.720	20.550	50.325%	-0.024	0.022	16.860	17.630
3	23:10:51	75.427%	19.540	20.390	51.132%	-0.039	0.015	16.720	16.970
X		74.522%	19.740	20.550	50.233%	-0.036	0.021	16.660	17.300
σ		1.413%	0.212	0.164	0.949%	0.011	0.005	0.236	0.331
%RSD		1.895	1.075	0.795	1.889	29.720	22.860	1.418	1.916
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:10:36	50.494%	4.825	0.960	0.068	67.820	65.600	62.435%	62.220%
2	23:10:43	51.243%	4.353	0.909	0.015	67.470	66.970	63.572%	64.244%
3	23:10:51	52.168%	3.680	0.702	0.028	68.990	67.890	64.665%	64.525%
X		51.301%	4.286	0.857	0.037	68.090	66.820	63.558%	63.663%
σ		0.839%	0.575	0.137	0.028	0.797	1.148	1.115%	1.258%
%RSD		1.635	13.420	15.970	74.800	1.170	1.718	1.754	1.975
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:10:36	2.727	2.597	32.510	30.210	31.110	62.575%		
2	23:10:43	2.600	2.604	32.870	29.670	31.070	63.974%		
3	23:10:51	2.604	2.520	32.210	30.100	31.130	65.282%		
X		2.644	2.573	32.530	30.000	31.100	63.943%		
σ		0.072	0.047	0.333	0.287	0.030	1.354%		
%RSD		2.737	1.814	1.022	0.957	0.098	2.117		

180-37949-A-4-D@10

11/5/2014 11:16:30 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	77.450%	-0.241	10120.000	10180.000	0.000	15320.000	18160.000	18090.000
2	23:15:45	78.204%	-0.332	10220.000	10220.000	0.000	15630.000	18450.000	18410.000
3	23:15:52	76.964%	-0.266	10470.000	10590.000	0.000	15900.000	18590.000	18610.000
X		77.539%	-0.280	10270.000	10330.000	0.000	15610.000	18400.000	18370.000
σ		0.625%	0.047	179.800	224.800	0.000	293.600	219.900	263.300
%RSD		0.806	16.770	1.751	2.176	0.000	1.880	1.195	1.433
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	32.530	145.700	0.000	8764.000	190300.000	205700.000	68.526%	0.770
2	23:15:45	36.860	94.200	0.000	9248.000	202800.000	219400.000	66.392%	0.948
3	23:15:52	36.660	66.230	0.000	9453.000	209000.000	225800.000	66.241%	1.099
X		35.350	102.000	0.000	9155.000	200700.000	217000.000	67.053%	0.939
σ		2.448	40.300	0.000	353.700	9504.000	10290.000	1.278%	0.165
%RSD		6.925	39.500	0.000	3.863	4.735	4.744	1.906	17.560
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	1.900	5.963	1.529	24.470	420.800	0.052	0.062	2.529
2	23:15:45	2.085	5.832	1.587	20.650	398.300	0.073	0.280	2.255
3	23:15:52	2.742	6.078	1.598	18.570	401.900	0.082	0.221	2.437
X		2.242	5.958	1.572	21.230	407.000	0.069	0.188	2.407
σ		0.443	0.123	0.037	2.991	12.110	0.015	0.113	0.139
%RSD		19.730	2.068	2.366	14.090	2.976	22.110	60.170	5.780
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	2.667	3.315	3.772	5.507	123.100	133.400	0.000	3297.000
2	23:15:45	2.507	3.548	3.064	4.981	113.600	108.900	0.000	2774.000
3	23:15:52	2.787	3.653	3.509	5.478	126.500	126.500	0.000	3280.000
X		2.653	3.505	3.448	5.322	121.000	122.900	0.000	3117.000
σ		0.140	0.173	0.358	0.296	6.693	12.640	0.000	297.300
%RSD		5.292	4.945	10.380	5.564	5.529	10.290	0.000	9.538
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	71.597%	0.900	0.871	54.455%	-0.163	-0.076	29.120	27.510
2	23:15:45	85.619%	0.615	0.635	54.330%	-0.167	-0.052	28.060	27.850
3	23:15:52	71.857%	0.727	0.598	52.972%	-0.151	-0.078	27.400	28.850
X		76.358%	0.748	0.701	53.919%	-0.160	-0.069	28.200	28.070
σ		8.022%	0.143	0.148	0.823%	0.008	0.014	0.868	0.696
%RSD		10.505	19.180	21.150	1.526	5.211	20.650	3.078	2.481
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:15:37	54.357%	0.114	-0.276	-1.136	12.270	11.940	65.230%	65.486%
2	23:15:45	54.116%	-0.013	-0.307	-1.166	11.880	12.280	65.112%	65.746%
3	23:15:52	53.318%	0.051	-0.333	-1.097	11.060	12.180	65.653%	65.848%
X		53.931%	0.051	-0.305	-1.133	11.740	12.130	65.332%	65.693%
σ		0.544%	0.064	0.028	0.034	0.617	0.175	0.285%	0.187%
%RSD		1.008	126.100	9.293	3.027	5.260	1.439	0.436	0.284
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:15:37	0.087	0.087	0.128	0.163	0.125	66.577%		
2	23:15:45	0.044	0.092	0.118	0.085	0.118	65.888%		
3	23:15:52	0.110	0.075	0.146	0.089	0.120	63.175%		
X		0.080	0.085	0.131	0.112	0.121	65.213%		
σ		0.034	0.009	0.014	0.044	0.004	1.799%		
%RSD		41.880	10.640	10.860	39.100	3.115	2.758		

180-37949-A-5-D@10

11/5/2014 11:21:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	81.874%	-0.363	4239.000	4177.000	0.000	35350.000	5729.000	5666.000
2	23:20:51	81.837%	-0.286	4382.000	4289.000	0.000	35980.000	5748.000	5748.000
3	23:20:58	83.263%	-0.247	4244.000	4184.000	0.000	35690.000	5795.000	5768.000
X		82.325%	-0.299	4288.000	4217.000	0.000	35670.000	5757.000	5727.000
σ		0.813%	0.059	80.990	62.290	0.000	310.800	34.030	53.890
%RSD		0.988	19.750	1.889	1.477	0.000	0.871	0.591	0.941
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	10.170	105.300	0.000	1075.000	113900.000	123600.000	67.106%	0.170
2	23:20:51	10.070	64.080	0.000	1133.000	119700.000	130200.000	65.905%	0.296
3	23:20:58	11.920	43.320	0.000	1127.000	121700.000	131800.000	65.320%	0.269
X		10.720	70.890	0.000	1112.000	118500.000	128500.000	66.110%	0.245
σ		1.042	31.520	0.000	32.030	4046.000	4343.000	0.910%	0.066
%RSD		9.719	44.470	0.000	2.882	3.415	3.379	1.377	26.990
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	1.603	1.967	0.539	3.854	229.900	-0.003	0.230	1.749
2	23:20:51	2.005	1.861	0.548	3.736	207.800	0.003	0.188	1.830
3	23:20:58	1.698	2.104	0.563	3.674	233.200	0.052	0.122	1.917
X		1.769	1.977	0.550	3.755	223.600	0.017	0.180	1.832
σ		0.210	0.122	0.012	0.092	13.820	0.030	0.055	0.084
%RSD		11.890	6.168	2.233	2.442	6.180	176.200	30.310	4.561
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	1.792	4.116	4.601	2.857	28.230	29.120	0.000	1938.000
2	23:20:51	1.969	4.890	4.483	3.006	29.610	28.500	0.000	1907.000
3	23:20:58	2.114	4.889	5.591	3.013	28.610	31.680	0.000	1941.000
X		1.958	4.632	4.892	2.959	28.820	29.770	0.000	1929.000
σ		0.161	0.447	0.608	0.088	0.716	1.684	0.000	19.040
%RSD		8.231	9.643	12.430	2.976	2.484	5.658	0.000	0.987
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	66.948%	0.283	0.244	48.908%	-0.160	-0.100	16.390	16.220
2	23:20:51	69.292%	0.220	0.192	50.797%	-0.173	-0.113	16.380	17.000
3	23:20:58	69.548%	0.143	0.194	51.998%	-0.158	-0.097	16.270	16.060
X		68.596%	0.215	0.210	50.568%	-0.163	-0.103	16.350	16.430
σ		1.433%	0.070	0.030	1.557%	0.008	0.008	0.065	0.501
%RSD		2.088	32.460	14.260	3.080	5.033	8.136	0.397	3.047
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:20:43	49.513%	-0.363	-0.425	-1.186	6.792	7.320	61.950%	61.832%
2	23:20:51	50.830%	-0.487	-0.405	-1.243	7.786	6.444	63.622%	63.272%
3	23:20:58	51.902%	-0.576	-0.415	-1.207	7.108	6.876	64.229%	64.313%
X		50.748%	-0.476	-0.415	-1.212	7.229	6.880	63.267%	63.139%
σ		1.197%	0.107	0.010	0.029	0.508	0.438	1.180%	1.246%
%RSD		2.358	22.480	2.369	2.378	7.024	6.361	1.865	1.973
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:20:43	0.037	0.026	0.078	0.111	0.094	57.845%		
2	23:20:51	0.035	0.037	0.082	0.084	0.090	60.587%		
3	23:20:58	0.031	0.036	0.098	0.061	0.078	62.411%		
X		0.034	0.033	0.086	0.085	0.088	60.281%		
σ		0.003	0.006	0.011	0.025	0.008	2.299%		
%RSD		9.120	19.660	12.570	29.640	9.543	3.813		

180-37949-A-7-D@10

11/5/2014 11:26:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	76.167%	-0.332	7081.000	7069.000	0.000	261600.000	10660.000	10750.000
2	23:25:56	76.384%	-0.374	7340.000	7300.000	0.000	267100.000	11100.000	11030.000
3	23:26:04	74.237%	-0.325	7474.000	7443.000	0.000	274300.000	11300.000	11300.000
X		75.596%	-0.343	7298.000	7271.000	0.000	267600.000	11020.000	11020.000
σ		1.182%	0.027	199.600	189.000	0.000	6351.000	327.200	275.800
%RSD		1.563	7.726	2.735	2.599	0.000	2.373	2.970	2.502
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	29.530	186.700	0.000	7767.000	3652.000	3426.000	66.906%	0.999
2	23:25:56	31.460	148.900	0.000	8134.000	3835.000	3627.000	65.303%	0.754
3	23:26:04	31.800	119.600	0.000	8374.000	4104.000	3758.000	63.860%	1.795
X		30.930	151.800	0.000	8092.000	3863.000	3604.000	65.357%	1.182
σ		1.224	33.630	0.000	305.700	227.500	167.400	1.524%	0.545
%RSD		3.958	22.160	0.000	3.778	5.889	4.645	2.332	46.060
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	2.338	4.969	3.222	45.330	34.470	-0.042	-0.022	2.821
2	23:25:56	2.667	5.081	3.442	47.020	40.050	-0.047	0.011	2.678
3	23:26:04	2.633	5.146	3.689	47.590	40.130	-0.062	0.057	2.945
X		2.546	5.065	3.451	46.650	38.220	-0.050	0.015	2.815
σ		0.181	0.090	0.233	1.174	3.244	0.010	0.040	0.134
%RSD		7.096	1.767	6.764	2.516	8.489	20.210	256.900	4.745
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	2.522	3.260	3.301	0.094	68.060	71.040	0.000	509.100
2	23:25:56	2.766	3.757	3.384	0.172	68.040	65.700	0.000	512.000
3	23:26:04	2.586	3.145	3.694	0.100	68.120	67.120	0.000	510.800
X		2.625	3.387	3.459	0.122	68.070	67.950	0.000	510.600
σ		0.126	0.325	0.207	0.044	0.045	2.767	0.000	1.437
%RSD		4.817	9.603	5.989	35.870	0.066	4.072	0.000	0.281
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	68.912%	0.108	0.093	52.389%	-0.177	-0.097	0.157	0.072
2	23:25:56	69.266%	0.179	0.200	52.246%	-0.181	-0.081	0.087	0.080
3	23:26:04	70.228%	0.176	0.069	52.473%	-0.174	-0.094	0.068	0.101
X		69.469%	0.154	0.121	52.369%	-0.177	-0.091	0.104	0.084
σ		0.681%	0.040	0.070	0.115%	0.004	0.008	0.047	0.015
%RSD		0.980	26.050	57.830	0.219	2.154	9.219	44.800	17.780
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:25:49	52.298%	-0.588	-0.423	-1.265	1.702	1.892	62.938%	63.058%
2	23:25:56	51.989%	-0.379	-0.419	-1.260	1.918	1.628	64.293%	64.346%
3	23:26:04	52.441%	-0.418	-0.403	-1.245	1.688	1.708	63.920%	64.442%
X		52.243%	-0.461	-0.415	-1.257	1.769	1.743	63.717%	63.948%
σ		0.231%	0.111	0.011	0.011	0.129	0.135	0.700%	0.773%
%RSD		0.442	24.090	2.553	0.853	7.292	7.769	1.098	1.209
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:25:49	0.039	0.030	0.184	0.244	0.208	64.774%		
2	23:25:56	0.024	0.034	0.218	0.180	0.209	64.569%		
3	23:26:04	0.035	0.038	0.238	0.191	0.212	65.074%		
X		0.033	0.034	0.213	0.205	0.210	64.805%		
σ		0.008	0.004	0.027	0.034	0.002	0.254%		
%RSD		24.300	12.420	12.840	16.820	1.032	0.392		



180-37949-A-7-D SD@50

11/5/2014 11:31:46 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	84.872%	-0.409	1432.000	1414.000	0.000	50090.000	2056.000	2061.000
2	23:31:02	84.463%	-0.377	1464.000	1422.000	0.000	51160.000	2098.000	2099.000
3	23:31:10	85.547%	-0.422	1455.000	1420.000	0.000	51200.000	2116.000	2082.000
X		84.960%	-0.403	1451.000	1418.000	0.000	50810.000	2090.000	2081.000
σ		0.547%	0.024	16.490	4.131	0.000	630.500	30.570	19.050
%RSD		0.644	5.840	1.137	0.291	0.000	1.241	1.463	0.916
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	8.016	132.800	0.000	1654.000	701.700	663.400	68.587%	0.135
2	23:31:02	9.109	88.150	0.000	1725.000	751.400	717.700	66.976%	0.466
3	23:31:10	8.621	56.790	0.000	1802.000	772.700	733.400	65.447%	0.298
X		8.582	92.580	0.000	1727.000	741.900	704.800	67.004%	0.300
σ		0.547	38.200	0.000	73.620	36.450	36.740	1.570%	0.166
%RSD		6.380	41.260	0.000	4.263	4.912	5.212	2.344	55.220
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	0.889	1.083	0.657	10.840	-3.579	-0.086	0.146	1.440
2	23:31:02	0.414	1.065	0.759	11.220	-2.232	-0.104	0.190	1.236
3	23:31:10	0.897	1.079	0.744	11.470	2.775	-0.113	0.212	1.198
X		0.733	1.076	0.720	11.170	-1.012	-0.101	0.183	1.291
σ		0.276	0.009	0.055	0.316	3.348	0.014	0.034	0.130
%RSD		37.670	0.854	7.687	2.825	330.800	13.830	18.480	10.100
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	1.146	2.232	2.224	0.027	12.840	17.680	0.000	102.500
2	23:31:02	1.404	2.277	2.111	-0.008	15.240	11.370	0.000	102.400
3	23:31:10	1.664	2.238	2.362	0.020	14.520	13.680	0.000	101.900
X		1.405	2.249	2.232	0.013	14.200	14.240	0.000	102.300
σ		0.259	0.024	0.126	0.019	1.234	3.191	0.000	0.325
%RSD		18.420	1.089	5.621	144.500	8.690	22.400	0.000	0.318
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	64.544%	-0.052	-0.011	47.740%	-0.180	-0.099	0.018	-0.014
2	23:31:02	66.580%	-0.041	0.035	48.550%	-0.172	-0.095	0.036	-0.023
3	23:31:10	66.650%	-0.030	0.001	49.141%	-0.176	-0.091	0.073	0.039
X		65.925%	-0.041	0.008	48.477%	-0.176	-0.095	0.042	0.001
σ		1.196%	0.011	0.024	0.703%	0.004	0.004	0.028	0.034
%RSD		1.815	27.220	284.200	1.451	2.300	4.006	66.730	4506.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:30:55	47.351%	-0.721	-0.436	-1.266	0.589	0.564	60.740%	59.971%
2	23:31:02	48.279%	-0.783	-0.455	-1.273	0.207	0.392	61.076%	62.106%
3	23:31:10	49.051%	-0.695	-0.451	-1.290	0.469	0.448	61.256%	61.660%
X		48.227%	-0.733	-0.447	-1.276	0.422	0.468	61.024%	61.246%
σ		0.851%	0.045	0.010	0.012	0.196	0.088	0.262%	1.126%
%RSD		1.765	6.132	2.137	0.965	46.370	18.750	0.429	1.839
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:30:55	0.011	0.022	0.095	0.126	0.087	55.615%		
2	23:31:02	0.034	0.030	0.116	0.067	0.088	57.312%		
3	23:31:10	0.020	0.027	0.090	0.070	0.096	58.258%		
X		0.022	0.026	0.100	0.087	0.090	57.062%		
σ		0.012	0.004	0.014	0.033	0.005	1.339%		
%RSD		53.670	14.190	14.110	37.670	5.751	2.347		

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11/5/2014 11:40:53 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	87.681%	-0.433	38.780	35.800	0.000	-130.900	-1.075	-9.190
2	23:40:09	86.687%	-0.401	26.400	26.830	0.000	-121.800	0.065	-7.696
3	23:40:17	84.715%	-0.371	23.560	21.920	0.000	-111.700	-1.061	-3.269
X		86.361%	-0.401	29.580	28.180	0.000	-121.500	-0.690	-6.718
σ		1.509%	0.031	8.092	7.035	0.000	9.599	0.654	3.079
%RSD		1.748	7.685	27.360	24.960	0.000	7.901	94.770	45.830
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	1.773	114.500	0.000	87.520	2.443	3.297	66.995%	-0.007
2	23:40:09	3.931	67.820	0.000	103.600	5.473	8.481	64.593%	-0.063
3	23:40:17	3.705	42.750	0.000	101.900	14.040	7.055	62.945%	-0.030
X		3.136	75.040	0.000	97.680	7.319	6.278	64.844%	-0.033
σ		1.186	36.430	0.000	8.836	6.015	2.678	2.037%	0.029
%RSD		37.820	48.550	0.000	9.046	82.190	42.660	3.141	85.470
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	0.077	0.042	0.028	1.604	-16.520	-0.062	0.086	0.837
2	23:40:09	-0.039	0.070	0.038	1.350	-15.620	-0.106	0.022	0.959
3	23:40:17	0.112	0.074	0.053	1.237	-16.770	-0.058	-0.102	1.140
X		0.050	0.062	0.040	1.397	-16.300	-0.075	0.002	0.979
σ		0.079	0.017	0.013	0.188	0.605	0.027	0.095	0.152
%RSD		159.000	27.960	32.210	13.450	3.714	35.290	4562.000	15.560
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	0.769	1.938	2.245	-0.043	-0.088	-2.905	0.000	0.030
2	23:40:09	1.003	1.218	1.432	-0.030	-0.060	-5.596	0.000	0.008
3	23:40:17	1.155	1.543	2.233	-0.061	-0.001	-6.605	0.000	-0.002
X		0.976	1.567	1.970	-0.044	-0.050	-5.036	0.000	0.012
σ		0.195	0.361	0.466	0.015	0.044	1.913	0.000	0.016
%RSD		19.980	23.020	23.670	34.780	89.230	37.980	0.000	134.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	63.761%	-0.026	-0.069	48.047%	-0.163	-0.086	-0.002	-0.031
2	23:40:09	64.740%	-0.039	-0.028	47.852%	-0.193	-0.112	0.018	-0.015
3	23:40:17	64.407%	-0.051	-0.060	46.671%	-0.179	-0.107	-0.002	-0.014
X		64.303%	-0.039	-0.052	47.523%	-0.178	-0.102	0.005	-0.020
σ		0.498%	0.012	0.022	0.744%	0.015	0.014	0.011	0.009
%RSD		0.774	32.390	41.280	1.566	8.312	13.530	235.100	47.440
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:40:01	47.832%	-0.658	-0.423	-1.266	-0.006	0.004	60.241%	59.929%
2	23:40:09	47.571%	-0.760	-0.423	-1.260	-0.006	0.020	60.099%	60.253%
3	23:40:17	46.403%	-0.810	-0.440	-1.259	-0.006	0.036	58.857%	59.344%
X		47.269%	-0.743	-0.429	-1.262	-0.006	0.020	59.732%	59.842%
σ		0.760%	0.078	0.010	0.004	0.000	0.016	0.761%	0.460%
%RSD		1.609	10.440	2.281	0.311	6.598	78.850	1.274	0.769
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:40:01	0.010	0.006	0.059	0.046	0.054	60.479%		
2	23:40:09	0.021	0.023	0.055	0.082	0.071	56.640%		
3	23:40:17	0.008	0.014	0.035	0.099	0.068	54.767%		
X		0.013	0.014	0.050	0.075	0.064	57.295%		
σ		0.007	0.009	0.013	0.027	0.009	2.912%		
%RSD		56.130	60.840	25.430	35.980	13.870	5.082		

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11/5/2014 11:45:59 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	65.772%	42.080	966.100	970.600	0.000	49730.000	41290.000	41420.000
2	23:45:15	63.172%	45.160	996.100	998.000	0.000	52230.000	43380.000	43650.000
3	23:45:23	61.901%	44.690	972.700	1003.000	0.000	53120.000	43410.000	43650.000
X		63.615%	43.970	978.300	990.500	0.000	51690.000	42690.000	42910.000
σ		1.973%	1.659	15.780	17.440	0.000	1754.000	1214.000	1287.000
%RSD		3.102	3.773	1.613	1.761	0.000	3.394	2.843	2.999
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	1743.000	9520.000	0.000	54400.000	50210.000	49890.000	47.174%	1020.000
2	23:45:15	1825.000	9950.000	0.000	56520.000	52840.000	52640.000	45.863%	1059.000
3	23:45:23	1846.000	10130.000	0.000	56760.000	53560.000	53380.000	45.986%	1090.000
X		1805.000	9866.000	0.000	55890.000	52200.000	51970.000	46.341%	1056.000
σ		54.180	312.800	0.000	1295.000	1768.000	1837.000	0.724%	34.800
%RSD		3.002	3.170	0.000	2.317	3.386	3.534	1.562	3.294
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	493.300	207.700	482.500	1004.000	1037.000	498.100	496.400	244.300
2	23:45:15	520.300	216.900	506.200	1045.000	1058.000	514.600	505.100	249.000
3	23:45:23	522.700	216.000	516.400	1049.000	1042.000	513.500	507.500	250.000
X		512.100	213.500	501.700	1033.000	1046.000	508.700	503.000	247.800
σ		16.340	5.053	17.400	25.190	11.080	9.188	5.825	3.021
%RSD		3.190	2.366	3.469	2.440	1.059	1.806	1.158	1.219
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	252.600	467.500	457.300	35.930	8.215	3.843	0.000	862.400
2	23:45:15	261.100	478.900	473.700	36.240	9.058	9.407	0.000	848.300
3	23:45:23	256.800	478.000	471.000	35.800	9.184	4.321	0.000	856.600
X		256.900	474.800	467.300	35.990	8.819	5.857	0.000	855.800
σ		4.237	6.350	8.779	0.226	0.527	3.084	0.000	7.064
%RSD		1.649	1.337	1.879	0.627	5.974	52.650	0.000	0.826
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	56.917%	1036.000	1078.000	43.701%	51.340	51.610	52.030	101.400
2	23:45:15	58.796%	1040.000	1070.000	44.438%	50.810	51.840	52.040	102.700
3	23:45:23	58.796%	1039.000	1081.000	45.191%	51.950	51.020	51.070	103.500
X		58.170%	1038.000	1076.000	44.443%	51.370	51.490	51.710	102.600
σ		1.085%	1.825	5.988	0.745%	0.574	0.425	0.555	1.049
%RSD		1.865	0.176	0.556	1.675	1.117	0.826	1.073	1.023
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:45:07	43.906%	2071.000	508.100	508.700	1900.000	1913.000	58.822%	59.039%
2	23:45:15	44.557%	2082.000	510.600	515.700	1894.000	1908.000	59.544%	60.111%
3	23:45:23	45.176%	2068.000	512.400	511.800	1899.000	1905.000	61.224%	60.863%
X		44.546%	2074.000	510.400	512.100	1898.000	1909.000	59.863%	60.004%
σ		0.635%	7.834	2.207	3.517	3.217	4.356	1.232%	0.916%
%RSD		1.425	0.378	0.432	0.687	0.170	0.228	2.058	1.527
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:45:07	51.570	50.520	20.570	21.020	20.880	57.494%		
2	23:45:15	51.640	49.750	20.320	21.140	20.740	59.559%		
3	23:45:23	52.110	50.630	20.740	21.360	21.160	59.645%		
X		51.770	50.300	20.540	21.170	20.930	58.900%		
σ		0.293	0.478	0.211	0.176	0.216	1.218%		
%RSD		0.566	0.950	1.026	0.829	1.034	2.067		

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11/5/2014 11:51:04 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	69.454%	1.283	64.180	61.280	0.000	16510.000	5677.000	5561.000
2	23:50:19	68.097%	1.521	52.540	51.830	0.000	16960.000	5730.000	5708.000
3	23:50:27	64.966%	1.534	44.840	48.370	0.000	17390.000	5845.000	5889.000
X		67.506%	1.446	53.850	53.830	0.000	16950.000	5751.000	5719.000
σ		2.302%	0.142	9.736	6.680	0.000	438.100	85.970	164.400
%RSD		3.410	9.782	18.080	12.410	0.000	2.584	1.495	2.875
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	13490.000	3364.000	0.000	2743.000	4141.000	3953.000	51.061%	713.700
2	23:50:19	13800.000	3410.000	0.000	2811.000	4220.000	4085.000	50.881%	744.300
3	23:50:27	14250.000	3522.000	0.000	2820.000	4314.000	4202.000	50.575%	762.100
X		13850.000	3432.000	0.000	2792.000	4225.000	4080.000	50.839%	740.000
σ		379.200	81.060	0.000	42.290	86.270	124.500	0.246%	24.510
%RSD		2.739	2.362	0.000	1.515	2.042	3.051	0.483	3.313
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	342.300	602.300	1333.000	183200.000	179600.000	30.550	75.430	154.400
2	23:50:19	346.300	612.600	1389.000	186100.000	181900.000	31.740	79.650	160.100
3	23:50:27	349.700	616.400	1406.000	186400.000	183600.000	31.350	78.630	158.100
X		346.100	610.400	1376.000	185200.000	181700.000	31.210	77.900	157.500
σ		3.685	7.329	38.490	1756.000	1990.000	0.606	2.199	2.926
%RSD		1.065	1.201	2.797	0.948	1.095	1.942	2.823	1.858
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	167.500	8276.000	8278.000	60.250	2.456	3.813	0.000	55.620
2	23:50:19	164.400	8464.000	8469.000	61.820	2.507	4.755	0.000	56.940
3	23:50:27	168.400	8324.000	8414.000	60.500	1.880	-1.777	0.000	58.350
X		166.700	8355.000	8387.000	60.860	2.281	2.264	0.000	56.970
σ		2.105	97.490	98.580	0.847	0.348	3.531	0.000	1.364
%RSD		1.263	1.167	1.175	1.392	15.260	156.000	0.000	2.395
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	0.000	10.690	10.640	44.031%	0.909	0.913	62.140	71.350
2	23:50:19	0.000	10.670	9.444	42.786%	0.852	0.967	62.280	73.270
3	23:50:27	0.000	10.890	9.315	42.596%	0.827	0.811	63.180	71.820
X		0.000	10.750	9.798	43.137%	0.862	0.897	62.540	72.150
σ		0.000	0.121	0.728	0.779%	0.042	0.079	0.566	1.003
%RSD		0.000	1.121	7.429	1.807	4.900	8.828	0.906	1.390
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:50:12	45.162%	385.000	3.655	2.851	52.590	52.680	61.139%	61.607%
2	23:50:19	43.904%	383.100	3.590	2.618	52.350	53.070	60.308%	60.324%
3	23:50:27	43.899%	384.700	3.823	2.640	53.400	55.640	59.305%	60.617%
X		44.322%	384.300	3.689	2.703	52.780	53.800	60.251%	60.849%
σ		0.727%	0.994	0.120	0.129	0.552	1.607	0.918%	0.672%
%RSD		1.641	0.259	3.259	4.754	1.046	2.986	1.524	1.104
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:50:12	0.631	0.595	202.200	191.800	196.900	59.011%		
2	23:50:19	0.655	0.558	203.500	192.500	197.200	57.071%		
3	23:50:27	0.588	0.505	202.900	192.600	197.000	54.995%		
X		0.624	0.552	202.900	192.300	197.000	57.026%		
σ		0.034	0.045	0.618	0.470	0.196	2.008%		
%RSD		5.367	8.222	0.305	0.245	0.099	3.522		

180-37760-B-2-B

11/5/2014 11:56:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	67.553%	1.484	61.270	61.860	0.000	13810.000	5081.000	5052.000
2	23:55:29	65.431%	1.768	55.980	56.120	0.000	14390.000	5230.000	5338.000
3	23:55:37	63.916%	1.726	50.030	49.880	0.000	14530.000	5307.000	5275.000
X		65.633%	1.659	55.760	55.950	0.000	14240.000	5206.000	5222.000
σ		1.827%	0.153	5.622	5.994	0.000	384.900	115.000	150.300
%RSD		2.783	9.245	10.080	10.710	0.000	2.703	2.209	2.878
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	12800.000	4136.000	0.000	2425.000	5105.000	4918.000	53.804%	601.400
2	23:55:29	13430.000	4233.000	0.000	2523.000	5395.000	5168.000	51.890%	628.000
3	23:55:37	13510.000	4182.000	0.000	2506.000	5636.000	5232.000	52.152%	650.800
X		13250.000	4184.000	0.000	2485.000	5378.000	5106.000	52.615%	626.700
σ		387.900	48.560	0.000	52.070	266.100	165.800	1.038%	24.700
%RSD		2.928	1.161	0.000	2.096	4.948	3.247	1.973	3.942
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	429.100	2608.000	1250.000	240500.000	236800.000	29.110	94.750	302.900
2	23:55:29	451.400	2706.000	1310.000	247000.000	246000.000	30.260	97.990	312.000
3	23:55:37	453.400	2716.000	1321.000	247200.000	243600.000	30.930	96.920	315.000
X		444.600	2677.000	1294.000	244900.000	242100.000	30.100	96.550	309.900
σ		13.460	59.800	38.050	3850.000	4784.000	0.920	1.647	6.309
%RSD		3.026	2.234	2.941	1.572	1.976	3.055	1.706	2.036
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	323.500	12470.000	12530.000	75.160	3.862	-1.322	0.000	73.730
2	23:55:29	327.900	12620.000	12620.000	74.960	3.733	-2.146	0.000	73.800
3	23:55:37	329.600	12630.000	12640.000	74.420	3.318	7.734	0.000	71.610
X		327.000	12570.000	12590.000	74.850	3.638	1.422	0.000	73.050
σ		3.144	84.920	58.140	0.382	0.284	5.482	0.000	1.245
%RSD		0.962	0.675	0.462	0.511	7.818	385.600	0.000	1.705
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	0.000	10.860	10.450	43.962%	2.495	2.515	77.620	105.300
2	23:55:29	0.000	10.450	9.915	45.245%	2.167	2.377	77.140	104.900
3	23:55:37	0.000	9.749	10.550	45.814%	2.305	2.576	80.000	102.500
X		0.000	10.350	10.310	45.007%	2.322	2.489	78.260	104.200
σ		0.000	0.562	0.343	0.948%	0.164	0.102	1.532	1.528
%RSD		0.000	5.430	3.328	2.107	7.079	4.111	1.958	1.466
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	23:55:21	44.592%	1002.000	5.778	4.551	57.450	54.200	60.707%	61.007%
2	23:55:29	45.703%	990.300	6.083	4.597	54.620	54.090	62.653%	62.229%
3	23:55:37	46.555%	997.400	5.728	4.744	54.000	53.100	62.884%	62.664%
X		45.617%	996.500	5.863	4.631	55.360	53.800	62.081%	61.967%
σ		0.984%	5.832	0.192	0.101	1.839	0.606	1.196%	0.859%
%RSD		2.157	0.585	3.271	2.183	3.321	1.126	1.926	1.386
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	23:55:21	0.926	0.900	352.900	330.400	342.000	56.706%		
2	23:55:29	0.871	0.869	348.700	328.100	336.500	59.395%		
3	23:55:37	0.878	0.860	349.400	325.700	336.400	60.311%		
X		0.892	0.876	350.300	328.100	338.300	58.804%		
σ		0.030	0.021	2.216	2.384	3.172	1.874%		
%RSD		3.390	2.380	0.633	0.727	0.938	3.186		

CCV 1369903 11/6/2014 12:01:23 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	78.248%	89.670	125.300	122.500	0.000	48710.000	43550.000	43680.000
2	00:00:36	77.567%	90.950	122.800	114.800	0.000	49150.000	43990.000	43930.000
3	00:00:44	77.776%	93.390	114.700	111.900	0.000	49020.000	43960.000	43920.000
X		77.864%	91.341%	120.938%	116.385%	0.000	97.923%	87.665%	87.686%
σ		0.349%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.448	2.070	4.578	4.704	0.000	0.467	0.557	0.323
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	445.100	5870.000	0.000	56600.000	47780.000	48940.000	62.728%	99.940
2	00:00:36	451.100	6056.000	0.000	58540.000	50430.000	51140.000	62.298%	107.900
3	00:00:44	444.200	5756.000	0.000	59340.000	51810.000	52050.000	62.184%	106.000
X		89.361%	117.876%	0.000	116.321%	100.012%	101.419%	62.403%	104.621%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.287%	n/a
%RSD		0.836	2.569	0.000	2.423	4.097	3.155	0.460	3.985
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	94.530	97.670	485.300	26220.000	23390.000	97.050	97.280	101.900
2	00:00:36	95.850	98.200	505.400	26330.000	23410.000	97.720	97.820	101.900
3	00:00:44	95.820	97.060	513.900	26210.000	23280.000	97.220	99.540	101.300
X		95.400%	97.643%	100.308%	105.015%	93.444%	97.331%	98.215%	101.677%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.789	0.582	2.923	0.263	0.292	0.360	1.204	0.347
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	102.800	101.300	101.200	96.420	90.780	94.020	0.000	91.470
2	00:00:36	101.000	104.100	106.100	96.210	94.610	87.140	0.000	93.060
3	00:00:44	100.300	105.600	103.200	97.150	94.920	96.220	0.000	92.360
X		101.382%	103.664%	103.521%	96.596%	93.436%	92.461%	0.000	92.296%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.230	2.116	2.371	0.511	2.465	5.122	0.000	0.864
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	64.605%	103.100	104.800	51.395%	104.100	104.400	100.200	106.700
2	00:00:36	64.550%	102.600	106.600	50.597%	103.800	104.700	104.000	106.100
3	00:00:44	64.069%	104.200	107.600	49.414%	104.200	105.500	103.700	107.600
X		64.408%	103.317%	106.345%	50.469%	104.042%	104.894%	102.632%	106.794%
σ		0.295%	n/a	n/a	0.996%	n/a	n/a	n/a	n/a
%RSD		0.458	0.815	1.340	1.974	0.208	0.560	2.088	0.684
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:00:28	50.707%	106.000	104.100	101.900	98.770	101.500	62.621%	62.189%
2	00:00:36	51.221%	104.000	102.000	101.700	99.170	99.260	62.866%	63.810%
3	00:00:44	49.427%	106.700	103.100	102.100	101.100	99.750	62.123%	62.295%
X		50.452%	105.574%	103.101%	101.932%	99.671%	100.154%	62.537%	62.764%
σ		0.924%	n/a	n/a	n/a	n/a	n/a	0.379%	0.907%
%RSD		1.832	1.366	1.026	0.179	1.229	1.152	0.605	1.445
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:00:28	107.600	105.900	108.200	109.200	108.200	63.076%		
2	00:00:36	107.200	105.900	108.500	107.200	107.900	62.343%		
3	00:00:44	107.700	106.200	108.700	109.500	108.700	59.667%		
X		107.488%	105.980%	108.488%	108.638%	108.257%	61.695%		
σ		n/a	n/a	n/a	n/a	n/a	1.795%		
%RSD		0.267	0.163	0.243	1.144	0.397	2.909		

CCB8 11/6/2014 12:10:33 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	91.885%	-0.423	18.670	18.230	0.000	-142.400	16.940	11.310
2	00:09:47	92.287%	-0.356	9.440	8.697	0.000	-139.000	20.390	17.090
3	00:09:55	91.145%	-0.353	3.480	3.813	0.000	-130.900	20.360	13.890
X		91.773%	-0.377	10.530	10.250	0.000	-137.500	19.230	14.100
σ		0.579%	0.040	7.655	7.331	0.000	5.900	1.986	2.899
%RSD		0.631	10.580	72.690	71.550	0.000	4.292	10.330	20.570
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	4.539	98.130	0.000	24.720	11.290	15.420	78.829%	0.277
2	00:09:47	5.178	59.240	0.000	33.030	37.620	20.510	77.179%	0.029
3	00:09:55	5.519	36.870	0.000	32.010	26.450	23.940	76.210%	0.005
X		5.079	64.750	0.000	29.920	25.120	19.960	77.406%	0.104
σ		0.497	31.000	0.000	4.533	13.220	4.285	1.324%	0.150
%RSD		9.794	47.880	0.000	15.150	52.610	21.470	1.711	145.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	0.029	0.263	0.302	38.910	23.440	-0.040	-0.058	1.179
2	00:09:47	0.168	0.221	0.270	41.970	23.210	-0.014	0.029	1.099
3	00:09:55	0.081	0.301	0.368	39.860	23.480	-0.068	-0.042	1.332
X		0.093	0.262	0.313	40.250	23.380	-0.041	-0.024	1.203
σ		0.070	0.040	0.050	1.566	0.148	0.027	0.046	0.118
%RSD		75.400	15.230	15.930	3.891	0.634	66.810	192.800	9.834
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	1.304	0.836	1.104	0.003	-0.038	-4.849	0.000	0.301
2	00:09:47	1.361	1.012	1.386	0.019	-0.015	3.459	0.000	0.216
3	00:09:55	1.380	0.799	0.732	0.021	0.030	-2.748	0.000	0.263
X		1.348	0.883	1.074	0.014	-0.008	-1.379	0.000	0.260
σ		0.039	0.114	0.328	0.010	0.034	4.320	0.000	0.043
%RSD		2.927	12.890	30.570	66.850	455.900	313.100	0.000	16.510
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	78.293%	0.142	0.206	73.979%	-0.161	-0.049	0.048	0.043
2	00:09:47	78.964%	0.225	0.164	74.237%	-0.126	-0.061	0.011	0.047
3	00:09:55	80.254%	0.210	0.177	75.368%	-0.164	-0.053	0.035	0.037
X		79.171%	0.192	0.182	74.528%	-0.150	-0.054	0.031	0.042
σ		0.997%	0.044	0.022	0.739%	0.021	0.006	0.019	0.005
%RSD		1.259	22.990	11.880	0.991	14.290	11.040	61.050	12.480
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:09:40	72.856%	-0.629	-0.178	-1.015	0.156	0.256	78.189%	77.568%
2	00:09:47	73.524%	-0.424	-0.207	-1.036	0.098	0.127	78.455%	78.520%
3	00:09:55	73.578%	-0.511	-0.202	-1.105	0.134	0.157	80.075%	79.275%
X		73.319%	-0.521	-0.196	-1.052	0.130	0.180	78.907%	78.454%
σ		0.402%	0.103	0.015	0.048	0.029	0.067	1.021%	0.855%
%RSD		0.549	19.810	7.901	4.515	22.500	37.440	1.294	1.090
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:09:40	0.058	0.054	0.263	0.213	0.238	78.400%		
2	00:09:47	0.056	0.057	0.214	0.277	0.232	78.358%		
3	00:09:55	0.060	0.046	0.295	0.245	0.242	78.795%		
X		0.058	0.052	0.257	0.245	0.237	78.518%		
σ		0.002	0.006	0.041	0.032	0.005	0.241%		
%RSD		3.942	11.430	15.850	12.950	2.056	0.307		

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11/6/2014 12:15:41 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	71.546%	1.066	52.870	57.280	0.000	13000.000	5257.000	5158.000
2	00:14:57	68.929%	1.145	46.390	48.190	0.000	13300.000	5313.000	5255.000
3	00:15:04	66.600%	1.474	49.030	47.540	0.000	13560.000	5323.000	5339.000
X		69.025%	1.228	49.430	51.000	0.000	13290.000	5298.000	5251.000
σ		2.475%	0.216	3.259	5.448	0.000	276.300	35.920	90.800
%RSD		3.585	17.610	6.593	10.680	0.000	2.080	0.678	1.729
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	9845.000	3292.000	0.000	1898.000	3322.000	3079.000	52.467%	582.400
2	00:14:57	9961.000	3333.000	0.000	2006.000	3317.000	3180.000	52.205%	599.600
3	00:15:04	10180.000	3422.000	0.000	1966.000	3422.000	3289.000	52.365%	608.600
X		9995.000	3349.000	0.000	1957.000	3354.000	3183.000	52.346%	596.900
σ		169.500	66.570	0.000	54.890	59.320	105.000	0.132%	13.290
%RSD		1.695	1.988	0.000	2.805	1.769	3.298	0.252	2.227
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	359.200	1695.000	1301.000	224900.000	221600.000	27.730	85.770	164.800
2	00:14:57	359.600	1706.000	1346.000	226700.000	223200.000	28.060	83.780	167.300
3	00:15:04	365.100	1713.000	1375.000	226300.000	223800.000	28.150	85.460	167.100
X		361.300	1704.000	1341.000	226000.000	222800.000	27.980	85.000	166.400
σ		3.316	9.118	36.880	947.500	1136.000	0.223	1.067	1.402
%RSD		0.918	0.535	2.751	0.419	0.510	0.798	1.255	0.843
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	172.500	4633.000	4677.000	57.680	1.968	3.466	0.000	58.270
2	00:14:57	172.300	4655.000	4689.000	56.570	1.551	1.904	0.000	57.300
3	00:15:04	173.100	4658.000	4649.000	58.100	2.157	-6.397	0.000	57.740
X		172.600	4649.000	4672.000	57.450	1.892	-0.342	0.000	57.770
σ		0.405	13.650	20.320	0.789	0.311	5.302	0.000	0.482
%RSD		0.235	0.294	0.435	1.373	16.410	1549.000	0.000	0.835
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	0.000	10.870	10.430	46.512%	0.833	0.890	19.140	39.910
2	00:14:57	0.000	10.980	10.840	46.948%	0.774	0.845	17.700	40.240
3	00:15:04	0.000	10.660	10.990	47.754%	0.996	0.973	17.960	40.820
X		0.000	10.840	10.750	47.071%	0.868	0.903	18.260	40.320
σ		0.000	0.161	0.293	0.630%	0.115	0.065	0.769	0.461
%RSD		0.000	1.485	2.728	1.338	13.270	7.175	4.208	1.143
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:14:49	42.048%	907.500	5.048	4.082	42.800	40.750	57.983%	57.945%
2	00:14:57	43.047%	896.100	5.188	3.969	40.750	39.360	58.862%	59.225%
3	00:15:04	43.546%	890.900	5.154	3.750	40.790	39.170	59.349%	60.228%
X		42.881%	898.200	5.130	3.934	41.440	39.760	58.731%	59.132%
σ		0.763%	8.495	0.073	0.169	1.173	0.861	0.692%	1.144%
%RSD		1.779	0.946	1.431	4.291	2.830	2.165	1.179	1.935
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:14:49	0.487	0.486	265.100	247.300	254.500	52.231%		
2	00:14:57	0.554	0.526	266.500	250.600	257.000	52.387%		
3	00:15:04	0.520	0.477	270.900	249.100	257.600	53.623%		
X		0.520	0.496	267.500	249.000	256.400	52.747%		
σ		0.033	0.026	3.003	1.636	1.628	0.763%		
%RSD		6.437	5.255	1.122	0.657	0.635	1.446		



180-37760-D-4-B

11/6/2014 12:20:49 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	68.881%	1.764	52.750	56.100	0.000	23500.000	8595.000	8586.000
2	00:20:03	68.604%	1.819	42.040	45.810	0.000	23680.000	8572.000	8602.000
3	00:20:10	63.909%	1.874	43.310	43.170	0.000	24930.000	9092.000	8994.000
X		67.132%	1.819	46.030	48.360	0.000	24040.000	8753.000	8727.000
σ		2.794%	0.055	5.849	6.834	0.000	778.100	293.700	230.800
%RSD		4.162	3.022	12.710	14.130	0.000	3.237	3.356	2.644
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	29560.000	4572.000	0.000	6351.000	13200.000	12790.000	55.984%	812.300
2	00:20:03	29630.000	4541.000	0.000	6479.000	13610.000	13230.000	56.375%	848.600
3	00:20:10	30920.000	4638.000	0.000	6503.000	14100.000	13340.000	55.779%	847.100
X		30040.000	4584.000	0.000	6444.000	13640.000	13120.000	56.046%	836.000
σ		766.900	49.320	0.000	81.340	452.300	291.700	0.303%	20.500
%RSD		2.553	1.076	0.000	1.262	3.317	2.223	0.541	2.452
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	252.400	855.900	1253.000	150700.000	147300.000	26.590	72.960	144.900
2	00:20:03	250.700	856.800	1284.000	149700.000	146200.000	26.330	74.700	142.600
3	00:20:10	258.800	869.700	1294.000	153100.000	149400.000	26.480	76.040	146.200
X		254.000	860.800	1277.000	151200.000	147700.000	26.470	74.570	144.600
σ		4.292	7.752	21.380	1723.000	1609.000	0.129	1.543	1.799
%RSD		1.690	0.901	1.675	1.140	1.089	0.488	2.070	1.244
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	152.400	2237.000	2232.000	34.300	2.154	0.591	0.000	111.400
2	00:20:03	152.000	2227.000	2224.000	34.920	1.768	0.263	0.000	112.200
3	00:20:10	155.400	2245.000	2263.000	34.400	1.974	-0.330	0.000	112.300
X		153.300	2237.000	2240.000	34.540	1.965	0.175	0.000	112.000
σ		1.848	9.029	20.520	0.329	0.193	0.467	0.000	0.494
%RSD		1.206	0.404	0.916	0.952	9.836	267.300	0.000	0.441
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	0.000	7.802	7.651	53.196%	0.768	0.757	10.300	25.280
2	00:20:03	0.000	7.772	7.387	53.681%	0.842	0.942	9.656	25.790
3	00:20:10	0.000	8.240	7.386	53.866%	0.832	0.722	9.423	25.830
X		0.000	7.938	7.474	53.581%	0.814	0.807	9.794	25.630
σ		0.000	0.262	0.153	0.346%	0.040	0.118	0.455	0.310
%RSD		0.000	3.303	2.043	0.646	4.949	14.640	4.649	1.209
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:19:55	47.393%	622.400	2.940	1.828	95.730	96.930	63.528%	64.173%
2	00:20:03	47.798%	622.300	2.975	1.906	94.050	98.650	65.293%	64.628%
3	00:20:10	48.760%	620.200	2.782	2.130	97.650	98.770	64.955%	65.469%
X		47.984%	621.600	2.899	1.955	95.810	98.120	64.592%	64.756%
σ		0.702%	1.253	0.103	0.157	1.801	1.028	0.937%	0.658%
%RSD		1.464	0.202	3.554	8.040	1.880	1.048	1.451	1.016
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:19:55	0.619	0.679	195.400	182.000	188.600	60.632%		
2	00:20:03	0.601	0.615	193.100	177.900	185.000	62.268%		
3	00:20:10	0.756	0.591	192.200	181.600	187.700	61.926%		
X		0.658	0.629	193.600	180.500	187.100	61.609%		
σ		0.085	0.046	1.624	2.225	1.853	0.863%		
%RSD		12.870	7.302	0.839	1.233	0.990	1.401		

180-37760-D-5-B

11/6/2014 12:25:54 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	61.470%	5.425	124.100	138.200	0.000	61730.000	29830.000	30020.000
2	00:25:10	58.589%	5.237	130.700	127.600	0.000	64160.000	31120.000	31040.000
3	00:25:18	60.593%	5.105	115.200	120.300	0.000	62790.000	30420.000	30310.000
X		60.218%	5.255	123.300	128.700	0.000	62890.000	30450.000	30460.000
σ		1.477%	0.161	7.780	9.004	0.000	1215.000	646.500	529.400
%RSD		2.452	3.063	6.308	6.994	0.000	1.933	2.123	1.738
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	52300.000	16350.000	0.000	10710.000	40360.000	40100.000	53.337%	2252.000
2	00:25:10	53850.000	16710.000	0.000	10980.000	42170.000	41620.000	51.655%	2348.000
3	00:25:18	52850.000	16500.000	0.000	10940.000	42080.000	41980.000	51.431%	2382.000
X		53000.000	16520.000	0.000	10870.000	41530.000	41230.000	52.141%	2327.000
σ		785.100	183.300	0.000	145.600	1022.000	997.600	1.042%	67.330
%RSD		1.481	1.110	0.000	1.339	2.460	2.419	1.999	2.893
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	1076.000	7645.000	5532.000	802800.000	791400.000	91.500	400.200	1077.000
2	00:25:10	1100.000	7795.000	5710.000	814200.000	801100.000	90.560	404.000	1073.000
3	00:25:18	1090.000	7742.000	5798.000	813200.000	797200.000	91.800	403.500	1072.000
X		1089.000	7727.000	5680.000	810100.000	796600.000	91.280	402.600	1074.000
σ		11.670	75.720	135.300	6321.000	4915.000	0.649	2.032	2.610
%RSD		1.072	0.980	2.382	0.780	0.617	0.711	0.505	0.243
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	1118.000	7886.000	7931.000	126.800	13.220	15.190	0.000	332.400
2	00:25:10	1125.000	7900.000	7925.000	125.400	14.630	19.040	0.000	335.500
3	00:25:18	1125.000	7839.000	7919.000	124.800	13.910	17.720	0.000	334.200
X		1123.000	7875.000	7925.000	125.700	13.920	17.320	0.000	334.000
σ		3.981	32.120	6.200	1.007	0.703	1.959	0.000	1.551
%RSD		0.355	0.408	0.078	0.801	5.049	11.320	0.000	0.464
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	0.000	55.900	57.660	42.149%	12.460	13.090	29.540	127.800
2	00:25:10	0.000	56.650	57.640	42.319%	13.010	13.230	30.370	132.000
3	00:25:18	0.000	58.460	57.340	42.230%	12.730	13.250	32.420	131.900
X		0.000	57.000	57.550	42.233%	12.730	13.190	30.780	130.500
σ		0.000	1.315	0.177	0.085%	0.276	0.086	1.479	2.405
%RSD		0.000	2.308	0.308	0.201	2.163	0.651	4.807	1.842
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:25:02	37.175%	4115.000	25.390	23.810	294.400	287.400	55.614%	55.307%
2	00:25:10	37.207%	4158.000	25.190	24.050	290.900	288.700	55.847%	56.375%
3	00:25:18	36.992%	4178.000	25.820	23.480	291.100	294.600	55.580%	55.363%
X		37.125%	4150.000	25.460	23.780	292.100	290.200	55.681%	55.682%
σ		0.116%	32.250	0.320	0.286	1.974	3.815	0.145%	0.601%
%RSD		0.312	0.777	1.257	1.203	0.676	1.315	0.261	1.079
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:25:02	2.174	2.216	959.200	884.900	924.500	44.948%		
2	00:25:10	2.175	2.203	957.900	891.600	926.100	45.781%		
3	00:25:18	2.328	2.152	962.400	893.100	929.600	46.824%		
X		2.226	2.190	959.800	889.800	926.700	45.851%		
σ		0.089	0.034	2.343	4.342	2.642	0.940%		
%RSD		3.990	1.543	0.244	0.488	0.285	2.050		

180-37760-C-7-B

11/6/2014 12:31:02 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	66.936%	2.374	68.170	75.890	0.000	27300.000	11210.000	11120.000
2	00:30:16	65.727%	2.773	65.810	66.980	0.000	27920.000	11450.000	11400.000
3	00:30:24	63.345%	2.675	59.350	64.980	0.000	28300.000	11440.000	11410.000
X		65.336%	2.607	64.440	69.280	0.000	27840.000	11370.000	11310.000
σ		1.827%	0.208	4.567	5.810	0.000	504.900	140.100	164.900
%RSD		2.797	7.969	7.087	8.386	0.000	1.814	1.232	1.458
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	17110.000	6886.000	0.000	3891.000	19040.000	18550.000	49.215%	1261.000
2	00:30:16	17490.000	6982.000	0.000	3976.000	19690.000	19240.000	47.965%	1309.000
3	00:30:24	17610.000	7186.000	0.000	4037.000	20020.000	19570.000	47.408%	1331.000
X		17400.000	7018.000	0.000	3968.000	19580.000	19120.000	48.196%	1300.000
σ		263.700	152.800	0.000	73.170	498.500	521.300	0.925%	35.970
%RSD		1.515	2.177	0.000	1.844	2.546	2.727	1.920	2.767
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	877.900	7695.000	4175.000	725200.000	710800.000	89.060	259.500	1143.000
2	00:30:16	902.200	7822.000	4261.000	743600.000	728200.000	91.490	263.300	1177.000
3	00:30:24	902.000	7804.000	4363.000	737900.000	721900.000	89.670	263.200	1156.000
X		894.000	7774.000	4266.000	735600.000	720300.000	90.070	262.000	1158.000
σ		13.980	68.790	93.700	9415.000	8821.000	1.261	2.190	17.230
%RSD		1.564	0.885	2.196	1.280	1.225	1.400	0.836	1.488
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	1189.000	14960.000	14980.000	137.100	7.397	12.860	0.000	279.800
2	00:30:16	1204.000	15230.000	15210.000	137.400	9.350	7.920	0.000	280.800
3	00:30:24	1197.000	15020.000	15010.000	136.300	6.616	12.900	0.000	278.500
X		1197.000	15070.000	15060.000	136.900	7.788	11.230	0.000	279.700
σ		7.340	142.300	122.800	0.574	1.408	2.866	0.000	1.149
%RSD		0.613	0.944	0.815	0.419	18.080	25.520	0.000	0.411
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	0.000	73.180	71.780	41.548%	15.880	17.380	72.800	597.900
2	00:30:16	0.000	74.350	73.170	40.598%	17.140	17.590	73.910	592.700
3	00:30:24	0.000	74.370	72.410	40.894%	16.680	17.410	72.660	596.700
X		0.000	73.970	72.460	41.013%	16.570	17.460	73.120	595.700
σ		0.000	0.680	0.695	0.486%	0.642	0.112	0.687	2.742
%RSD		0.000	0.920	0.959	1.185	3.874	0.644	0.939	0.460
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:30:08	31.456%	24170.000	25.570	20.840	373.700	371.400	51.869%	52.162%
2	00:30:16	31.411%	23880.000	24.700	20.860	373.100	363.800	51.204%	52.312%
3	00:30:24	31.295%	23940.000	25.230	20.820	362.200	367.600	51.689%	52.266%
X		31.387%	24000.000	25.170	20.840	369.700	367.600	51.587%	52.246%
σ		0.083%	150.800	0.440	0.018	6.460	3.783	0.344%	0.077%
%RSD		0.265	0.629	1.749	0.088	1.747	1.029	0.667	0.148
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:30:08	1.592	1.568	1634.000	1502.000	1594.000	49.957%		
2	00:30:16	1.463	1.456	1606.000	1491.000	1574.000	50.708%		
3	00:30:24	1.419	1.563	1609.000	1485.000	1574.000	50.792%		
X		1.491	1.529	1616.000	1493.000	1581.000	50.486%		
σ		0.090	0.063	15.290	9.039	11.480	0.460%		
%RSD		6.004	4.115	0.946	0.606	0.726	0.910		

180-37760-B-8-B

11/6/2014 12:36:08 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	66.091%	2.126	73.290	68.710	0.000	21300.000	9290.000	9296.000
2	00:35:23	65.694%	2.206	58.730	60.360	0.000	21660.000	9446.000	9389.000
3	00:35:31	63.178%	2.069	59.330	59.590	0.000	22070.000	9705.000	9584.000
X		64.987%	2.134	63.780	62.890	0.000	21680.000	9480.000	9423.000
σ		1.580%	0.069	8.236	5.060	0.000	385.400	209.600	147.100
%RSD		2.430	3.242	12.910	8.045	0.000	1.778	2.211	1.561
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	14150.000	6625.000	0.000	3446.000	26020.000	25270.000	45.425%	1164.000
2	00:35:23	14420.000	6685.000	0.000	3465.000	26740.000	26090.000	44.786%	1223.000
3	00:35:31	14670.000	6576.000	0.000	3509.000	26910.000	26480.000	43.863%	1226.000
X		14420.000	6629.000	0.000	3473.000	26560.000	25940.000	44.691%	1204.000
σ		256.700	54.560	0.000	32.110	470.700	615.500	0.785%	35.230
%RSD		1.781	0.823	0.000	0.924	1.772	2.373	1.757	2.926
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	850.200	7373.000	4158.000	694000.000	684600.000	84.210	250.600	1146.000
2	00:35:23	872.100	7484.000	4261.000	698800.000	685600.000	82.430	252.400	1152.000
3	00:35:31	892.400	7579.000	4353.000	708500.000	697700.000	85.860	251.800	1157.000
X		871.600	7479.000	4257.000	700400.000	689300.000	84.170	251.600	1151.000
σ		21.120	103.100	97.840	7427.000	7278.000	1.714	0.929	5.061
%RSD		2.424	1.378	2.298	1.060	1.056	2.036	0.369	0.440
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	1192.000	14550.000	14640.000	137.300	7.361	1.592	0.000	299.900
2	00:35:23	1193.000	14520.000	14620.000	135.500	7.324	11.930	0.000	300.600
3	00:35:31	1196.000	14700.000	14720.000	134.400	8.031	-12.300	0.000	298.100
X		1194.000	14590.000	14660.000	135.700	7.572	0.409	0.000	299.500
σ		2.057	94.490	49.880	1.463	0.398	12.160	0.000	1.319
%RSD		0.172	0.648	0.340	1.078	5.253	2970.000	0.000	0.441
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	0.000	70.810	69.320	34.117%	14.230	15.610	71.940	573.600
2	00:35:23	0.000	71.780	69.510	34.666%	15.230	16.070	68.460	587.400
3	00:35:31	0.000	70.850	70.240	34.827%	15.230	15.640	71.970	582.400
X		0.000	71.150	69.690	34.537%	14.900	15.770	70.790	581.100
σ		0.000	0.549	0.486	0.372%	0.577	0.258	2.017	6.993
%RSD		0.000	0.772	0.698	1.077	3.870	1.633	2.850	1.203
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:35:15	26.636%	23220.000	23.350	20.120	386.000	390.900	46.194%	46.488%
2	00:35:23	26.057%	23790.000	24.600	20.840	400.300	392.800	46.645%	46.416%
3	00:35:31	26.638%	23550.000	24.170	20.410	397.600	394.600	46.243%	46.556%
X		26.444%	23520.000	24.040	20.460	394.600	392.800	46.360%	46.487%
σ		0.335%	286.500	0.638	0.362	7.634	1.847	0.247%	0.070%
%RSD		1.267	1.218	2.652	1.768	1.934	0.470	0.534	0.150
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:35:15	1.395	1.433	1563.000	1441.000	1511.000	39.036%		
2	00:35:23	1.493	1.406	1559.000	1438.000	1506.000	40.498%		
3	00:35:31	1.547	1.394	1560.000	1440.000	1508.000	40.825%		
X		1.478	1.411	1561.000	1440.000	1508.000	40.120%		
σ		0.077	0.020	2.127	1.965	2.570	0.953%		
%RSD		5.211	1.407	0.136	0.137	0.170	2.374		

180-37760-B-9-A 11/6/2014 12:41:13 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	64.599%	1.514	60.380	60.530	0.000	14400.000	5919.000	5923.000
2	00:40:29	62.730%	1.393	58.390	54.510	0.000	14700.000	6077.000	6068.000
3	00:40:37	63.160%	1.704	49.300	50.030	0.000	14510.000	5981.000	5974.000
X		63.496%	1.537	56.020	55.020	0.000	14530.000	5992.000	5988.000
σ		0.979%	0.157	5.907	5.271	0.000	154.000	79.470	73.340
%RSD		1.542	10.200	10.540	9.580	0.000	1.060	1.326	1.225
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	11200.000	5813.000	0.000	2609.000	79690.000	80570.000	43.285%	785.600
2	00:40:29	11360.000	6033.000	0.000	2672.000	81850.000	83850.000	42.402%	799.100
3	00:40:37	11260.000	6156.000	0.000	2684.000	83410.000	84510.000	42.661%	806.400
X		11270.000	6001.000	0.000	2655.000	81650.000	82980.000	42.783%	797.000
σ		82.650	173.800	0.000	39.790	1865.000	2112.000	0.454%	10.540
%RSD		0.733	2.897	0.000	1.499	2.284	2.545	1.061	1.323
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	512.100	3519.000	2672.000	500200.000	491600.000	49.720	137.200	428.300
2	00:40:29	509.400	3532.000	2770.000	505800.000	496000.000	50.590	141.500	427.200
3	00:40:37	507.400	3507.000	2781.000	503300.000	492600.000	50.920	138.200	429.800
X		509.600	3520.000	2741.000	503100.000	493400.000	50.410	139.000	428.400
σ		2.372	12.900	59.690	2815.000	2301.000	0.623	2.269	1.328
%RSD		0.465	0.367	2.178	0.560	0.466	1.236	1.633	0.310
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	442.800	8595.000	8593.000	84.900	4.045	10.210	0.000	489.400
2	00:40:29	449.800	8560.000	8648.000	84.660	3.828	1.388	0.000	491.100
3	00:40:37	440.700	8565.000	8610.000	83.190	3.542	10.450	0.000	486.200
X		444.400	8574.000	8617.000	84.250	3.805	7.350	0.000	488.900
σ		4.751	19.140	27.770	0.923	0.252	5.165	0.000	2.487
%RSD		1.069	0.223	0.322	1.095	6.631	70.270	0.000	0.509
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	0.000	30.650	29.820	37.260%	3.691	3.827	44.160	138.300
2	00:40:29	0.000	28.970	31.080	37.548%	3.827	3.751	41.030	140.900
3	00:40:37	0.000	29.860	28.260	37.541%	3.844	3.909	41.320	137.400
X		0.000	29.830	29.720	37.450%	3.788	3.829	42.170	138.800
σ		0.000	0.842	1.411	0.164%	0.084	0.079	1.726	1.809
%RSD		0.000	2.824	4.749	0.439	2.212	2.063	4.094	1.303
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:40:21	33.731%	3987.000	11.590	10.540	118.600	114.900	47.917%	48.408%
2	00:40:29	33.781%	4017.000	11.720	10.610	116.300	115.900	47.434%	48.738%
3	00:40:37	33.781%	3993.000	12.140	10.820	118.600	114.500	48.175%	48.713%
X		33.764%	3999.000	11.820	10.660	117.900	115.100	47.842%	48.620%
σ		0.029%	16.030	0.286	0.145	1.316	0.755	0.376%	0.184%
%RSD		0.085	0.401	2.421	1.363	1.116	0.656	0.786	0.378
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:40:21	1.053	0.965	630.700	589.600	611.800	48.179%		
2	00:40:29	1.120	1.084	637.700	593.900	616.900	48.186%		
3	00:40:37	1.099	0.922	634.100	593.700	614.500	48.845%		
X		1.091	0.990	634.100	592.400	614.400	48.403%		
σ		0.035	0.084	3.477	2.458	2.570	0.383%		
%RSD		3.169	8.491	0.548	0.415	0.418	0.791		

180-37760-B-10-B 11/6/2014 12:46:19 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	59.634%	1.655	143.700	154.000	0.000	28180.000	19740.000	19910.000
2	00:45:33	59.672%	2.314	137.400	145.400	0.000	28180.000	19680.000	19740.000
3	00:45:41	58.193%	1.999	129.400	145.600	0.000	28900.000	19990.000	19910.000
X		59.166%	1.989	136.800	148.400	0.000	28420.000	19810.000	19850.000
σ		0.843%	0.330	7.175	4.879	0.000	415.800	167.300	100.700
%RSD		1.425	16.570	5.245	3.289	0.000	1.463	0.845	0.507
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	20580.000	11820.000	0.000	3556.000	126300.000	139800.000	41.651%	1147.000
2	00:45:33	20730.000	12050.000	0.000	3610.000	131000.000	144600.000	41.176%	1184.000
3	00:45:41	20920.000	12280.000	0.000	3682.000	134000.000	147700.000	40.741%	1207.000
X		20740.000	12050.000	0.000	3616.000	130400.000	144000.000	41.190%	1179.000
σ		172.500	231.800	0.000	62.810	3893.000	3946.000	0.455%	30.240
%RSD		0.831	1.924	0.000	1.737	2.985	2.740	1.104	2.564
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	1009.000	6993.000	8882.000	1399000.000	1375000.000	77.290	516.700	947.400
2	00:45:33	1018.000	7068.000	9222.000	1420000.000	1391000.000	78.160	518.900	952.400
3	00:45:41	1020.000	7049.000	9392.000	1412000.000	1378000.000	76.940	511.800	936.300
X		1016.000	7037.000	9165.000	1410000.000	1381000.000	77.460	515.800	945.300
σ		5.967	39.140	259.700	10620.000	8538.000	0.626	3.620	8.238
%RSD		0.588	0.556	2.833	0.753	0.618	0.809	0.702	0.872
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	979.200	9424.000	9472.000	140.600	5.695	4.642	0.000	438.200
2	00:45:33	987.100	9362.000	9522.000	138.300	5.913	10.700	0.000	437.400
3	00:45:41	976.500	9301.000	9406.000	138.600	6.061	5.169	0.000	433.200
X		980.900	9362.000	9466.000	139.200	5.889	6.836	0.000	436.300
σ		5.487	61.140	58.260	1.262	0.184	3.353	0.000	2.676
%RSD		0.559	0.653	0.615	0.907	3.126	49.060	0.000	0.613
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	0.000	93.170	89.260	31.743%	7.292	8.234	23.090	158.000
2	00:45:33	0.000	93.050	89.660	31.862%	7.534	7.373	22.240	156.100
3	00:45:41	0.000	91.210	89.180	32.126%	7.522	7.697	21.790	157.200
X		0.000	92.480	89.360	31.910%	7.449	7.768	22.370	157.100
σ		0.000	1.100	0.261	0.196%	0.136	0.435	0.664	0.941
%RSD		0.000	1.190	0.292	0.613	1.831	5.601	2.970	0.599
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:45:26	27.349%	5822.000	73.730	71.730	432.900	434.500	42.572%	42.445%
2	00:45:33	28.027%	5710.000	70.600	70.020	412.100	420.400	43.192%	43.562%
3	00:45:41	27.943%	5742.000	70.420	68.540	427.200	422.300	42.943%	43.459%
X		27.773%	5758.000	71.580	70.100	424.100	425.700	42.902%	43.155%
σ		0.370%	57.800	1.863	1.597	10.700	7.670	0.312%	0.617%
%RSD		1.331	1.004	2.603	2.278	2.523	1.802	0.726	1.431
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:45:26	1.550	1.373	636.200	586.400	607.000	35.636%		
2	00:45:33	1.221	1.351	629.500	586.500	605.200	36.305%		
3	00:45:41	1.477	1.367	622.300	576.500	597.100	37.225%		
X		1.416	1.364	629.400	583.100	603.100	36.389%		
σ		0.173	0.011	6.919	5.743	5.250	0.798%		
%RSD		12.200	0.828	1.099	0.985	0.870	2.193		

180-37760-B-11-A 11/6/2014 12:51:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	59.276%	1.633	139.800	140.100	0.000	48080.000	32200.000	32190.000
2	00:50:41	57.297%	1.774	135.700	137.900	0.000	48750.000	32410.000	32410.000
3	00:50:48	56.605%	1.831	139.200	134.800	0.000	49010.000	32650.000	32880.000
X		57.726%	1.746	138.300	137.600	0.000	48620.000	32420.000	32490.000
σ		1.386%	0.102	2.224	2.674	0.000	479.300	224.300	353.800
%RSD		2.402	5.845	1.609	1.943	0.000	0.986	0.692	1.089
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	24170.000	18570.000	0.000	5335.000	417300.000	456800.000	39.526%	1139.000
2	00:50:41	24560.000	18890.000	0.000	5472.000	430400.000	473100.000	39.215%	1159.000
3	00:50:48	24690.000	19040.000	0.000	5549.000	438700.000	482200.000	39.303%	1182.000
X		24470.000	18830.000	0.000	5452.000	428800.000	470700.000	39.348%	1160.000
σ		267.900	243.600	0.000	108.300	10790.000	12880.000	0.160%	21.830
%RSD		1.095	1.294	0.000	1.987	2.517	2.736	0.407	1.882
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	1376.000	15920.000	9269.000	1191000.000	1157000.000	85.010	705.500	1449.000
2	00:50:41	1392.000	16070.000	9497.000	1196000.000	1168000.000	86.910	712.800	1455.000
3	00:50:48	1414.000	15960.000	9671.000	1190000.000	1163000.000	85.940	710.000	1445.000
X		1394.000	15980.000	9479.000	1192000.000	1163000.000	85.950	709.400	1449.000
σ		19.020	75.760	201.700	3252.000	5442.000	0.950	3.711	5.187
%RSD		1.364	0.474	2.128	0.273	0.468	1.105	0.523	0.358
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	1506.000	9415.000	9487.000	131.900	8.660	4.563	0.000	780.000
2	00:50:41	1504.000	9436.000	9510.000	131.900	7.673	16.090	0.000	781.300
3	00:50:48	1495.000	9280.000	9361.000	131.300	8.896	17.930	0.000	780.500
X		1502.000	9377.000	9453.000	131.700	8.410	12.860	0.000	780.600
σ		5.752	84.450	80.390	0.347	0.649	7.243	0.000	0.658
%RSD		0.383	0.901	0.851	0.264	7.719	56.330	0.000	0.084
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	0.000	96.550	92.920	33.598%	29.310	30.560	33.640	211.800
2	00:50:41	0.000	98.040	90.130	33.549%	29.100	30.790	35.020	214.200
3	00:50:48	0.000	96.810	93.810	33.831%	29.870	31.020	36.150	211.100
X		0.000	97.130	92.290	33.660%	29.430	30.790	34.930	212.400
σ		0.000	0.794	1.919	0.151%	0.395	0.230	1.256	1.609
%RSD		0.000	0.817	2.079	0.448	1.344	0.746	3.595	0.758
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:50:33	29.361%	7662.000	45.580	44.750	621.100	614.400	43.149%	43.821%
2	00:50:41	29.420%	7645.000	45.590	44.900	634.100	626.000	42.574%	43.770%
3	00:50:48	29.745%	7628.000	45.030	43.570	622.800	618.000	43.621%	43.954%
X		29.509%	7645.000	45.400	44.410	626.000	619.500	43.115%	43.848%
σ		0.206%	16.960	0.323	0.728	7.088	5.933	0.525%	0.095%
%RSD		0.700	0.222	0.711	1.638	1.132	0.958	1.217	0.217
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:50:33	1.760	1.625	832.400	770.200	804.100	43.026%		
2	00:50:41	1.588	1.624	824.900	756.400	793.400	43.763%		
3	00:50:48	1.715	1.760	832.500	770.700	804.500	43.532%		
X		1.688	1.669	829.900	765.800	800.700	43.441%		
σ		0.089	0.078	4.304	8.128	6.290	0.377%		
%RSD		5.297	4.681	0.519	1.061	0.786	0.868		

180-37760-C-12-A 11/6/2014 12:56:35 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	58.389%	3.124	216.700	218.800	0.000	39710.000	37920.000	37940.000
2	00:55:49	55.812%	3.381	214.600	221.100	0.000	40900.000	38940.000	38950.000
3	00:55:56	55.991%	3.012	213.300	217.400	0.000	40940.000	38970.000	38970.000
X		56.731%	3.173	214.800	219.100	0.000	40520.000	38610.000	38620.000
σ		1.439%	0.189	1.713	1.861	0.000	702.100	597.500	590.200
%RSD		2.536	5.966	0.797	0.849	0.000	1.733	1.547	1.528
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	31010.000	9258.000	0.000	6825.000	417500.000	459100.000	38.743%	1906.000
2	00:55:49	31900.000	9475.000	0.000	6953.000	426000.000	470100.000	38.287%	1939.000
3	00:55:56	31980.000	9657.000	0.000	7079.000	439500.000	484700.000	37.635%	1999.000
X		31630.000	9463.000	0.000	6953.000	427700.000	471300.000	38.222%	1948.000
σ		536.800	199.800	0.000	126.900	11060.000	12830.000	0.557%	47.130
%RSD		1.697	2.111	0.000	1.826	2.586	2.721	1.458	2.420
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	1748.000	13040.000	16400.000	2164000.000	2117000.000	127.600	865.700	1676.000
2	00:55:49	1770.000	13220.000	16800.000	2173000.000	2130000.000	125.700	862.600	1692.000
3	00:55:56	1782.000	13340.000	17260.000	2198000.000	2150000.000	126.100	862.700	1670.000
X		1767.000	13200.000	16820.000	2178000.000	2132000.000	126.500	863.700	1680.000
σ		17.240	149.200	427.400	17780.000	16640.000	0.986	1.741	11.530
%RSD		0.976	1.130	2.541	0.816	0.780	0.779	0.202	0.686
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	1721.000	17960.000	18180.000	195.000	9.811	15.340	0.000	988.000
2	00:55:49	1736.000	18090.000	18190.000	195.400	9.213	3.993	0.000	989.900
3	00:55:56	1723.000	17850.000	18170.000	191.900	10.630	10.630	0.000	987.700
X		1727.000	17970.000	18180.000	194.100	9.883	9.987	0.000	988.500
σ		8.324	122.700	5.448	1.908	0.709	5.700	0.000	1.180
%RSD		0.482	0.683	0.030	0.983	7.172	57.080	0.000	0.119
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	0.000	151.100	143.300	26.757%	18.000	18.400	50.050	276.000
2	00:55:49	0.000	149.600	146.100	26.692%	18.920	18.600	48.980	269.000
3	00:55:56	0.000	152.200	146.300	27.007%	18.320	19.460	48.710	273.300
X		0.000	151.000	145.300	26.819%	18.410	18.820	49.250	273.000
σ		0.000	1.284	1.669	0.167%	0.468	0.562	0.710	3.778
%RSD		0.000	0.850	1.149	0.621	2.543	2.986	1.442	1.384
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	00:55:41	22.602%	9627.000	66.240	65.710	712.600	719.700	37.610%	38.402%
2	00:55:49	23.283%	9369.000	64.950	63.000	690.000	700.600	37.596%	38.161%
3	00:55:56	22.865%	9650.000	66.250	65.830	712.300	708.100	37.689%	38.314%
X		22.916%	9549.000	65.810	64.850	705.000	709.500	37.632%	38.293%
σ		0.344%	156.300	0.748	1.603	12.930	9.646	0.051%	0.122%
%RSD		1.499	1.637	1.137	2.472	1.834	1.360	0.134	0.319
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	00:55:41	2.627	2.495	1215.000	1119.000	1164.000	31.071%		
2	00:55:49	2.421	2.503	1223.000	1135.000	1178.000	31.426%		
3	00:55:56	2.635	2.438	1227.000	1118.000	1173.000	31.863%		
X		2.561	2.479	1222.000	1124.000	1172.000	31.453%		
σ		0.122	0.035	6.042	9.339	6.934	0.397%		
%RSD		4.744	1.427	0.495	0.831	0.592	1.261		



180-37760-B-13-B 11/6/2014 1:01:40 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	58.365%	3.567	247.700	252.700	0.000	44200.000	37780.000	37840.000
2	01:00:56	57.621%	3.466	246.700	243.500	0.000	44350.000	37950.000	37990.000
3	01:01:04	56.550%	3.450	236.900	245.200	0.000	44830.000	38320.000	38370.000
X		57.512%	3.494	243.800	247.100	0.000	44460.000	38020.000	38070.000
σ		0.913%	0.064	5.972	4.884	0.000	327.100	278.800	268.600
%RSD		1.587	1.817	2.450	1.976	0.000	0.736	0.734	0.706
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	32900.000	10110.000	0.000	6526.000	385500.000	425000.000	38.896%	1894.000
2	01:00:56	33020.000	10450.000	0.000	6625.000	396600.000	438000.000	38.268%	1931.000
3	01:01:04	33580.000	10530.000	0.000	6726.000	401500.000	446700.000	38.090%	1968.000
X		33170.000	10360.000	0.000	6626.000	394500.000	436600.000	38.418%	1931.000
σ		364.100	225.700	0.000	100.100	8185.000	10920.000	0.423%	36.760
%RSD		1.098	2.178	0.000	1.511	2.075	2.500	1.101	1.903
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	2014.000	16350.000	18330.000	2492000.000	2445000.000	137.000	1092.000	1859.000
2	01:00:56	2041.000	16460.000	18900.000	2504000.000	2441000.000	138.200	1093.000	1851.000
3	01:01:04	2065.000	16580.000	19280.000	2503000.000	2452000.000	137.700	1095.000	1864.000
X		2040.000	16470.000	18840.000	2500000.000	2446000.000	137.600	1093.000	1858.000
σ		25.500	114.400	476.800	6886.000	5389.000	0.603	1.544	6.502
%RSD		1.250	0.695	2.531	0.276	0.220	0.438	0.141	0.350
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	1884.000	18360.000	18420.000	236.400	10.740	22.230	0.000	1015.000
2	01:00:56	1909.000	18430.000	18570.000	234.500	10.370	18.800	0.000	1009.000
3	01:01:04	1907.000	18510.000	18620.000	236.700	11.110	18.570	0.000	1005.000
X		1900.000	18430.000	18540.000	235.800	10.740	19.870	0.000	1010.000
σ		13.590	74.940	106.900	1.205	0.372	2.051	0.000	5.187
%RSD		0.715	0.407	0.577	0.511	3.466	10.320	0.000	0.514
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	0.000	183.800	180.100	29.734%	21.630	21.320	49.200	379.200
2	01:00:56	0.000	182.100	177.600	29.968%	20.670	22.780	52.150	372.700
3	01:01:04	0.000	184.300	176.000	29.479%	21.430	21.910	49.050	374.900
X		0.000	183.400	177.900	29.727%	21.250	22.000	50.140	375.600
σ		0.000	1.148	2.069	0.245%	0.506	0.736	1.747	3.278
%RSD		0.000	0.626	1.163	0.823	2.379	3.343	3.484	0.873
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:00:48	24.518%	14480.000	79.900	75.340	847.200	835.600	39.554%	40.386%
2	01:00:56	24.617%	14380.000	79.230	75.910	824.000	829.300	39.885%	40.451%
3	01:01:04	24.213%	14490.000	78.890	78.060	836.300	834.300	39.467%	40.174%
X		24.449%	14450.000	79.340	76.440	835.800	833.100	39.635%	40.337%
σ		0.211%	61.380	0.517	1.438	11.600	3.292	0.221%	0.145%
%RSD		0.861	0.425	0.652	1.881	1.387	0.395	0.557	0.359
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:00:48	2.430	2.899	1320.000	1220.000	1280.000	37.835%		
2	01:00:56	2.843	2.883	1315.000	1222.000	1279.000	38.062%		
3	01:01:04	2.731	2.688	1323.000	1222.000	1285.000	37.707%		
X		2.668	2.823	1319.000	1221.000	1281.000	37.868%		
σ		0.214	0.118	4.057	1.260	3.204	0.180%		
%RSD		8.015	4.168	0.308	0.103	0.250	0.474		

CCV 1369903 11/6/2014 1:06:46 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	68.270%	77.490	110.600	107.100	0.000	44550.000	38470.000	38430.000
2	01:06:02	67.455%	80.760	102.800	99.180	0.000	45350.000	39330.000	39290.000
3	01:06:10	66.544%	82.310	97.630	100.200	0.000	45370.000	39040.000	38890.000
X		67.423%	80.186%	103.685%	102.154%	0.000	90.185%	77.894%	77.733%
σ		0.863%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.280	3.071	6.290	4.185	0.000	1.036	1.124	1.110
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	429.800	5530.000	0.000	61630.000	51860.000	52160.000	38.723%	114.100
2	01:06:02	436.700	5699.000	0.000	63500.000	54820.000	54320.000	38.245%	115.200
3	01:06:10	432.000	5731.000	0.000	63600.000	55260.000	55100.000	38.543%	117.100
X		86.567%	113.066%	0.000	125.823%	107.955%	107.720%	38.504%	115.489%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.242%	n/a
%RSD		0.821	1.913	0.000	1.764	3.421	2.835	0.628	1.313
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	91.070	111.900	554.400	29340.000	25260.000	94.480	93.810	103.400
2	01:06:02	94.240	114.200	576.400	29730.000	25540.000	96.380	94.370	105.000
3	01:06:10	92.460	111.000	582.400	29150.000	24850.000	93.760	96.150	105.200
X		92.589%	112.335%	114.217%	117.637%	100.862%	94.875%	94.778%	104.493%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.713	1.478	2.576	1.005	1.385	1.427	1.292	0.937
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	104.300	128.100	129.100	93.750	89.910	95.020	0.000	88.800
2	01:06:02	110.500	125.700	121.000	93.530	95.180	89.280	0.000	88.490
3	01:06:10	105.800	118.600	113.700	92.110	88.500	92.700	0.000	85.300
X		106.882%	124.136%	121.265%	93.128%	91.197%	92.333%	0.000	87.530%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.040	3.969	6.372	0.955	3.861	3.127	0.000	2.214
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	36.946%	104.500	106.500	25.831%	107.500	109.000	110.200	113.100
2	01:06:02	38.245%	106.800	110.200	26.433%	106.300	108.600	106.900	114.000
3	01:06:10	39.102%	106.400	108.400	27.104%	104.100	108.100	110.200	113.900
X		38.098%	105.911%	108.338%	26.456%	105.958%	108.557%	109.115%	113.684%
σ		1.085%	n/a	n/a	0.637%	n/a	n/a	n/a	n/a
%RSD		2.849	1.170	1.700	2.407	1.637	0.389	1.746	0.459
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:05:54	25.654%	125.700	105.400	104.500	99.940	103.400	38.708%	38.939%
2	01:06:02	25.904%	124.900	107.600	105.100	99.740	102.700	39.381%	40.074%
3	01:06:10	26.954%	118.600	105.500	104.400	98.210	100.700	39.953%	40.735%
X		26.171%	123.090%	106.173%	104.653%	99.297%	102.291%	39.348%	39.916%
σ		0.690%	n/a	n/a	n/a	n/a	n/a	0.623%	0.909%
%RSD		2.636	3.175	1.132	0.334	0.955	1.352	1.584	2.276
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:05:54	112.500	108.400	116.900	117.200	116.200	33.135%		
2	01:06:02	113.000	108.500	115.700	116.200	115.800	34.305%		
3	01:06:10	113.500	108.000	112.000	117.200	114.600	35.609%		
X		113.003%	108.292%	114.871%	116.859%	115.530%	34.350%		
σ		n/a	n/a	n/a	n/a	n/a	1.238%		
%RSD		0.432	0.207	2.263	0.516	0.743	3.604		

CCB9 11/6/2014 1:15:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	75.104%	-0.377	8.973	7.112	0.000	-141.300	39.180	22.070
2	01:15:09	74.868%	-0.369	1.283	0.670	0.000	-146.400	35.120	29.580
3	01:15:16	74.635%	-0.432	-5.432	-3.454	0.000	-148.700	31.640	25.870
X		74.869%	-0.392	1.608	1.443	0.000	-145.500	35.310	25.840
σ		0.235%	0.034	7.208	5.325	0.000	3.781	3.773	3.757
%RSD		0.313	8.702	448.200	369.100	0.000	2.599	10.690	14.540
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	10.520	80.920	0.000	35.830	122.300	156.400	60.936%	0.817
2	01:15:09	12.290	48.250	0.000	32.280	184.000	187.800	59.903%	0.800
3	01:15:16	11.240	32.660	0.000	35.150	169.300	184.500	59.673%	0.638
X		11.350	53.950	0.000	34.420	158.500	176.300	60.171%	0.751
σ		0.893	24.630	0.000	1.884	32.190	17.240	0.673%	0.099
%RSD		7.871	45.660	0.000	5.475	20.300	9.780	1.118	13.150
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	0.525	4.113	5.674	640.700	557.600	-0.017	0.295	3.036
2	01:15:09	0.657	4.282	6.178	637.700	536.900	-0.022	0.185	2.767
3	01:15:16	0.480	3.859	6.355	562.100	505.200	-0.004	0.279	2.865
X		0.554	4.084	6.069	613.500	533.200	-0.014	0.253	2.889
σ		0.092	0.213	0.353	44.570	26.400	0.009	0.059	0.136
%RSD		16.620	5.209	5.822	7.264	4.951	64.710	23.480	4.696
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	3.094	4.592	4.944	0.037	-0.008	2.700	0.000	0.509
2	01:15:09	2.521	4.803	5.804	0.051	-0.006	5.983	0.000	0.402
3	01:15:16	2.793	4.230	4.356	0.034	0.024	2.019	0.000	0.374
X		2.803	4.542	5.035	0.040	0.003	3.567	0.000	0.428
σ		0.287	0.290	0.729	0.009	0.018	2.119	0.000	0.071
%RSD		10.230	6.375	14.470	22.600	542.300	59.410	0.000	16.630
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	68.314%	0.156	0.196	57.192%	-0.118	-0.050	0.035	0.237
2	01:15:09	67.914%	0.116	0.183	54.959%	-0.134	-0.055	0.092	0.133
3	01:15:16	66.919%	0.049	0.115	53.529%	-0.141	-0.062	0.017	0.136
X		67.716%	0.107	0.165	55.227%	-0.131	-0.055	0.048	0.168
σ		0.718%	0.054	0.044	1.846%	0.012	0.006	0.039	0.060
%RSD		1.060	50.370	26.520	3.343	9.112	11.140	81.620	35.340
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:15:01	47.861%	2.982	-0.200	-0.990	0.465	0.610	56.620%	57.120%
2	01:15:09	46.200%	2.878	-0.149	-0.980	0.591	0.387	55.973%	57.301%
3	01:15:16	45.412%	2.580	-0.148	-1.058	0.169	0.345	55.024%	55.515%
X		46.491%	2.813	-0.166	-1.009	0.408	0.448	55.872%	56.645%
σ		1.250%	0.209	0.029	0.043	0.217	0.142	0.803%	0.983%
%RSD		2.689	7.416	17.760	4.230	53.110	31.830	1.437	1.735
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:15:01	0.078	0.055	0.766	0.635	0.687	57.621%		
2	01:15:09	0.087	0.069	0.726	0.661	0.722	53.991%		
3	01:15:16	0.055	0.052	0.662	0.592	0.620	50.165%		
X		0.073	0.059	0.718	0.629	0.676	53.926%		
σ		0.016	0.009	0.053	0.035	0.052	3.729%		
%RSD		22.480	15.240	7.337	5.569	7.642	6.914		

180-37760-B-14-B 11/6/2014 1:21:01 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	64.515%	0.865	125.000	129.300	0.000	36580.000	35030.000	35410.000
2	01:20:16	62.458%	0.956	121.100	124.500	0.000	37490.000	36090.000	36370.000
3	01:20:24	62.674%	0.975	123.300	117.900	0.000	37570.000	36020.000	36440.000
X		63.216%	0.932	123.100	123.900	0.000	37210.000	35710.000	36070.000
σ		1.130%	0.059	1.961	5.764	0.000	552.200	596.900	575.000
%RSD		1.788	6.298	1.593	4.652	0.000	1.484	1.671	1.594
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	15350.000	14500.000	0.000	3202.000	271600.000	303600.000	40.392%	618.200
2	01:20:16	15820.000	14780.000	0.000	3078.000	280900.000	312800.000	39.861%	653.300
3	01:20:24	15920.000	14760.000	0.000	3271.000	284600.000	315100.000	39.595%	649.100
X		15700.000	14680.000	0.000	3184.000	279000.000	310500.000	39.949%	640.200
σ		304.800	154.600	0.000	97.840	6717.000	6095.000	0.406%	19.160
%RSD		1.942	1.054	0.000	3.073	2.408	1.963	1.015	2.992
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	1395.000	17630.000	9527.000	1162000.000	1137000.000	84.500	1102.000	3104.000
2	01:20:16	1412.000	17870.000	9802.000	1183000.000	1153000.000	85.540	1119.000	3153.000
3	01:20:24	1469.000	17960.000	9934.000	1180000.000	1154000.000	83.700	1119.000	3155.000
X		1425.000	17820.000	9754.000	1175000.000	1148000.000	84.580	1114.000	3137.000
σ		38.690	171.100	207.600	11160.000	9619.000	0.926	9.807	28.770
%RSD		2.715	0.960	2.129	0.950	0.838	1.095	0.881	0.917
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	3210.000	62220.000	63190.000	176.500	8.925	5.515	0.000	921.800
2	01:20:16	3247.000	62780.000	64070.000	175.800	9.608	3.660	0.000	915.900
3	01:20:24	3223.000	62890.000	63860.000	176.300	8.675	3.647	0.000	916.300
X		3227.000	62630.000	63710.000	176.200	9.069	4.274	0.000	918.000
σ		18.660	355.500	458.300	0.359	0.483	1.075	0.000	3.282
%RSD		0.578	0.568	0.719	0.204	5.320	25.150	0.000	0.358
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	0.000	132.100	129.700	29.078%	32.780	32.520	307.300	485.900
2	01:20:16	0.000	131.500	129.600	29.204%	33.280	34.860	318.800	512.400
3	01:20:24	0.000	132.700	126.600	29.549%	33.490	33.750	312.100	495.300
X		0.000	132.100	128.600	29.277%	33.190	33.710	312.700	497.900
σ		0.000	0.626	1.770	0.244%	0.363	1.169	5.764	13.460
%RSD		0.000	0.474	1.376	0.833	1.094	3.468	1.843	2.703
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:20:09	29.161%	7462.000	47.870	45.450	926.700	926.700	42.287%	42.474%
2	01:20:16	28.022%	7815.000	49.660	48.550	952.200	945.600	43.110%	42.824%
3	01:20:24	29.495%	7603.000	48.880	46.140	936.600	933.300	42.572%	42.432%
X		28.893%	7627.000	48.800	46.710	938.500	935.200	42.657%	42.577%
σ		0.772%	177.600	0.899	1.628	12.880	9.602	0.418%	0.215%
%RSD		2.673	2.328	1.841	3.485	1.372	1.027	0.980	0.505
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:20:09	1.389	1.334	1906.000	1755.000	1850.000	41.499%		
2	01:20:16	1.419	1.421	1904.000	1757.000	1858.000	42.477%		
3	01:20:24	1.438	1.404	1915.000	1773.000	1868.000	42.980%		
X		1.415	1.386	1909.000	1762.000	1859.000	42.319%		
σ		0.025	0.046	5.490	9.905	9.097	0.753%		
%RSD		1.760	3.346	0.288	0.562	0.489	1.780		

180-37760-B-14-B SD@5

11/6/2014 1:26:09 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	68.881%	-0.166	34.370	39.640	0.000	6546.000	7347.000	7289.000
2	01:25:23	67.427%	-0.118	30.030	30.610	0.000	6626.000	7459.000	7367.000
3	01:25:31	67.658%	-0.259	22.300	23.620	0.000	6614.000	7453.000	7375.000
X		67.989%	-0.181	28.900	31.290	0.000	6595.000	7420.000	7344.000
σ		0.781%	0.072	6.110	8.030	0.000	43.180	63.160	47.370
%RSD		1.149	39.780	21.140	25.660	0.000	0.655	0.851	0.645
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	3010.000	2899.000	0.000	651.100	51320.000	51300.000	43.442%	121.500
2	01:25:23	3003.000	2968.000	0.000	687.900	55080.000	54620.000	42.745%	126.400
3	01:25:31	3048.000	2962.000	0.000	701.200	55630.000	55610.000	42.744%	129.000
X		3020.000	2943.000	0.000	680.100	54010.000	53840.000	42.977%	125.600
σ		23.860	38.190	0.000	25.980	2342.000	2254.000	0.403%	3.828
%RSD		0.790	1.298	0.000	3.820	4.336	4.186	0.937	3.047
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	226.600	3355.000	1829.000	239300.000	232500.000	17.630	234.300	645.900
2	01:25:23	226.000	3361.000	1935.000	241200.000	234800.000	17.460	229.300	653.000
3	01:25:31	226.600	3380.000	1959.000	242100.000	234500.000	17.330	230.200	647.800
X		226.400	3365.000	1908.000	240900.000	233900.000	17.470	231.200	648.900
σ		0.344	13.510	69.200	1466.000	1263.000	0.151	2.703	3.666
%RSD		0.152	0.402	3.628	0.609	0.540	0.863	1.169	0.565
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	665.600	13470.000	13540.000	35.910	1.338	-7.074	0.000	180.700
2	01:25:23	673.700	13590.000	13730.000	36.070	1.538	2.360	0.000	183.500
3	01:25:31	669.200	13740.000	13870.000	37.240	1.263	-7.576	0.000	184.000
X		669.500	13600.000	13710.000	36.410	1.380	-4.096	0.000	182.700
σ		4.064	136.100	162.900	0.725	0.142	5.597	0.000	1.772
%RSD		0.607	1.000	1.188	1.991	10.290	136.600	0.000	0.970
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	0.000	26.800	24.520	33.038%	5.658	6.141	60.240	99.270
2	01:25:23	0.000	26.090	25.320	31.834%	6.119	6.813	62.610	97.580
3	01:25:31	0.000	24.840	25.240	30.751%	6.404	6.788	63.760	99.610
X		0.000	25.910	25.030	31.874%	6.060	6.581	62.200	98.820
σ		0.000	0.993	0.442	1.144%	0.376	0.381	1.796	1.083
%RSD		0.000	3.834	1.766	3.589	6.207	5.790	2.888	1.096
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:25:16	32.897%	1448.000	9.326	8.579	184.300	190.300	44.789%	45.242%
2	01:25:23	31.847%	1456.000	9.594	8.757	192.500	193.500	44.562%	45.323%
3	01:25:31	30.812%	1464.000	9.162	8.031	193.100	189.500	44.352%	44.236%
X		31.852%	1456.000	9.360	8.455	189.900	191.100	44.568%	44.934%
σ		1.042%	7.909	0.218	0.378	4.908	2.092	0.218%	0.606%
%RSD		3.273	0.543	2.331	4.475	2.584	1.094	0.490	1.348
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:25:16	0.299	0.345	374.100	343.900	356.700	48.335%		
2	01:25:23	0.336	0.308	377.900	354.000	362.300	46.185%		
3	01:25:31	0.357	0.316	376.200	349.800	358.900	44.580%		
X		0.331	0.323	376.000	349.200	359.300	46.367%		
σ		0.029	0.020	1.893	5.075	2.818	1.884%		
%RSD		8.899	6.124	0.504	1.453	0.784	4.064		

CRI 1370008 11/6/2014 1:36:20 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	58.942%	0.469	22.880	21.660	0.000	-27.150	88.570	84.460
2	01:35:36	58.310%	0.580	13.110	11.170	0.000	-20.100	91.620	86.800
3	01:35:43	57.805%	0.590	6.718	7.000	0.000	-16.400	103.400	91.140
X		58.353%	54.627%	284.749%	265.537%	0.000	-26.520%	94.528%	87.470%
σ		0.569%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.976	12.280	57.170	56.870	0.000	25.750	8.283	3.874
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	27.800	608.900	0.000	155.600	134.800	134.000	50.771%	4.510
2	01:35:36	32.440	590.200	0.000	153.600	170.500	140.000	50.533%	4.728
3	01:35:43	32.580	583.300	0.000	164.100	160.900	154.100	49.263%	4.612
X		103.132%	118.832%	0.000	157.737%	155.426%	142.709%	50.189%	92.335%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.811%	n/a
%RSD		8.794	2.231	0.000	3.530	11.880	7.215	1.616	2.358
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	0.983	5.805	6.112	364.900	322.600	0.352	0.972	5.993
2	01:35:36	1.498	6.045	6.578	371.900	340.100	0.435	0.732	5.909
3	01:35:43	1.305	5.847	7.024	350.900	294.200	0.467	0.976	5.915
X		126.173%	294.955%	131.425%	725.136%	637.948%	83.624%	89.325%	296.945%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		20.630	2.177	6.935	2.944	7.256	14.230	15.620	0.786
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	5.843	18.610	19.430	0.847	4.805	2.299	0.000	4.343
2	01:35:36	4.935	18.110	18.930	0.812	3.933	-0.214	0.000	4.649
3	01:35:43	5.636	16.770	17.320	0.903	4.514	4.997	0.000	4.409
X		273.567%	356.638%	371.188%	85.383%	88.349%	47.209%	0.000	89.338%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		8.702	5.351	5.960	5.361	10.060	110.400	0.000	3.604
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	50.307%	5.137	5.249	39.481%	0.863	0.955	0.699	1.300
2	01:35:36	51.011%	4.823	4.928	39.064%	0.791	0.880	1.413	1.351
3	01:35:43	50.832%	5.215	5.058	38.166%	0.962	0.832	1.323	1.100
X		50.717%	101.167%	101.569%	38.904%	87.191%	88.905%	114.499%	125.029%
σ		0.366%	n/a	n/a	0.672%	n/a	n/a	n/a	n/a
%RSD		0.721	4.097	3.184	1.727	9.851	6.988	33.940	10.620
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:35:28	39.298%	6.849	1.587	0.473	10.210	9.452	50.416%	51.459%
2	01:35:36	38.977%	7.797	1.462	0.918	9.336	9.378	51.434%	51.569%
3	01:35:43	38.183%	8.541	1.678	0.651	10.200	10.730	50.736%	50.872%
X		38.819%	154.579%	78.771%	34.040%	99.156%	98.523%	50.862%	51.300%
σ		0.574%	n/a	n/a	n/a	n/a	n/a	0.520%	0.374%
%RSD		1.479	10.970	6.872	32.890	5.064	7.701	1.023	0.730
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:35:28	0.926	0.854	1.491	1.220	1.310	72.319%		
2	01:35:36	0.808	0.805	1.243	1.310	1.250	71.553%		
3	01:35:43	0.915	0.824	1.345	1.097	1.294	67.372%		
X		88.302%	82.751%	135.958%	120.915%	128.484%	70.415%		
σ		n/a	n/a	n/a	n/a	n/a	2.663%		
%RSD		7.394	2.974	9.143	8.869	2.412	3.781		

CCV 1369903 11/6/2014 1:41:28 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	71.942%	79.240	104.900	108.700	0.000	44470.000	38680.000	38790.000
2	01:40:43	71.086%	83.550	103.200	102.500	0.000	45510.000	39540.000	39900.000
3	01:40:51	70.486%	85.080	106.000	101.600	0.000	46120.000	39820.000	40290.000
X		71.171%	82.626%	104.690%	104.253%	0.000	90.738%	78.694%	79.321%
σ		0.732%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.028	3.664	1.324	3.705	0.000	1.837	1.505	1.960
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	390.900	5452.000	0.000	58100.000	48350.000	48020.000	46.995%	97.040
2	01:40:43	405.700	5577.000	0.000	60010.000	50400.000	50350.000	46.194%	102.800
3	01:40:51	413.300	5750.000	0.000	61100.000	52090.000	52000.000	46.097%	107.500
X		80.663%	111.854%	0.000	119.469%	100.561%	100.246%	46.429%	102.453%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.493%	n/a
%RSD		2.823	2.675	0.000	2.545	3.728	3.987	1.062	5.124
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	91.350	93.370	472.600	26040.000	22520.000	94.070	92.750	96.710
2	01:40:43	91.780	96.820	498.200	26500.000	22760.000	95.120	96.730	99.860
3	01:40:51	92.730	98.720	510.700	26860.000	23250.000	95.030	95.560	99.730
X		91.954%	96.306%	98.765%	105.873%	91.378%	94.741%	95.013%	98.768%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.770	2.818	3.932	1.560	1.635	0.612	2.152	1.804
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	99.420	100.100	100.400	92.190	91.180	89.590	0.000	88.720
2	01:40:43	100.300	103.400	103.300	91.460	92.660	89.940	0.000	87.600
3	01:40:51	102.000	107.200	106.500	91.280	91.800	90.360	0.000	87.840
X		100.584%	103.572%	103.412%	91.645%	91.878%	89.962%	0.000	88.053%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.332	3.468	2.957	0.525	0.808	0.427	0.000	0.670
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	47.654%	102.300	102.100	34.867%	108.000	108.500	107.300	112.400
2	01:40:43	49.111%	101.700	106.900	35.938%	105.300	107.800	107.100	110.100
3	01:40:51	49.967%	105.000	108.000	37.161%	104.700	106.300	106.500	109.000
X		48.911%	103.001%	105.648%	35.989%	105.984%	107.537%	106.968%	110.523%
σ		1.169%	n/a	n/a	1.148%	n/a	n/a	n/a	n/a
%RSD		2.390	1.728	2.971	3.189	1.652	1.063	0.373	1.568
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:40:35	34.638%	107.900	107.900	105.700	103.900	103.600	48.213%	48.419%
2	01:40:43	36.120%	110.000	105.600	104.200	99.710	102.200	49.736%	49.958%
3	01:40:51	37.346%	108.800	104.600	105.700	97.590	99.900	50.427%	50.594%
X		36.035%	108.890%	106.031%	105.224%	100.392%	101.911%	49.459%	49.657%
σ		1.356%	n/a	n/a	n/a	n/a	n/a	1.133%	1.119%
%RSD		3.763	0.986	1.612	0.813	3.186	1.849	2.290	2.253
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:40:35	104.800	100.400	103.600	103.700	103.600	50.534%		
2	01:40:43	104.300	101.700	106.400	108.200	106.200	51.955%		
3	01:40:51	105.700	103.200	104.800	106.600	106.200	53.356%		
X		104.937%	101.765%	104.905%	106.170%	105.296%	51.949%		
σ		n/a	n/a	n/a	n/a	n/a	1.411%		
%RSD		0.696	1.390	1.347	2.153	1.432	2.716		

CCB10 11/6/2014 1:50:38 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	77.627%	-0.425	6.582	7.938	0.000	-157.400	25.010	15.640
2	01:49:53	77.859%	-0.391	0.057	1.443	0.000	-150.700	23.890	17.520
3	01:50:01	76.661%	-0.422	-3.477	-3.600	0.000	-145.100	25.750	17.470
X		77.382%	-0.413	1.054	1.927	0.000	-151.000	24.880	16.880
σ		0.635%	0.019	5.103	5.785	0.000	6.141	0.937	1.068
%RSD		0.821	4.499	484.100	300.200	0.000	4.066	3.767	6.331
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	1.170	68.290	0.000	-20.940	18.800	23.120	68.846%	0.220
2	01:49:53	2.655	39.010	0.000	-20.250	15.020	22.950	68.521%	0.135
3	01:50:01	3.158	21.770	0.000	-16.210	15.620	23.320	67.782%	0.109
X		2.327	43.020	0.000	-19.140	16.480	23.130	68.383%	0.155
σ		1.034	23.520	0.000	2.553	2.029	0.186	0.545%	0.058
%RSD		44.420	54.670	0.000	13.340	12.310	0.804	0.798	37.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	0.224	0.704	0.616	84.040	49.780	-0.054	-0.029	1.403
2	01:49:53	0.264	0.830	0.600	93.940	66.770	-0.035	0.026	1.474
3	01:50:01	0.317	1.012	0.588	101.000	78.630	-0.004	0.080	1.241
X		0.268	0.849	0.601	93.000	65.060	-0.031	0.026	1.373
σ		0.046	0.155	0.014	8.526	14.500	0.025	0.054	0.119
%RSD		17.210	18.270	2.361	9.168	22.290	80.670	211.600	8.691
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	1.284	1.520	1.862	-0.000	-0.069	2.133	0.000	0.275
2	01:49:53	1.485	1.830	2.483	-0.006	0.037	0.924	0.000	0.274
3	01:50:01	1.541	2.177	2.639	0.036	-0.018	2.750	0.000	0.268
X		1.436	1.843	2.328	0.010	-0.017	1.935	0.000	0.273
σ		0.135	0.329	0.411	0.023	0.053	0.929	0.000	0.004
%RSD		9.424	17.850	17.650	234.800	315.800	48.010	0.000	1.415
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	69.178%	0.304	0.335	56.515%	-0.091	-0.065	0.049	0.126
2	01:49:53	69.372%	0.232	0.143	57.377%	-0.129	-0.014	0.147	0.060
3	01:50:01	70.936%	0.224	0.088	58.792%	-0.095	-0.056	0.080	0.086
X		69.829%	0.254	0.189	57.561%	-0.105	-0.045	0.092	0.091
σ		0.964%	0.044	0.130	1.150%	0.021	0.027	0.050	0.034
%RSD		1.381	17.450	68.690	1.997	19.890	60.410	54.660	36.940
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	01:49:45	53.256%	-0.231	-0.122	-0.866	0.168	0.173	61.251%	60.546%
2	01:49:53	54.641%	-0.169	-0.181	-1.003	0.065	0.170	62.019%	62.389%
3	01:50:01	55.457%	0.070	-0.112	-0.979	0.209	0.139	63.528%	63.239%
X		54.451%	-0.110	-0.139	-0.950	0.147	0.160	62.266%	62.058%
σ		1.113%	0.159	0.037	0.073	0.074	0.019	1.158%	1.377%
%RSD		2.044	144.600	26.970	7.701	50.190	11.700	1.860	2.218
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	01:49:45	0.062	0.063	0.310	0.282	0.322	56.137%		
2	01:49:53	0.081	0.070	0.359	0.364	0.320	57.126%		
3	01:50:01	0.073	0.090	0.456	0.390	0.392	58.543%		
X		0.072	0.075	0.375	0.345	0.345	57.269%		
σ		0.009	0.014	0.074	0.056	0.041	1.209%		
%RSD		13.170	18.770	19.780	16.320	11.780	2.111		



## Performance Report

### Sample details

Sample name : ITUNE

Acquired at : 11/5/2014 2:17:06 PM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

### Mass Calibration verification

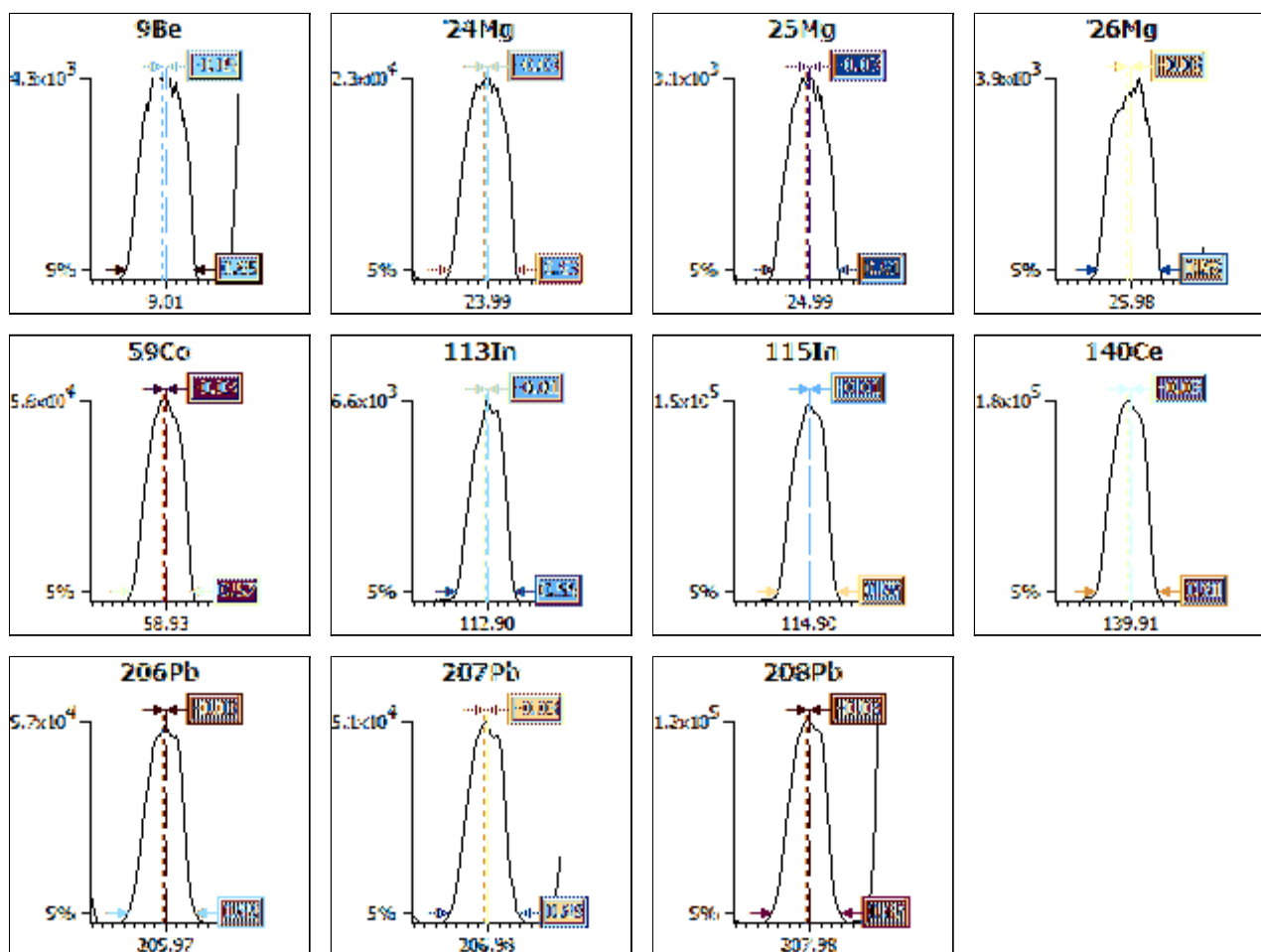
#### Acquisition parameters

Sweeps : 50

Dwell : 1.0 mSecs

Point spacing : 0.02 amu

Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
<b><sup>9</sup>Be</b>	0.90	0.40	0.10	0.65	-0.05
<b><sup>24</sup>Mg</b>	0.90	0.40	0.10	0.63	-0.03
<b><sup>25</sup>Mg</b>	0.90	0.40	0.10	0.61	-0.03
<b><sup>26</sup>Mg</b>	0.90	0.40	0.10	0.59	-0.03
<b><sup>59</sup>Co</b>	0.90	0.40	0.10	0.57	-0.03
<b><sup>113</sup>In</b>	0.90	0.40	0.10	0.55	-0.01
<b><sup>115</sup>In</b>	0.90	0.40	0.10	0.57	-0.01
<b><sup>140</sup>Ce</b>	0.90	0.40	0.10	0.61	-0.03
<b><sup>206</sup>Pb</b>	0.90	0.40	0.10	0.65	-0.03
<b><sup>207</sup>Pb</b>	0.90	0.40	0.10	0.69	-0.03
<b><sup>208</sup>Pb</b>	0.90	0.40	0.10	0.67	-0.03

**Sample details**

Sample name : ITUNE

Acquired at : 11/5/2014 2:17:06 PM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

**Tune conditions**

Major		Minor		Global		Add. Gases	
Extraction	-200	Lens 2	-56.5	Standard resolution	n/a	CCT1	0.00
Lens 1	6.4	Lens 3	-195.3	High resolution	n/a	CCT2	0.00
Focus	21.0	Forward power	1404	Analogue Detector	n/a		
D1	-28.2	Horizontal	30	PC Detector	n/a		
Pole Bias	-0.0	Vertical	420				
Hexapole Bias	-3.4	D2	-121				
Nebuliser	0.75	DA	-80.0				
Sampling Depth	200	Cool	14.0				
		Auxiliary	0.80				

**Sensitivity and stability results****Acquisition parameters**

Sweeps : 180

Run	Time	58kg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Countrate	-	>100	>500	>150	>150	>500	>500	>10000
1	2:17:53 PM	3	4780	25605	3059	3624	61259	6229	145220
2	2:19:05 PM	2	4833	25206	3008	3473	61701	6191	145885
3	2:20:17 PM	3	4759	25210	2991	3530	61817	6438	145657
4	2:21:29 PM	3	4778	25407	2997	3592	61666	6293	146343
5	2:22:41 PM	2	4759	25459	2987	3654	61989	6285	147145
x		3	4782	25377	3009	3575	61686	6287	146050
σ		0.45	30.17	170.86	29.31	72.87	269.98	94.23	733.93
%RSD		17.303	0.631	0.673	0.974	2.039	0.438	1.499	0.503

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	5.0%	-	5.0%	5.0%	5.0%	-
	Countrate	>10000	-	>1000	>1000	>5000	-
1	2:17:53 PM	178746	3083	56970	50082	120701	0
2	2:19:05 PM	179166	3116	56778	49863	120049	0
3	2:20:17 PM	178412	3106	56919	49668	119995	0
4	2:21:29 PM	179802	3168	56916	49872	119378	0
5	2:22:41 PM	179511	3116	56960	50125	119879	0
x		179127	3118	56909	49922	120000	0
σ		561.22	31.35	77.13	185.49	473.13	0.13
%RSD		0.313	1.005	0.136	0.372	0.394	58.630

**Ratio results**

Run	Time	156Ce O/140Ce
Ratio limits		<0.0600
1	2:17:53 PM	0
2	2:19:05 PM	0
3	2:20:17 PM	0
4	2:21:29 PM	0
5	2:22:41 PM	0
x		0.0174
σ		0.00
%RSD		0.7827

Result : The performance report passed.

TestAmerica Pittsburgh Atomic Absorption Data for Mercury

Instrument: HG HYDRA AA

HYDRA II

Analyst Name:

Lauren E. M. Grath

Analysis Date:

10/29/2014

File ID:

R41029B #123289

Matrix:

Soils

Analytical Method(s):

245.1 / 7470A / 7470AD.O.D. / 7471A / 7471A D.O.D. / 7471B

Job Number/SDG

38083

37750

37842

38147

38168

37876

37906

38142

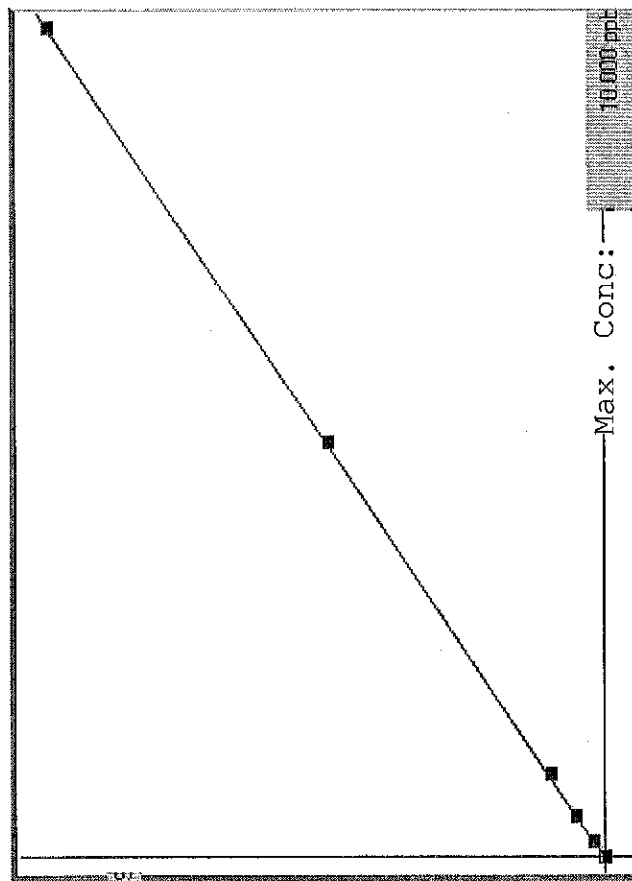
38150

70100

Laver E McGrath  
10/29/2014  
9341029B

METHG

Linear



A= 0.000e+000  
B= 1.9519e-004  
C= 1.0971e-002  
Rho= 0.9999907  
Accept= Accepted  
Accepted ☐ Date= 10/29/14 13:25

μ Abs.:  
51319

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
blank	0.000	0.002	0.002	66	0.000	66				
.2ppb	0.200	0.198	-0.002	1069	0.0 %	1069				
.5ppb	0.500	0.523	0.023	2736	0.0 %	2736				
1.0ppb	1.000	0.982	-0.018	5088	0.0 %	5088				
5.0ppb	5.000	4.989	-0.011	25617	0.0 %	25617				
10.0ppb	10.000	10.006	0.006	51319	0.0 %	51319				

## R41029B

Date of Analysis: 29 Oct 2014 12:58:57

Operator: Admin

Method: METHG

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Strnd Conc	μ Abs.	Method	Chapter
11828	Std	blank - 1		29 Oct 2014 13:16:02	-	ppb	0.0000	66METHG	R41029B	
11829	Std	.2ppb - 1		29 Oct 2014 13:17:45	-	ppb	0.2000	1069METHG	R41029B	
11830	Std	.5ppb - 1		29 Oct 2014 13:19:28	-	ppb	0.5000	2736METHG	R41029B	
11831	Std	1.0ppb - 1		29 Oct 2014 13:21:13	-	ppb	1.0000	5088METHG	R41029B	
11832	Std	5.0ppb - 1		29 Oct 2014 13:22:59	-	ppb	5.0000	25617METHG	R41029B	
11833	Std	10.0ppb - 1		29 Oct 2014 13:24:47	-	ppb	10.0000	51319METHG	R41029B	
11834	CK STND	ICV - 1		29 Oct 2014 13:26:54	100.2% 2.5054	ppb	-	12892METHG	R41029B	
11835	CK STND	ICB - 1		29 Oct 2014 13:29:10	-0.0781	ppb	-	-344METHG	R41029B	
11836	CK STND	CRA - 1		29 Oct 2014 13:31:09	101.1% 0.2022	ppb	-	1092METHG	R41029B	
11837	CK STND	CCV - 1		29 Oct 2014 13:32:50	104.8% 5.2400	ppb	-	26902METHG	R41029B	
11838	CK STND	CCB - 1		29 Oct 2014 13:34:34	-0.0826	ppb	-	-367METHG	R41029B	
11839	SMPL	MB 180-123182/1-A - 1		29 Oct 2014 13:36:39	-0.0287	ppb	-	-91METHG	R41029B	
11840	SMPL	LCS 180-123182/2-A - 1		29 Oct 2014 13:38:21	2.6128	ppb	-	13442METHG	R41029B	
11841	SMPL	180-38142-A-1-D - 1		29 Oct 2014 13:38:21	0.0091	ppb	-	103METHG	R41029B	
11842	SMPL	180-38142-A-1-E MS - 1		29 Oct 2014 13:40:03	1.1588	ppb	-	5993METHG	R41029B	
11843	SMPL	180-38142-A-1-F MSD - 1		29 Oct 2014 13:43:42	1.0885	ppb	-	5633METHG	R41029B	
11844	SMPL	180-38147-A-1-A - 1		29 Oct 2014 13:45:33	<del>1.0885</del> HIGH	ppb	-	414293METHG	R41029B	
11845	SMPL	180-38150-A-1-A - 1		29 Oct 2014 13:47:17	-0.2181	ppb	-	-1061METHG	R41029B	
11846	SMPL	180-38168-A-1-B - 1		29 Oct 2014 13:50:16	-0.0652	ppb	-	-278METHG	R41029B	
11847	SMPL	180-38168-A-3-B - 1		29 Oct 2014 13:52:00	0.0611	ppb	-	369METHG	R41029B	
11848	SMPL	180-38168-A-5-B - 1		29 Oct 2014 13:53:43	0.0704	ppb	-	417METHG	R41029B	
11849	CK STND	CCV - 1		29 Oct 2014 13:55:27	103.1% 5.1526	ppb	-	26454METHG	R41029B	
11850	CK STND	CCB - 1		29 Oct 2014 13:57:11	-0.0814	ppb	-	-361METHG	R41029B	
11851	SMPL	480-70100-C-1-A - 1		29 Oct 2014 13:59:18	0.2859	ppb	-	1521METHG	R41029B	
11852	SMPL	480-70100-C-2-A - 1		29 Oct 2014 14:01:01	1.3136	ppb	-	6786METHG	R41029B	
11853	SMPL	MB 180-123183/1-A - 1		29 Oct 2014 14:02:46	-0.0672	ppb	-	-288METHG	R41029B	
11854	SMPL	LCS 180-123183/2-A - 1		29 Oct 2014 14:04:37	2.5938	ppb	-	13345METHG	R41029B	
11855	SMPL	180-37750-B-1-D - 1		29 Oct 2014 14:06:19	0.1456	ppb	-	802METHG	R41029B	
11856	SMPL	180-37750-B-2-D - 1		29 Oct 2014 14:08:17	1.0751	ppb	-	5564METHG	R41029B	
11857	SMPL	180-37750-B-3-D - 1		29 Oct 2014 14:10:00	1.0099	ppb	-	5230METHG	R41029B	
11858	SMPL	180-37750-D-4-D - 1		29 Oct 2014 14:11:51	0.0845	ppb	-	489METHG	R41029B	
11859	SMPL	180-37750-D-4-E MS - 1		29 Oct 2014 14:13:42	1.1647	ppb	-	6023METHG	R41029B	
11860	SMPL	180-37750-D-4-F MSD - 1		29 Oct 2014 14:15:25	1.1502	ppb	-	5949METHG	R41029B	
11861	CK STND	CCV - 1		29 Oct 2014 14:17:17	100.9% 5.0444	ppb	-	25900METHG	R41029B	
11862	CK STND	CCB - 1		29 Oct 2014 14:19:08	-0.0754	ppb	-	-330METHG	R41029B	
11863	SMPL	180-37750-D-5-D - 1		29 Oct 2014 14:21:16	1.3411	ppb	-	6927METHG	R41029B	
11864	SMPL	180-37750-B-6-D - 1		29 Oct 2014 14:22:58	1.1725	ppb	-	6063METHG	R41029B	
11865	SMPL	180-37750-B-7-D - 1		29 Oct 2014 14:24:50	0.0685	ppb	-	407METHG	R41029B	
11866	SMPL	180-37750-B-8-D - 1		29 Oct 2014 14:26:43	0.6136	ppb	-	3200METHG	R41029B	
11867	SMPL	180-37750-B-9-D - 1		29 Oct 2014 14:28:28	1.2246	ppb	-	6330METHG	R41029B	
11868	SMPL	180-37876-C-1-C - 1		29 Oct 2014 14:30:13	4.0117	ppb	-	20609METHG	R41029B	
11869	SMPL	180-37876-C-2-B - 1		29 Oct 2014 14:32:09	3.3953	ppb	-	17451METHG	R41029B	
11870	SMPL	180-37876-C-3-B - 1		29 Oct 2014 14:34:13	0.6310	ppb	-	3289METHG	R41029B	
11871	SMPL	180-37876-C-4-B - 1		29 Oct 2014 14:36:14	0.4983	ppb	-	2609METHG	R41029B	
11872	SMPL	180-37876-C-5-B - 1		29 Oct 2014 14:37:59	1.5187	ppb	-	7837METHG	R41029B	
11873	CK STND	CCV - 1		29 Oct 2014 14:39:46	99.1% 4.9574	ppb	-	25454METHG	R41029B	
11874	CK STND	CCB - 1		29 Oct 2014 14:41:40	-0.0766	ppb	-	-336METHG	R41029B	
11875	SMPL	180-37876-C-6-B - 1		29 Oct 2014 14:43:49	5.2623	ppb	-	27016METHG	R41029B	
11876	SMPL	180-37876-C-7-B - 1		29 Oct 2014 14:45:31	2.7391	ppb	-	14089METHG	R41029B	
11877	SMPL	180-37876-C-8-B - 1		29 Oct 2014 14:47:39	2.3842	ppb	-	12271METHG	R41029B	
11878	SMPL	180-37876-C-9-B - 1		29 Oct 2014 14:49:37	7.9805	ppb	-	40942METHG	R41029B	
11879	SMPL	180-37876-C-10-B - 1		29 Oct 2014 14:51:38	2.2318	ppb	-	11490METHG	R41029B	
11880	SMPL	180-37876-C-11-B - 1		29 Oct 2014 14:53:52	1.6960	ppb	-	8745METHG	R41029B	
11881	SMPL	MB 180-123184/1-A - 1		29 Oct 2014 14:55:51	-0.0736	ppb	-	-321METHG	R41029B	
11882	SMPL	LCS 180-123184/2-A - 1		29 Oct 2014 14:57:44	2.5431	ppb	-	13085METHG	R41029B	

Sample not reported!  
Dilutions @ 200x

## R41029B

Method: METHG Operator: Admin Date of Analysis: 29 Oct 2014 12:56:57

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Std Cond	μ Abs/Method	Chapter
11883	SMPL	180-37876-C-12-B -1		29 Oct 2014 14:59:26	1.6031	ppb		8269METHG	R41029B
11884	SMPL	180-37876-C-13-B -1		29 Oct 2014 15:01:27	HIGH	ppb		460959METHG	R41029B
11885	CK STND	CCV -1		29 Oct 2014 15:03:15	101.3%	5.0663		26012METHG	R41029B
11886	CK STND	CCB -1		29 Oct 2014 15:06:17	-0.1312	ppb		-616METHG	R41029B
11887	SMPL	180-37876-C-14-B -1		29 Oct 2014 15:08:25	22.2723	ppb		114162METHG	R41029B
11888	SMPL	180-37876-C-15-B -1		29 Oct 2014 15:10:07	1.3212	ppb		6825METHG	R41029B
11889	SMPL	180-37876-C-16-D -1		29 Oct 2014 15:12:30	1.9023	ppb		9802METHG	R41029B
11890	SMPL	180-37876-C-16-E MS -1		29 Oct 2014 15:14:25	2.9971	ppb		15411METHG	R41029B
11891	SMPL	180-37876-C-16-F MSD -1		29 Oct 2014 15:16:20	2.7137	ppb		13959METHG	R41029B
11892	SMPL	180-37876-C-18-B -1		29 Oct 2014 15:18:17	4.8485	ppb		24896METHG	R41029B
11893	SMPL	180-37876-H-19-B -1		29 Oct 2014 15:20:17	0.5967	ppb		3113METHG	R41029B
11894	SMPL	180-37876-C-20-B -1		29 Oct 2014 15:22:22	2.9879	ppb		15364METHG	R41029B
11895	SMPL	180-37876-C-21-B -1		29 Oct 2014 15:24:09	-0.0549	ppb		-225METHG	R41029B
11896	SMPL	180-37876-C-22-A -1		29 Oct 2014 15:26:09	7.0059	ppb		35949METHG	R41029B
11897	CK STND	CCV -1		29 Oct 2014 15:27:51	99.2%	4.9617		25476METHG	R41029B
11898	CK STND	CCB -1		29 Oct 2014 15:29:59	-0.0820	ppb		-364METHG	R41029B
11899	SMPL	180-37876-C-23-A -1		29 Oct 2014 15:32:06	0.7751	ppb		4027METHG	R41029B
11900	SMPL	180-37876-C-24-A -1		29 Oct 2014 15:33:49	1.2572	ppb		6497METHG	R41029B
11901	SMPL	180-37876-C-25-A -1		29 Oct 2014 15:35:36	1.7822	ppb		9187METHG	R41029B
11902	SMPL	180-37876-C-26-A -1		29 Oct 2014 15:37:29	2.7592	ppb		14192METHG	R41029B
11903	SMPL	180-37876-C-27-A -1		29 Oct 2014 15:39:23	0.2194	ppb		1180METHG	R41029B
11904	SMPL	180-37876-C-28-A -1		29 Oct 2014 15:41:25	1.1317	ppb		5854METHG	R41029B
11905	SMPL	180-37906-B-1-M -1		29 Oct 2014 15:43:10	3.0305	ppb		15582METHG	R41029B
11906	SMPL	180-37906-B-2-G -1		29 Oct 2014 15:45:03	2.4197	ppb		12453METHG	R41029B
11907	SMPL	180-37906-B-3-G -1		29 Oct 2014 15:47:05	2.5247	ppb		12991METHG	R41029B
11908	SMPL	180-37906-B-4-G -1		29 Oct 2014 15:49:09	19.9851	ppb		102444METHG	R41029B
11909	CK STND	CCV -1		29 Oct 2014 15:51:10	94.7%	4.7364		24322METHG	R41029B
11910	CK STND	CCB -1		29 Oct 2014 15:53:32	-0.0930	ppb		-420METHG	R41029B
11911	SMPL	MB 180-123185/1-A -1		29 Oct 2014 15:55:41	-0.0077	ppb		17METHG	R41029B
11912	SMPL	LCS 180-123185/2-A -1		29 Oct 2014 15:57:24	2.4148	ppb		12428METHG	R41029B
11913	SMPL	180-37906-B-5-H -1		29 Oct 2014 15:59:07	0.2180	ppb		1173METHG	R41029B
11914	SMPL	180-37906-B-6-H -1		29 Oct 2014 16:01:06	16.6316	ppb		85262METHG	R41029B
11915	SMPL	180-37906-B-7-H -1		29 Oct 2014 16:02:50	0.3527	ppb		1863METHG	R41029B
11916	SMPL	180-37842-A-1-B -1		29 Oct 2014 16:05:13	0.0855	ppb		494METHG	R41029B
11917	SMPL	180-37842-A-2-B -1		29 Oct 2014 16:06:58	0.1274	ppb		709METHG	R41029B
11918	SMPL	180-37842-A-3-B -1		29 Oct 2014 16:08:43	0.1526	ppb		838METHG	R41029B
11919	SMPL	180-37842-A-4-D -1		29 Oct 2014 16:10:26	0.2519	ppb		1347METHG	R41029B
11920	SMPL	180-37842-A-4-E MS -1		29 Oct 2014 16:12:11	1.0542	ppb		5457METHG	R41029B
11921	CK STND	CCV -1		29 Oct 2014 16:13:56	95.3%	4.7628		24457METHG	R41029B
11922	CK STND	CCB -1		29 Oct 2014 16:15:47	-0.0754	ppb		-330METHG	R41029B
11923	SMPL	180-37842-A-4-F MSD -1		29 Oct 2014 16:17:55	1.0364	ppb		5366METHG	R41029B
11924	SMPL	180-37842-A-5-B -1		29 Oct 2014 16:19:38	0.0353	ppb		237METHG	R41029B
11925	SMPL	180-37842-A-6-B -1		29 Oct 2014 16:21:29	0.0611	ppb		369METHG	R41029B
11926	SMPL	180-37842-A-7-B -1		29 Oct 2014 16:23:13	0.0302	ppb		211METHG	R41029B
11927	SMPL	180-37842-A-8-B -1		29 Oct 2014 16:24:56	0.0585	ppb		356METHG	R41029B
11928	SMPL	180-37842-A-9-B -1		29 Oct 2014 16:26:39	0.0452	ppb		288METHG	R41029B
11929	SMPL	MB 180-123161/1-A -1		29 Oct 2014 16:28:22	-0.0157	ppb		-24METHG	R41029B
11930	SMPL	LCS 180-123161/2-A -1		29 Oct 2014 16:30:05	2.4590	ppb		12654METHG	R41029B
11931	SMPL	LCS 180-123161/3-A -1		29 Oct 2014 16:31:47	2.3742	ppb		12220METHG	R41029B
11932	SMPL	180-38083-A-1-I -1		29 Oct 2014 16:33:47	-0.0768	ppb		-337METHG	R41029B
11933	CK STND	CCV -1		29 Oct 2014 16:35:48	93.4%	4.6693		23978METHG	R41029B
11934	CK STND	CCB -1		29 Oct 2014 16:37:31	-0.0916	ppb		-413METHG	R41029B
11935	SMPL	180-38147-A-1-A @50 -1		29 Oct 2014 16:39:38	3.0722	ppb		15796METHG	R41029B
11936	SMPL	180-37876-C-13-B @50 -1		29 Oct 2014 16:41:21	3.0826	ppb		15849METHG	R41029B
11937	SMPL	180-37876-C-14-B @10 -1		29 Oct 2014 16:43:22	1.9450	ppb		10021METHG	R41029B

# R41029B

Method: METHG Date of Analysis: 29 Oct 2014 12:58:57

Operator: Admin

Seq ID	Type	Sample ID	Extended ID	Date	Conc.	Units	Std Cond	μ Abs Method	Chapter
11938	CK STND	CCV - 1		29 Oct 2014 16:45:28	92.2% 4.6096	ppb	-	23672METHG	R41029B
11939	CK STND	CCB - 1		29 Oct 2014 16:47:26	-0.0818	ppb	-	-363METHG	R41029B

*End of Run  
Jawen L. McGrath  
10/29/2014*

Laura E. McGrath  
10/29/2014  
Page 1 of 3

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	1	MB 180-123182/1-A		1.0000	1.0000
1	2	LCS 180-123182/2-A		1.0000	1.0000
1	3	180-38142-A-1-D		1.0000	1.0000
1	4	180-38142-A-1-E MS		1.0000	1.0000
1	5	180-38142-A-1-F MSD		1.0000	1.0000
1	6	180-38147-A-1-A		1.0000	1.0000
1	7	180-38150-A-1-A		1.0000	1.0000
1	8	180-38168-A-1-B		1.0000	1.0000
1	9	180-38168-A-3-B		1.0000	1.0000
1	10	180-38168-A-5-B		1.0000	1.0000
1	11	480-70100-C-1-A		1.0000	1.0000
1	12	480-70100-C-2-A		1.0000	1.0000
1	13	MB 180-123183/1-A		1.0000	1.0000
1	14	LCS 180-123183/2-A		1.0000	1.0000
1	15	180-37750-B-1-D		1.0000	1.0000
1	16	180-37750-B-2-D		1.0000	1.0000
1	17	180-37750-B-3-D		1.0000	1.0000
1	18	180-37750-D-4-D		1.0000	1.0000
1	19	180-37750-D-4-E MS		1.0000	1.0000
1	20	180-37750-D-4-F MSD		1.0000	1.0000
1	21	180-37750-D-5-D		1.0000	1.0000
1	22	180-37750-B-6-D		1.0000	1.0000
1	23	180-37750-B-7-D		1.0000	1.0000
1	24	180-37750-B-8-D		1.0000	1.0000
1	25	180-37750-B-9-D		1.0000	1.0000
1	26	180-37876-C-1-C		1.0000	1.0000
1	27	180-37876-C-2-B		1.0000	1.0000
1	28	180-37876-C-3-B		1.0000	1.0000
1	29	180-37876-C-4-B		1.0000	1.0000
1	30	180-37876-C-5-B		1.0000	1.0000
1	31	180-37876-C-6-B		1.0000	1.0000
1	32	180-37876-C-7-B		1.0000	1.0000
1	33	180-37876-C-8-B		1.0000	1.0000
1	34	180-37876-C-9-B		1.0000	1.0000
1	35	180-37876-C-10-B		1.0000	1.0000
1	36	180-37876-C-11-B		1.0000	1.0000
1	37	MB 180-123184/1-A		1.0000	1.0000
1	38	LCS 180-123184/2-A		1.0000	1.0000
1	39	180-37876-C-12-B		1.0000	1.0000



Jawen L McGrath  
10/29/2014  
Page 2 of 3

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	40	180-37876-C-13-B		1.0000	1.0000
1	41	180-37876-C-14-B		1.0000	1.0000
1	42	180-37876-C-15-B		1.0000	1.0000
1	43	180-37876-C-16-D		1.0000	1.0000
1	44	180-37876-C-16-E MS		1.0000	1.0000
1	45	180-37876-C-16-F MSD		1.0000	1.0000
1	46	180-37876-C-18-B		1.0000	1.0000
1	47	180-37876-H-19-B		1.0000	1.0000
1	48	180-37876-C-20-B		1.0000	1.0000
1	49	180-37876-C-21-B		1.0000	1.0000
1	50	180-37876-C-22-A		1.0000	1.0000
1	51	180-37876-C-23-A		1.0000	1.0000
1	52	180-37876-C-24-A		1.0000	1.0000
1	53	180-37876-C-25-A		1.0000	1.0000
1	54	180-37876-C-26-A		1.0000	1.0000
1	55	180-37876-C-27-A		1.0000	1.0000
1	56	180-37876-C-28-A		1.0000	1.0000
1	57	180-37906-B-1-M		1.0000	1.0000
1	58	180-37906-B-2-G		1.0000	1.0000
1	59	180-37906-B-3-G		1.0000	1.0000
1	60	180-37906-B-4-G		1.0000	1.0000
2	1	MB 180-123185/1-A		1.0000	1.0000
2	2	LCS 180-123185/2-A		1.0000	1.0000
2	3	180-37906-B-5-H		1.0000	1.0000
2	4	180-37906-B-6-H		1.0000	1.0000
2	5	180-37906-B-7-H		1.0000	1.0000
2	6	180-37842-A-1-B		1.0000	1.0000
2	7	180-37842-A-2-B		1.0000	1.0000
2	8	180-37842-A-3-B		1.0000	1.0000
2	9	180-37842-A-4-D		1.0000	1.0000
2	10	180-37842-A-4-E MS		1.0000	1.0000
2	11	180-37842-A-4-F MSD		1.0000	1.0000
2	12	180-37842-A-5-B		1.0000	1.0000
2	13	180-37842-A-6-B		1.0000	1.0000
2	14	180-37842-A-7-B		1.0000	1.0000
2	15	180-37842-A-8-B		1.0000	1.0000
2	16	180-37842-A-9-B		1.0000	1.0000
2	17	MB 180-123161/1-A		1.0000	1.0000
2	18	LCS 180-123161/2-A		1.0000	1.0000

Lauren E McGrath  
10/29/2014  
Page 3 of 3

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
2	19	LCSD 180-123161/3-A		1.0000	1.0000
2	20	180-38083-A-1-I		1.0000	1.0000
2	21	180-38147-A-1-A @50		1.0000	1.0000
2	22	180-37876-C-13-B @50		1.0000	1.0000
2	23	180-37876-C-14-B @10		1.0000	1.0000
2	24			1.0000	1.0000
2	25			1.0000	1.0000
2	26			1.0000	1.0000
2	27			1.0000	1.0000
2	28			1.0000	1.0000
2	29			1.0000	1.0000
2	30			1.0000	1.0000
2	31			1.0000	1.0000
2	32			1.0000	1.0000
2	33			1.0000	1.0000
2	34			1.0000	1.0000
2	35			1.0000	1.0000
2	36			1.0000	1.0000
2	37			1.0000	1.0000
2	38			1.0000	1.0000
2	39			1.0000	1.0000
2	40			1.0000	1.0000
2	41			1.0000	1.0000
2	42			1.0000	1.0000
2	43			1.0000	1.0000
2	44			1.0000	1.0000
2	45			1.0000	1.0000
2	46			1.0000	1.0000
2	47			1.0000	1.0000
2	48			1.0000	1.0000
2	49			1.0000	1.0000
2	50			1.0000	1.0000
2	51			1.0000	1.0000
2	52			1.0000	1.0000
2	53			1.0000	1.0000
2	54			1.0000	1.0000
2	55			1.0000	1.0000
2	56			1.0000	1.0000
2	57			1.0000	1.0000

## METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 121962 Batch Start Date: 10/19/14 12:30 Batch Analyst: Bucklaw, Michael EBatch Method: AVSSEM Batch End Date: 10/19/14 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITMSBREV 00011			
MB 180-121962/1		AVSSEM, 6010B		10.00 g	250 mL				
LCS 180-121962/2		AVSSEM, 6010B		10.00 g	250 mL	2.5 mL			
180-37750-D-4	SD-B01	AVSSEM, 6010B	V	10.01 g	250 mL				
180-37750-B-4 MS	SD-B01	AVSSEM, 6010B	V	9.94 g	250 mL	2.5 mL			
180-37750-B-4 MSD	SD-B01	AVSSEM, 6010B	V	9.96 g	250 mL	2.5 mL			
180-37750-B-1	SD-A01	AVSSEM, 6010B	V	10.04 g	250 mL				
180-37750-B-2	SD-A02	AVSSEM, 6010B	V	9.95 g	250 mL				
180-37750-B-3	SD-A03	AVSSEM, 6010B	V	10.01 g	250 mL				
180-37750-D-5	SD-B02	AVSSEM, 6010B	V	10.00 g	250 mL				
180-37750-B-6	SD-B02-FD	AVSSEM, 6010B	V	10.00 g	250 mL				
180-37750-B-7	SD-C01	AVSSEM, 6010B	V	9.98 g	250 mL				
180-37750-B-8	SD-C02	AVSSEM, 6010B	V	10.02 g	250 mL				
180-37750-B-9	SD-C03	AVSSEM, 6010B	V	10.05 g	250 mL				

Batch Notes	

Basis	Basis Description
V	SEM/AVS

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123380 Batch Start Date: 10/31/14 07:30 Batch Analyst: Rosenbaum, Ron

Batch Method: 3050B Batch End Date: 10/31/14 09:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	MTAPITTCFMS 00018	MTAPITTMSA 00022	MTAPITTMSC 00028
MB 180-123380/1		3050B, 6020A		CALC NOT SET TO RUN	00002.00 g	100 mL			
LCS 180-123380/2		3050B, 6020A		CALC NOT SET TO RUN	00002.01 g	100 mL	1 mL	1 mL	1 mL
180-37750-B-1	SD-A01	3050B, 6020A	T	CALC NOT SET TO RUN	00002.01 g	100 mL			
180-37750-B-2	SD-A02	3050B, 6020A	T	CALC NOT SET TO RUN	00002.07 g	100 mL			
180-37750-B-3	SD-A03	3050B, 6020A	T	CALC NOT SET TO RUN	00001.96 g	100 mL			
180-37750-D-4	SD-B01	3050B, 6020A	T	CALC NOT SET TO RUN	00001.92 g	100 mL			
180-37750-B-4 MS	SD-B01	3050B, 6020A	T	CALC NOT SET TO RUN	00002.02 g	100 mL	1 mL	1 mL	1 mL
180-37750-B-4 MSD	SD-B01	3050B, 6020A	T	CALC NOT SET TO RUN	00002.07 g	100 mL	1 mL	1 mL	1 mL
180-37750-D-5	SD-B02	3050B, 6020A	T	CALC NOT SET TO RUN	00002.13 g	100 mL			
180-37750-B-6	SD-B02-FD	3050B, 6020A	T	CALC NOT SET TO RUN	00002.20 g	100 mL			
180-37750-B-7	SD-C01	3050B, 6020A	T	CALC NOT SET TO RUN	00002.27 g	100 mL			
180-37750-B-8	SD-C02	3050B, 6020A	T	CALC NOT SET TO RUN	00002.07 g	100 mL			
180-37750-B-9	SD-C03	3050B, 6020A	T	CALC NOT SET TO RUN	00002.01 g	100 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123380 Batch Start Date: 10/31/14 07:30 Batch Analyst: Rosenbaum, RonBatch Method: 3050B Batch End Date: 10/31/14 09:20

Batch Notes	
Analyst	RJR
Balance ID	P1856710
Batch Comment	A4 Metals
Blank Soil Lot Number	1159128
Filter Paper Lot Number	WHATMAN 9587322A
Hydrogen peroxide lot number	10ml 1205376
Lot # of hydrochloric acid	10ml 1294517
Logbook ID for diluted Nitric	10ml 1322052
Lot # of Nitric Acid	5ml 1322048
Hot Block ID number	HB10
Pipette ID	L1201611U
Person's name who witnessed reagent drop	RJR
Perform Calculation (0=No, 1=Yes)	0
Temperature	95 Degrees C
ID number of the thermometer	IP38-14 (CF: 0.0) D3
Digestion Tube/Cup Lot #	ENV.EXPRESS 1309222

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123183 Batch Start Date: 10/29/14 12:00 Batch Analyst: McGrath, Lauren EBatch Method: 7471A Batch End Date: 10/29/14 12:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00909			
MB 180-123183/1		7471A, 7471A		00001.20 g	100 mL				
LCS 180-123183/2		7471A, 7471A		00001.20 g	100 mL	2.5 mL			
180-37750-B-1	SD-A01	7471A, 7471A	T	00001.20 g	100 mL				
180-37750-B-2	SD-A02	7471A, 7471A	T	00001.20 g	100 mL				
180-37750-B-3	SD-A03	7471A, 7471A	T	00001.24 g	100 mL				
180-37750-D-4	SD-B01	7471A, 7471A	T	00001.25 g	100 mL				
180-37750-D-4 MS	SD-B01	7471A, 7471A	T	00001.26 g	100 mL	1 mL			
180-37750-D-4 MSD	SD-B01	7471A, 7471A	T	00001.27 g	100 mL	1 mL			
180-37750-D-5	SD-B02	7471A, 7471A	T	00001.22 g	100 mL				
180-37750-B-6	SD-B02-FD	7471A, 7471A	T	00001.21 g	100 mL				
180-37750-B-7	SD-C01	7471A, 7471A	T	00001.28 g	100 mL				
180-37750-B-8	SD-C02	7471A, 7471A	T	00001.23 g	100 mL				
180-37750-B-9	SD-C03	7471A, 7471A	T	00001.24 g	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7471A

Page 1 of 2

## METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123183 Batch Start Date: 10/29/14 12:00 Batch Analyst: McGrath, Lauren EBatch Method: 7471A Batch End Date: 10/29/14 12:30

Batch Notes	
Hydroxylamine Hydrochloride Lot	6ML 1321961 hg disp c6
Aqua Regia Lot Number	1377938
Balance ID	P1856709
Digestion End Time	1230
Digestion Start Time	1200
Filter Lot #	WATMAN 40
Sulfuric Acid Lot Number	1285209
Lot # of Nitric Acid	1285208
Hot Block ID number	#2
Potassium Persulfate Lot Number	8ML 1321960 hg disp ks4
Potassium Permanganate Lot Number	15ML 1321959 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	94 Celsius
Pipette ID	J00922
Repipettor Volume Check	YES
Stannous Chloride Lot Number	1321963
ID number of the thermometer	IP 30 (0.0) E5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	94 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7471A

Page 2 of 2

## METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123192 Batch Start Date: 10/29/14 12:00 Batch Analyst: McGrath, Lauren EBatch Method: 7471B Batch End Date: 10/29/14 12:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MHgworkingCal 00909	MHgWorkingicv 00889		
ICV 180-123192/7		7471B, 7471A		100 mL	100 mL		2.5 mL		
ICB 180-123192/8		7471B, 7471A		100 mL	100 mL				
CRA 180-123192/9		7471B, 7471A		100 mL	100 mL	0.2 mL			
CCV 180-123192/10		7471B, 7471A		100 mL	100 mL	5 mL			
CCB 180-123192/11		7471B, 7471A		100 mL	100 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	6ML 1321961 hg disp c6
Aqua Regia Lot Number	1377938
Balance ID	P1856709
Digestion End Time	1230
Digestion Start Time	1200.
Filter Lot #	WATMAN 40
Sulfuric Acid Lot Number	1285209
Lot # of Nitric Acid	1285208
Hot Block ID number	#1
Potassium Persulfate Lot Number	8ML 1321960 hg disp ks4
Potassium Permanganate Lot Number	15ML 1321959 hg disp kmN04
NaCl Lot #	1217635
Oven, Bath or Block Temperature 1	94 Celsius
Pipette ID	J00922
Repittetor Volume Check	YES
Stannous Chloride Lot Number	1321963
ID number of the thermometer	IP 29 (0.0) E5
Digestion Tube/Cup Lot #	1404094
Uncorrected Temperature	94 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7471A

Page 1 of 2



# METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 123192 Batch Start Date: 10/29/14 12:00 Batch Analyst: McGrath, Lauren E

Batch Method: 7471B Batch End Date: 10/29/14 12:30

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7471A

# GENERAL CHEMISTRY

COVER PAGE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

Project: Sparrows Point Trust Offshore Investigat

Client Sample ID	Lab Sample ID
SD-A01	180-37750-1
SD-A02	180-37750-2
SD-A03	180-37750-3
SD-B01	180-37750-4
SD-B02	180-37750-5
SD-B02-FD	180-37750-6
SD-C01	180-37750-7
SD-C02	180-37750-8
SD-C03	180-37750-9

Comments:

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-A01 Lab Sample ID: 180-37750-1  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 11:45  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 68.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.12	0.36	0.12	mg/Kg	J		1	9014
7440-44-0	Total Organic Carbon - Duplicates	2700	1500	130	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-A01  
Lab Name: TestAmerica Pittsburgh  
SDG ID.:  
Matrix: Sediment  
Reporting Basis: DRY  
% Solids: 68.5

Lab Sample ID: 180-37750-1  
Job No.: 180-37750-1  
Date Sampled: 10/13/2014 11:45  
Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	ND	22	4.4	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	ND	0.68	0.14	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-A02 Lab Sample ID: 180-37750-2  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 11:15  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 34.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	0.73	0.24	mg/Kg			1	9014
7440-44-0	Total Organic Carbon - Duplicates	42000	2900	260	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-A02 Lab Sample ID: 180-37750-2  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 11:15  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 34.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	750	44	8.8	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	23	1.4	0.27	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-A03 Lab Sample ID: 180-37750-3  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 10:20  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 22.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	1.1	0.36	mg/Kg			1	9014
7440-44-0	Total Organic Carbon - Duplicates	62000	4400	390	mg/Kg			1	Lloyd Kahn



1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-A03 Lab Sample ID: 180-37750-3  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 10:20  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 22.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	1300	66	13	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	41	2.1	0.41	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-B01  
Lab Sample ID: 180-37750-4  
Lab Name: TestAmerica Pittsburgh  
Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment  
Date Sampled: 10/13/2014 12:50  
Reporting Basis: DRY  
Date Received: 10/15/2014 09:30  
% Solids: 70.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	0.35	0.12	mg/Kg			1	9014
	HEM	260	240	33	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	2400	1400	130	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-B01  
Lab Name: TestAmerica Pittsburgh  
SDG ID.:  
Matrix: Sediment  
Reporting Basis: DRY  
% Solids: 70.7

Lab Sample ID: 180-37750-4  
Job No.: 180-37750-1  
Date Sampled: 10/13/2014 12:50  
Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	ND	21	4.2	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	ND	0.66	0.13	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Lab Name: TestAmerica Pittsburgh

Job No.: 180-37750-1

SDG ID.:

Matrix: Sediment

Date Sampled: 10/13/2014 12:10

Reporting Basis: DRY

Date Received: 10/15/2014 09:30

% Solids: 24.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	1.0	0.33	mg/Kg			1	9014
	HEM	12000	690	96	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	63000	4200	370	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Lab Sample ID: 180-37750-5

Job No.: 180-37750-1

SDG ID.:

Date Sampled: 10/13/2014 12:10

Date Received: 10/15/2014 09:30

```
% Solids:    24.0
```

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	1200	62	12	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	39	1.9	0.39	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-B02-FD                      Lab Sample ID: 180-37750-6  
Lab Name: TestAmerica Pittsburgh                      Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment                      Date Sampled: 10/13/2014 12:10  
Reporting Basis: DRY                      Date Received: 10/15/2014 09:30  
% Solids: 27.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	0.95	0.31	mg/Kg			1	9014
	HEM	12000	610	85	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	55000	3700	330	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-B02-FD Lab Sample ID: 180-37750-6  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.: \_\_\_\_\_  
Matrix: Sediment Date Sampled: 10/13/2014 12:10  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 27.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	1000	55	11	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	32	1.7	0.34	umol/g			1	9034

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment Date Sampled: 10/13/2014 15:30  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 67.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	ND	0.37	0.12	mg/Kg			1	9014
	HEM	310	240	34	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	3100	1500	130	mg/Kg			1	Lloyd Kahn



1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Client Sample ID: SD-C01 Lab Sample ID: 180-37750-7  
Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG ID.:  
Matrix: Sediment Date Sampled: 10/13/2014 15:30  
Reporting Basis: DRY Date Received: 10/15/2014 09:30  
% Solids: 67.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	ND	22	4.4	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	ND	0.69	0.14	umol/g			1	9034

Client Sample ID:	SD-C02	Lab Sample ID:	180-37750-8
Lab Name:	TestAmerica Pittsburgh	Job No.:	180-37750-1
SDG ID.:			
Matrix:	Sediment	Date Sampled:	10/13/2014 14:50
Reporting Basis:	DRY	Date Received:	10/15/2014 09:30
% Solids:	57.9		

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.36	0.42	0.14	mg/Kg	J		1	9014
	HEM	1600	280	39	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	16000	1700	150	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Lab Sample ID: 180-37750-8

Job No.: 180-37750-1

SDG ID.:

Date Sampled: 10/13/2014 14:50

Date Received: 10/15/2014 09:30

% Solids: 57.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	350	26	5.2	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	11	0.81	0.16	umol/g			1	9034

Client Sample ID:	SD-C03	Lab Sample ID:	180-37750-9
Lab Name:	TestAmerica Pittsburgh	Job No.:	180-37750-1
SDG ID.:			
Matrix:	Sediment	Date Sampled:	10/13/2014 14:30
Reporting Basis:	DRY	Date Received:	10/15/2014 09:30
% Solids:	23.4		

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	1.5	1.0	0.34	mg/Kg			1	9014
	HEM	18000	710	99	mg/Kg		B	1	9071B
7440-44-0	Total Organic Carbon - Duplicates	63000	4300	380	mg/Kg			1	Lloyd Kahn

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY - SEM/AVS

Lab Sample ID: 180-37750-9

Job No.: 180-37750-1

SDG ID.:

Date Sampled: 10/13/2014 14:30

Date Received: 10/15/2014 09:30

```
% Solids:      23.4
```

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
18496-25-8	Acid Volatile Sulfides (AVS)	730	64	13	mg/Kg			1	9034
18496-25-8	Acid Volatile Sulfides (AVS)	23	2.0	0.40	umol/g			1	9034

2-IN  
CALIBRATION QUALITY CONTROL  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Analyst: PGJ Batch Start Date: 10/24/2014  
Reporting Units: mg/L Analytical Batch No.: 122641

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	10:19	Cyanide, Total	0.203	0.200	101	90-110		WCN0.2ICV_00288
9	ICB	10:21	Cyanide, Total	ND					
10	CCV	10:23	Cyanide, Total	0.102	0.100	102	90-110		WCN0.1L3_00003
11	CCB	10:25	Cyanide, Total	ND					
22	CCV	10:49	Cyanide, Total	0.0985	0.100	99	90-110		WCN0.1L3_00003
23	CCB	10:51	Cyanide, Total	ND					
34	CCV	11:14	Cyanide, Total	0.0967	0.100	97	90-110		WCN0.1L3_00003
35	CCB	11:16	Cyanide, Total	ND					
43	CCV	11:31	Cyanide, Total	0.0998	0.100	100	90-110		WCN0.1L3_00003
44	CCB	11:33	Cyanide, Total	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN  
CALIBRATION QUALITY CONTROL  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Analyst: PGJ Batch Start Date: 10/27/2014  
Reporting Units: mg/L Analytical Batch No.: 122911

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:10	Cyanide, Total	0.217	0.200	109	90-110		WCN0.2ICV_00289
2	ICB	15:12	Cyanide, Total	ND					
3	CCV	15:14	Cyanide, Total	0.101	0.100	101	90-110		WCN0.1L3_00004
4	CCB	15:16	Cyanide, Total	ND					
15	CCV	15:40	Cyanide, Total	0.104	0.100	104	90-110		WCN0.1L3_00004
16	CCB	15:42	Cyanide, Total	ND					
27	CCV	16:06	Cyanide, Total	0.101	0.100	101	90-110		WCN0.1L3_00004
28	CCB	16:08	Cyanide, Total	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN  
CALIBRATION QUALITY CONTROL  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
SDG No.: \_\_\_\_\_  
Analyst: MEB Batch Start Date: 10/20/2014  
Reporting Units: mg/L Analytical Batch No.: 122072

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	14:11	Acid Volatile Sulfides (AVS)	18.6	19.2	97	85-115		WSULFSICVCCV_00170
2	ICB	14:11	Acid Volatile Sulfides (AVS)	ND					
13	CCV	14:11	Acid Volatile Sulfides (AVS)	19.0	19.2	99	85-115		WSULFSICVCCV_00170
14	CCB	14:11	Acid Volatile Sulfides (AVS)	ND					
21	CCV	14:11	Acid Volatile Sulfides (AVS)	18.8	19.2	98	85-115		WSULFSICVCCV_00170
22	CCB	14:11	Acid Volatile Sulfides (AVS)	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.



2-IN  
CALIBRATION QUALITY CONTROL  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1  
 SDG No.: \_\_\_\_\_  
 Analyst: JDD Batch Start Date: 10/23/2014  
 Reporting Units: mg/Kg Analytical Batch No.: 122589

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:21	Total Organic Carbon - Duplicates	11100	10000	111	85-115		LKTOCKHPL1_00011
2	CCB	10:28	Total Organic Carbon - Duplicates	ND					
15	CCV	12:14	Total Organic Carbon - Duplicates	10400	10000	104	85-115		LKTOCKHPL1_00011
16	CCB	12:20	Total Organic Carbon - Duplicates	ND					
29	CCV	14:06	Total Organic Carbon - Duplicates	9700	10000	97	85-115		LKTOCKHPL1_00011
30	CCB	14:11	Total Organic Carbon - Duplicates	ND					
43	CCV	15:51	Total Organic Carbon - Duplicates	9180	10000	92	85-115		LKTOCKHPL1_00011
44	CCB	15:57	Total Organic Carbon - Duplicates	ND					
57	CCV	17:36	Total Organic Carbon - Duplicates	9810	10000	98	85-115		LKTOCKHPL1_00011
58	CCB	17:42	Total Organic Carbon - Duplicates	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN  
METHOD BLANK  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 122641 Date: 10/24/2014 10:34 Prep Batch: 122578 Date: 10/24/2014 07:30							
9014	MB 180-122578/4-A	Cyanide, Total	ND		mg/Kg	0.25	1
Batch ID: 122911 Date: 10/27/2014 15:25 Prep Batch: 122877 Date: 10/27/2014 12:40							
9014	MB 180-122877/4-A	Cyanide, Total	ND		mg/Kg	0.25	1
Batch ID: 122072 Date: 10/20/2014 14:11 Prep Batch: 121963 Date: 10/19/2014 14:32							
9034	MB 180-121963/1-A	Acid Volatile Sulfides (AVS)	ND		mg/Kg	15	1
9034	MB 180-121963/1-A	Acid Volatile Sulfides (AVS)	ND		umol/g	0.47	1
Batch ID: 122993 Date: 10/27/2014 06:23 Prep Batch: 122780 Date: 10/27/2014 06:23							
9071B	MB 180-122780/1-A	HEM	26.7	J	mg/Kg	170	1
Batch ID: 122589 Date: 10/23/2014 10:33							
Lloyd Kahn	MB 180-122589/3	Total Organic Carbon - Duplicates	ND		mg/Kg	1000	1

5-IN  
MATRIX SPIKE SAMPLE RECOVERY  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 122911 Date: 10/27/2014 15:33 Prep Batch: 122877 Date: 10/27/2014 12:40											
9014	180-37750-4	Cyanide, Total	ND		mg/Kg						
9014	180-37750-4	Cyanide, Total	7.39		mg/Kg	7.15	103	75-125			
MS											
Batch ID: 122072 Date: 10/20/2014 14:11 Prep Batch: 121963 Date: 10/19/2014 14:32											
9034	180-37750-4	Acid Volatile Sulfides (AVS)	ND		mg/Kg						
9034	180-37750-4	Acid Volatile Sulfides (AVS)	130		mg/Kg	137	95	75-125			
MS											
Batch ID: 122993 Date: 10/27/2014 06:23 Prep Batch: 122780 Date: 10/27/2014 06:23											
9071B	180-37750-4	HEM	260		mg/Kg						B
9071B	180-37750-4	HEM	1530		mg/Kg	1870	68	78-114			F1
MS											
Batch ID: 122589 Date: 10/23/2014 16:49											
Lloyd	180-37750-4	Total Organic Carbon -	2400		mg/Kg						
Kahn		Duplicates									
Lloyd	180-37750-4	Total Organic Carbon -	21800		mg/Kg	24500	79	75-125			
Kahn	MS	Duplicates									

Calculations are performed before rounding to avoid round-off errors in calculated results.  
Note - Results and Reporting Limits have been adjusted for dry weight.

5-IN  
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 122911 Date: 10/27/2014 15:36 Prep Batch: 122877 Date: 10/27/2014 12:40											
9014	180-37750-4 MSD	Cyanide, Total	7.06		mg/Kg	6.90	102	75-125	5	20	
Batch ID: 122072 Date: 10/20/2014 14:11 Prep Batch: 121963 Date: 10/19/2014 14:32											
9034	180-37750-4 MSD	Acid Volatile Sulfides (AVS)	127		mg/Kg	137	93	75-125	2	20	
Batch ID: 122993 Date: 10/27/2014 06:23 Prep Batch: 122780 Date: 10/27/2014 06:23											
9071B	180-37750-4 MSD	HEM	1570		mg/Kg	1870	70	78-114	3	18	F1
Batch ID: 122589 Date: 10/23/2014 17:05											
Lloyd Kahn	180-37750-4 MSD	Total Organic Carbon - Duplicates	28300		mg/Kg	25200	102	75-125	26	20	F2

Calculations are performed before rounding to avoid round-off errors in calculated results.  
Note - Results and Reporting Limits have been adjusted for dry weight.

6-IN  
DUPLICATE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 122589 Date: 10/23/2014 17:21								
Lloyd Kahn	SD-B01	180-37750-4	Total Organic Carbon - Duplicates	2400	mg/Kg			
Lloyd Kahn	SD-B01	180-37750-4 DU	Total Organic Carbon - Duplicates	2430	mg/Kg	0.6	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN  
LAB CONTROL SAMPLE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 122641 Date: 10/24/2014 10:31 Prep Batch: 122578 Date: 10/24/2014 07:30 LCS Source: WCNSoilLCS_00014											
9014	LCS 180-122578/3-A	Cyanide, Total	70.1		mg/Kg	64.5	109	38-162			
Batch ID: 122911 Date: 10/27/2014 15:23 Prep Batch: 122877 Date: 10/27/2014 12:40 LCS Source: WCNSoilLCS_00014											
9014	LCS 180-122877/3-A	Cyanide, Total	76.9		mg/Kg	64.5	119	38-162			
Batch ID: 122072 Date: 10/20/2014 14:11 Prep Batch: 121963 Date: 10/19/2014 14:32 LCS Source: WSULFPSP_00173											
9034	LCS 180-121963/2-A	Acid Volatile Sulfides (AVS)	94.8		mg/Kg	96.1	99	85-115			
Batch ID: 122993 Date: 10/27/2014 06:23 Prep Batch: 122780 Date: 10/27/2014 06:23 LCS Source: WHemPSP_00169											
9071B	LCS 180-122780/2-A	HEM	1180		mg/Kg	1330	89	78-114			
Batch ID: 122589 Date: 10/23/2014 10:44 LCS Source: LKTOCSRM_00014											
Lloyd Kahn	LCS 180-122589/4	Total Organic Carbon - Duplicates	33600		mg/Kg	35000	96	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN  
LOW LEVEL CONTROL SAMPLE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 122641 Date: 10/24/2014 10:27 Prep Batch: 122578 Date: 10/24/2014 07:30 LCS Source: WCN0.5L1_00451											
9014	LLCS 180-122578/1-A	Cyanide, Total	0.0480		mg/Kg	0.0500	96	90-110			
Batch ID: 122911 Date: 10/27/2014 15:18 Prep Batch: 122877 Date: 10/27/2014 12:40 LCS Source: WCN0.5L1_00452											
9014	LLCS 180-122877/1-A	Cyanide, Total	0.0471		mg/Kg	0.0500	94	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN  
HIGH LEVEL CONTROL SAMPLE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Matrix: Sediment

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 122641 Date: 10/24/2014 10:29 Prep Batch: 122578 Date: 10/24/2014 07:30 LCS Source: WCN10Pi_00454											
9014	HLCS 180-122578/2-A	Cyanide, Total	0.244		mg/Kg	0.250	97	90-110			
Batch ID: 122911 Date: 10/27/2014 15:20 Prep Batch: 122877 Date: 10/27/2014 12:40 LCS Source: WCN10Pi_00455											
9014	HLCS 180-122877/2-A	Cyanide, Total	0.249		mg/Kg	0.250	100	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN



9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: SEAL2  
Method: 9014 MDL Date: 10/15/2014 13:01  
Prep Method: 9010C

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Cyanide, Total		0.25	0.08165

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: SEAL2  
Method: 9014 XMDL Date: 10/15/2014 13:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Cyanide, Total		0.01	0.0025

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 2540G RL Date: 01/31/2010 13:27

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 2540G XRL Date: 01/31/2010 13:31

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 9034 MDL Date: 01/07/2010 12:11  
Prep Method: AVSSEM

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Acid Volatile Sulfides (AVS)		30	6.0001

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY - SEM/AVS

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 9034 XMDL Date: 01/07/2010 12:12

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Acid Volatile Sulfides (AVS)		3	0.5897

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 9071B MDL Date: 01/27/2011 15:52  
Prep Method: 9071B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
HEM		166.7	23.15

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: NOEQUIP  
Method: 9071B XMDL Date: 01/27/2011 15:52

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
HEM		5	1.4986



9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: FLASHEA  
Method: Lloyd Kahn MDL Date: 05/25/2012 11:26

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Total Organic Carbon - Duplicates		1000	88.72

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-37750-1  
SDG Number: \_\_\_\_\_  
Matrix: Sediment Instrument ID: FLASHEA  
Method: Lloyd Kahn XMDL Date: 01/25/2011 12:50

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Total Organic Carbon - Duplicates		1000	250.95

12-IN  
PREPARATION LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: 9010C

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LLCS 180-122578/1-A	10/24/2014 07:30	122578		50	50
HLCS 180-122578/2-A	10/24/2014 07:30	122578		50	50
LCS 180-122578/3-A	10/24/2014 07:30	122578	1.00		50
MB 180-122578/4-A	10/24/2014 07:30	122578	2.00		50
180-37750-2	10/24/2014 07:30	122578	2.01		50
180-37750-3	10/24/2014 07:30	122578	2.03		50
180-37750-5	10/24/2014 07:30	122578	2.04		50
180-37750-6	10/24/2014 07:30	122578	1.95		50
180-37750-7	10/24/2014 07:30	122578	1.99		50

12-IN  
PREPARATION LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: 9010C

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LLCS 180-122877/1-A	10/27/2014 12:40	122877		50	50
HLCS 180-122877/2-A	10/27/2014 12:40	122877		50	50
LCS 180-122877/3-A	10/27/2014 12:40	122877	1.00		50
MB 180-122877/4-A	10/27/2014 12:40	122877	2.00		50
180-37750-1	10/27/2014 12:40	122877	2.05		50
180-37750-4	10/27/2014 12:40	122877	2.00		50
180-37750-4 MS	10/27/2014 12:40	122877	1.98		50
180-37750-4 MSD	10/27/2014 12:40	122877	2.05		50
180-37750-8	10/27/2014 12:40	122877	2.06		50
180-37750-9	10/27/2014 12:40	122877	2.05		50

12-IN  
PREPARATION LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: AVSSEM

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 180-121963/1-A	10/19/2014 14:32	121963	10.00		50
LCS 180-121963/2-A	10/19/2014 14:32	121963	10.00		50
180-37750-4	10/19/2014 14:32	121963	10.01		50
180-37750-4 MS	10/19/2014 14:32	121963	9.94		50
180-37750-4 MSD	10/19/2014 14:32	121963	9.96		50
180-37750-1	10/19/2014 14:32	121963	10.04		50
180-37750-2	10/19/2014 14:32	121963	9.95		50
180-37750-3	10/19/2014 14:32	121963	10.01		50
180-37750-5	10/19/2014 14:32	121963	10.00		50
180-37750-6	10/19/2014 14:32	121963	10.00		50
180-37750-7	10/19/2014 14:32	121963	9.98		50
180-37750-8	10/19/2014 14:32	121963	10.02		50
180-37750-9	10/19/2014 14:32	121963	10.05		50

12-IN  
PREPARATION LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Prep Method: 9071B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (g)
MB 180-122780/1-A	10/27/2014 06:23	122780	30.0		30.0
LCS 180-122780/2-A	10/27/2014 06:23	122780	30.0		30.0
180-37750-4 MS	10/27/2014 06:23	122780	30.2		30.0
180-37750-4 MSD	10/27/2014 06:23	122780	30.3		30.0
180-37750-4	10/27/2014 06:23	122780	30.1		30.0
180-37750-5	10/27/2014 06:23	122780	30.2		30.0
180-37750-6	10/27/2014 06:23	122780	30.0		30.0
180-37750-7	10/27/2014 06:23	122780	30.3		30.0
180-37750-8	10/27/2014 06:23	122780	30.4		30.0
180-37750-9	10/27/2014 06:23	122780	30.1		30.0

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: SEAL2 Method: 9014

Start Date: 10/24/2014 10:03 End Date: 10/24/2014 11:33

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C N															
ZZZZZZ			10:03																
ZZZZZZ			10:06																
ZZZZZZ			10:08																
ZZZZZZ			10:10																
ZZZZZZ			10:12																
ZZZZZZ			10:14																
ZZZZZZ			10:16																
ICV 180-122641/8	1		10:19	X															
ICB 180-122641/9	1		10:21	X															
CCV 180-122641/10	1		10:23	X															
CCB 180-122641/11	1		10:25	X															
LLCS 180-122578/1-A	1	T	10:27	X															
HLCS 180-122578/2-A	1	T	10:29	X															
LCS 180-122578/3-A	10	T	10:31	X															
MB 180-122578/4-A	1	T	10:34	X															
ZZZZZZ			10:36																
ZZZZZZ			10:38																
ZZZZZZ			10:40																
ZZZZZZ			10:42																
ZZZZZZ			10:44																
ZZZZZZ			10:46																
CCV 180-122641/22	1		10:49	X															
CCB 180-122641/23	1		10:51	X															
ZZZZZZ			10:53																
ZZZZZZ			10:55																
ZZZZZZ			10:57																
ZZZZZZ			10:59																
ZZZZZZ			11:01																
ZZZZZZ			11:04																
ZZZZZZ			11:06																
ZZZZZZ			11:08																
ZZZZZZ			11:10																
ZZZZZZ			11:12																
CCV 180-122641/34	1		11:14	X															
CCB 180-122641/35	1		11:16	X															
ZZZZZZ			11:19																
ZZZZZZ			11:21																
180-37750-2	1	T	11:23	X															
180-37750-3	1	T	11:25	X															
180-37750-5	1	T	11:26	X															
180-37750-6	1	T	11:28	X															
180-37750-7	1	T	11:30	X															

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: SEAL2 Method: 9014

Start Date: 10/24/2014 10:03 End Date: 10/24/2014 11:33

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				C N																	
CCV 180-122641/43	1		11:31	X																	
CCB 180-122641/44	1		11:33	X																	

Prep Types

T = Total/NA



13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: SEAL2 Method: 9014

Start Date: 10/27/2014 15:10 End Date: 10/27/2014 16:24

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C N															
ICV 180-122911/1	1		15:10	X															
ICB 180-122911/2	1		15:12	X															
CCV 180-122911/3	1		15:14	X															
CCB 180-122911/4	1		15:16	X															
LLCS 180-122877/1-A	1	T	15:18	X															
HLCS 180-122877/2-A	1	T	15:20	X															
LCS 180-122877/3-A	10	T	15:23	X															
MB 180-122877/4-A	1	T	15:25	X															
ZZZZZZ			15:27																
180-37750-1	1	T	15:29	X															
180-37750-4	1	T	15:31	X															
180-37750-4 MS	1	T	15:33	X															
180-37750-4 MSD	1	T	15:36	X															
180-37750-8	1	T	15:38	X															
CCV 180-122911/15	1		15:40	X															
CCB 180-122911/16	1		15:42	X															
180-37750-9	1	T	15:44	X															
ZZZZZZ			15:46																
ZZZZZZ			15:48																
ZZZZZZ			15:51																
ZZZZZZ			15:53																
ZZZZZZ			15:55																
ZZZZZZ			15:57																
ZZZZZZ			15:59																
ZZZZZZ			16:01																
ZZZZZZ			16:03																
CCV 180-122911/27	1		16:06	X															
CCB 180-122911/28	1		16:08	X															
ZZZZZZ			16:10																
ZZZZZZ			16:12																
ZZZZZZ			16:14																
ZZZZZZ			16:16																
ZZZZZZ			16:18																
ZZZZZZ			16:19																
ZZZZZZ			16:21																
CCV 180-122911/36			16:23																
CCB 180-122911/37			16:24																

Prep Types

T = Total/NA

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: NOEQUIP Method: 2540G

Start Date: 10/16/2014 17:01 End Date: 10/16/2014 17:01

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				M o i s t																	
180-37750-4	1	T	17:01	X																	
180-37750-4 DU	1	T	17:01	X																	
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
180-37750-1	1	T	17:01	X																	
180-37750-2	1	T	17:01	X																	
180-37750-3	1	T	17:01	X																	
180-37750-5	1	T	17:01	X																	
180-37750-6	1	T	17:01	X																	
180-37750-7	1	T	17:01	X																	
180-37750-8	1	T	17:01	X																	
180-37750-8 DU	1	T	17:01	X																	
180-37750-9	1	T	17:01	X																	
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		
ZZZZZZ			17:01																		

Prep Types

T = Total/NA

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: NOEQUIP Method: 9034

Start Date: 10/20/2014 14:11 End Date: 10/20/2014 14:11

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				S 2																	
ICV 180-122072/1	1		14:11	X																	
ICB 180-122072/2	1		14:11	X																	
MB 180-121963/1-A	1	V	14:11	X																	
LCS 180-121963/2-A	1	V	14:11	X																	
180-37750-4	1	V	14:11	X																	
180-37750-4 MS	1	V	14:11	X																	
180-37750-4 MSD	1	V	14:11	X																	
180-37750-1	1	V	14:11	X																	
180-37750-2	1	V	14:11	X																	
180-37750-3	1	V	14:11	X																	
180-37750-5	1	V	14:11	X																	
180-37750-6	1	V	14:11	X																	
CCV 180-122072/13	1		14:11	X																	
CCB 180-122072/14	1		14:11	X																	
180-37750-7	1	V	14:11	X																	
180-37750-8	1	V	14:11	X																	
180-37750-9	1	V	14:11	X																	
ZZZZZZ			14:11																		
ZZZZZZ			14:11																		
ZZZZZZ			14:11																		
CCV 180-122072/21	1		14:11	X																	
CCB 180-122072/22	1		14:11	X																	

Prep Types

V = SEM/AVS

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: NOEQUIP Method: 9071B

Start Date: 10/27/2014 06:23 End Date: 10/27/2014 06:23

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H E M															
MB 180-122780/1-A	1	T	06:23	X															
LCS 180-122780/2-A	1	T	06:23	X															
180-37750-4 MS	1	T	06:23	X															
180-37750-4 MSD	1	T	06:23	X															
180-37750-4	1	T	06:23	X															
180-37750-5	1	T	06:23	X															
180-37750-6	1	T	06:23	X															
180-37750-7	1	T	06:23	X															
180-37750-8	1	T	06:23	X															
180-37750-9	1	T	06:23	X															
ZZZZZZ			06:23																
ZZZZZZ			06:23																
ZZZZZZ			06:23																
ZZZZZZ			06:23																
ZZZZZZ			06:23																
ZZZZZZ			06:23																
ZZZZZZ			06:23																

Prep Types

T = Total/NA

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: FLASHEA Method: Lloyd Kahn

Start Date: 10/23/2014 10:21 End Date: 10/23/2014 17:42

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				T O C D																	
CCV 180-122589/1	1		10:21	X																	
CCB 180-122589/2	1		10:28	X																	
MB 180-122589/3	1	T	10:33	X																	
LCS 180-122589/4	1	T	10:44	X																	
ZZZZZZ			10:56																		
RINSE 180-122589/6			11:06																		
ZZZZZZ			11:11																		
RINSE 180-122589/8			11:22																		
ZZZZZZ			11:27																		
RINSE 180-122589/10			11:38																		
ZZZZZZ			11:43																		
RINSE 180-122589/12			11:53																		
ZZZZZZ			11:59																		
RINSE 180-122589/14			12:09																		
CCV 180-122589/15	1		12:14	X																	
CCB 180-122589/16	1		12:20	X																	
ZZZZZZ			12:25																		
RINSE 180-122589/18			12:35																		
ZZZZZZ			12:41																		
RINSE 180-122589/20			12:51																		
ZZZZZZ			12:56																		
RINSE 180-122589/22			13:14																		
ZZZZZZ			13:19																		
RINSE 180-122589/24			13:29																		
ZZZZZZ			13:35																		
RINSE 180-122589/26			13:45																		
ZZZZZZ			13:50																		
RINSE 180-122589/28			14:01																		
CCV 180-122589/29	1		14:06	X																	
CCB 180-122589/30	1		14:11	X																	
180-37750-1	1	T	14:17	X																	
RINSE 180-122589/32			14:27																		
180-37750-2	1	T	14:32	X																	
RINSE 180-122589/34			14:43																		
180-37750-3	1	T	14:48	X																	
RINSE 180-122589/36			14:59																		
180-37750-5	1	T	15:04	X																	
RINSE 180-122589/38			15:14																		
180-37750-6	1	T	15:20	X																	
RINSE 180-122589/40			15:30																		
180-37750-7	1	T	15:36	X																	
RINSE 180-122589/42			15:46																		

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Instrument ID: FLASHEA Method: Lloyd Kahn

Start Date: 10/23/2014 10:21 End Date: 10/23/2014 17:42

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				T O C D																	
CCV 180-122589/43	1		15:51	X																	
CCB 180-122589/44	1		15:57	X																	
180-37750-8	1	T	16:02	X																	
RINSE 180-122589/46			16:12																		
180-37750-9	1	T	16:18	X																	
RINSE 180-122589/48			16:28																		
180-37750-4	1	T	16:33	X																	
RINSE 180-122589/50			16:44																		
180-37750-4 MS	1	T	16:49	X																	
RINSE 180-122589/52			17:00																		
180-37750-4 MSD	1	T	17:05	X																	
RINSE 180-122589/54			17:15																		
180-37750-4 DU	1	T	17:21	X																	
RINSE 180-122589/56			17:31																		
CCV 180-122589/57	1		17:36	X																	
CCB 180-122589/58	1		17:42	X																	

Prep Types

T = Total/NA



# AQ2 Report

**Serial Number:** SEAL 2  
**Report Requested By:** Test America  
**Date & Time:** 10/24/2014 12:15:44  
**Tray Number:** 1  
**Tray Name:** 14.10.24 (07-38)

10/24/14

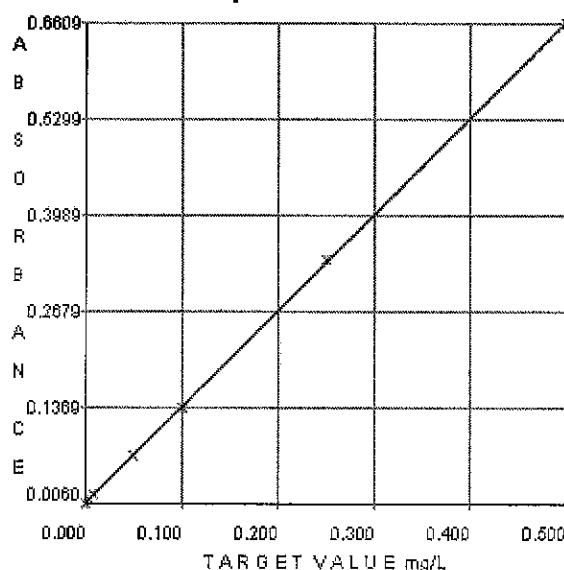
## CYANIDE

### Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0060	-0.0005	0.0000	
S2	0.0126	0.0046	0.0050	-8.5845
S3	0.0188	0.0093	0.0100	-7.3808
S4	0.0722	0.0500	0.0500	-0.0124
S5	0.1383	0.1003	0.1000	0.3230
S6	0.3384	0.2528	0.2500	1.1155
S7	0.6609	0.4986	0.5000	-0.2878

Polynomial Order: 1  
 Correlation Coefficient: 1.0000  
 Carryover: 0.0  
 Date & Time: 10/24/2014 10:16:47

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
CN - Phos Buff	1250915	TestAmerica	07/11/2015 22:00:00
CN - Chl-T	1368077	TestAmerica	10/28/2014 22:00:00
CN - PyrBrbA	1059109	TestAmerica	11/08/2014 21:00:00

Cup Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
1	S1	STANDARD 1		0.0060	0.005958			10/24/2014 10:03:51
2	S2	STANDARD 2		0.0126	0.012611			10/24/2014 10:06:00
3	S3	STANDARD 3		0.0188	0.018767			10/24/2014 10:08:09
4	S4	STANDARD 4		0.0722	0.072223			10/24/2014 10:10:19
5	S5	STANDARD 5		0.1383	0.138275			10/24/2014 10:12:30
6	S6	STANDARD 6		0.3384	0.338369			10/24/2014 10:14:38
7	S7	STANDARD 7		0.6609	0.660917			10/24/2014 10:16:47
8	C15	ICV		0.2029	mg/L	0.272956		10/24/2014 10:19:00
9	C17	ICB		0.0007	mg/L	0.007510		10/24/2014 10:21:09
	C11	C C V		0.1018	mg/L	0.140188		10/24/2014 10:23:18
	C12	C C B		-0.0007	mg/L	0.005675		10/24/2014 10:25:27
10	U1	lcs 180-1225781-a		0.0480	mg/L	0.069608		10/24/2014 10:27:36
11	U2	hics 180-1225782-a		0.2436	mg/L	0.326335		10/24/2014 10:29:45
12	U3	lcs 180-1225783-a		1.4014	mg/L	0.025005	x 10.000 x 10.000	10/24/2014 10:31:53
13	U4	mb 180-1225784-a		-0.0002	mg/L	0.006382		10/24/2014 10:34:01

14	U5	180-37728-b-10-f	-0.0001	mg/L	0.006442	10/24/2014 10:36:12
15	U6	180-37728-b-10-g ms	0.1915	mg/L	0.257959	10/24/2014 10:38:22
16	U7	180-37728-b-11-f	0.0031	mg/L	0.010744	10/24/2014 10:40:31
17	U8	180-37728-b-12-f	0.0040	mg/L	0.011926	10/24/2014 10:42:38
18	U9	180-37728-b-13-f	0.0211	mg/L	0.034332	10/24/2014 10:44:47
19	U10	180-37728-b-14-f	0.0022	mg/L	0.009478	10/24/2014 10:46:55
	C11	C C V	0.0985	mg/L	0.135832	10/24/2014 10:49:02
	C12	C C B	-0.0006	mg/L	0.005807	10/24/2014 10:51:11
20	U11	180-37728-b-15-f	0.0019	mg/L	0.009069	10/24/2014 10:53:20
21	U12	180-37728-b-16-d	0.0017	mg/L	0.008855	10/24/2014 10:55:27
22	U13	180-37728-b-17-d	0.0048	mg/L	0.012943	10/24/2014 10:57:35
23	U14	180-37728-b-18-d	0.0359	mg/L	0.053785	10/24/2014 10:59:43
24	U15	180-37728-b-19-d	0.0009	mg/L	0.007834	10/24/2014 11:01:53
25	U16	180-37728-b-20-d	0.0019	mg/L	0.009126	10/24/2014 11:04:04
26	U17	180-37728-b-21-d	0.0092	mg/L	0.018670	10/24/2014 11:06:12
27	U18	180-37728-p-22-e	0.0089	mg/L	0.018260	10/24/2014 11:08:19
28	U19	180-37728-f-22-g ms	0.1915	mg/L	0.257874	10/24/2014 11:10:27
29	U20	180-37728-f-22-h ms	0.1880	mg/L	0.253388	10/24/2014 11:12:35
	C11	C C V	0.0967	mg/L	0.133468	10/24/2014 11:14:43
	C12	C C B	-0.0006	mg/L	0.005775	10/24/2014 11:16:52
30	U21	180-37728-b-23-d	0.0002	mg/L	0.006843	10/24/2014 11:19:00
31	U22	180-37728-b-24-d	0.0002	mg/L	0.006938	10/24/2014 11:21:11
32	U23	180-37750-b-2-c	-0.0003	mg/L	0.006243	10/24/2014 11:23:21
33	U24	180-37750-b-3-c	-0.0008	mg/L	0.005524	10/24/2014 11:25:09
34	U25	180-37750-d-5-c	-0.0002	mg/L	0.006371	10/24/2014 11:26:57
35	U26	180-37750-b-6-c	-0.0007	mg/L	0.005712	10/24/2014 11:28:36
36	U27	180-37750-b-7-c	0.0004	mg/L	0.007121	10/24/2014 11:30:15
	C11	C C V	0.0998	mg/L	0.137597	10/24/2014 11:31:55
	C12	C C B	-0.0003	mg/L	0.006208	10/24/2014 11:33:35





# AQ2 Report

Serial Number: SEAL 2  
 Report Requested By: Test America  
 Date & Time: 10/27/2014 16:29:17  
 Tray Number: 2  
 Tray Name: 14.10.27 (12-52)

*10.27.14*

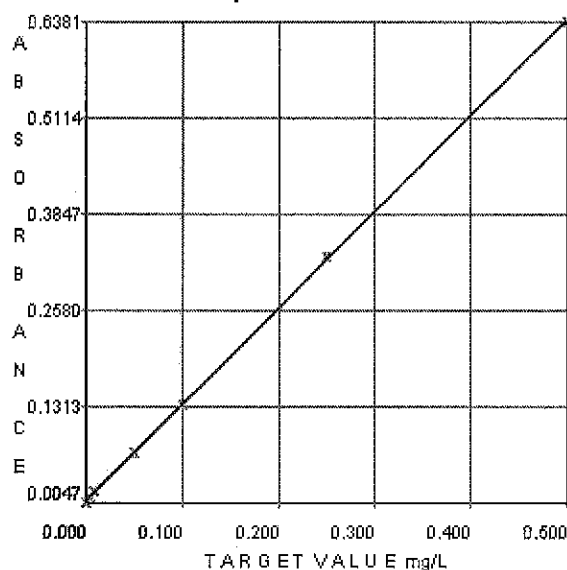
## CYANIDE

### Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0047	-0.0007	0.0000	
S90	0.0112	0.0045	0.0050	-10.4864
S91	0.0181	0.0099	0.0100	-1.4469
S92	0.0687	0.0498	0.0500	-0.4855
S93	0.1320	0.0996	0.1000	-0.3908
S94	0.3278	0.2538	0.2500	1.5238
S95	0.6381	0.4982	0.5000	-0.3588
S0	0.0047	-0.0007	0.0000	

Polynomial Order: 1  
 Correlation Coefficient: 1.0000  
 Carryover: 0.0  
 Date & Time: 10/27/2014 11:50:55

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
CN - Phos Buff	1250915	TestAmerica	07/11/2015 22:00:00
CN - Chl-T	1368077	TestAmerica	10/28/2014 22:00:00
CN - PyrBrbA	1304925	TestAmerica	02/28/2015 21:00:00

Cup Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
1	C15	ICV	0.2172	mg/L	0.281358			10/27/2014 15:10:12
2	C17	ICB	-0.0001	mg/L	0.005492			10/27/2014 15:12:21
	C11	C C V	0.1012	mg/L	0.134057			10/27/2014 15:14:29
	C12	C C B	-0.0004	mg/L	0.005013			10/27/2014 15:16:38
3	U1	ilcs 180-1228771-a	0.0471	mg/L	0.065313			10/27/2014 15:18:47
4	U2	hlcs 180-1228772-a	0.2490	mg/L	0.321697			10/27/2014 15:20:56
5	U3	lcs 180-1228773-a	1.5381	mg/L	0.200836	x 10.000		10/27/2014 15:23:05
6	U4	mb 180-1228774-a	-0.0003	mg/L	0.005228			10/27/2014 15:25:14
7	U5	180-37720-b-1-a	0.0011	mg/L	0.006967			10/27/2014 15:27:24
8	U6	180-37750-b-1-c	0.0035	mg/L	0.010034			10/27/2014 15:29:35
9	U7	180-37750-d-4-c	0.0011	mg/L	0.006937			10/27/2014 15:31:44
10	U8	180-37750-b-4-e ms	0.2068	mg/L	0.268054			10/27/2014 15:33:54
11	U9	180-37750-b-4-f msd	0.2046	mg/L	0.265332			10/27/2014 15:36:03
12	U10	180-37750-b-8-c	0.0085	mg/L	0.016405			10/27/2014 15:38:13
	C11	C C V	0.1035	mg/L	0.136965			10/27/2014 15:40:22

	C12	C C B	-0.0002	mg/L	0.005336	10/27/2014 15:42:31
13	U11	180-37750-b-9-c	0.0146	mg/L	0.024131	10/27/2014 15:44:39
14	U12	180-37760-c-11-a	0.2089	mg/L	0.270802	10/27/2014 15:46:48
15	U13	180-37760-b-12-a	0.0489	mg/L	0.067583	10/27/2014 15:48:56
16	U14	180-37806-d-1-a	-0.0001	mg/L	0.005455	10/27/2014 15:51:04
17	U15	180-37806-d-2-a	0.0136	mg/L	0.022853	10/27/2014 15:53:14
18	U16	180-37806-d-3-a	0.0023	mg/L	0.008500	10/27/2014 15:55:25
19	U17	180-37806-d-4-a	0.0015	mg/L	0.007470	10/27/2014 15:57:33
20	U18	180-37806-d-4-b ms	0.2156	mg/L	0.279327	10/27/2014 15:59:41
21	U19	180-37806-d-5-a	0.0072	mg/L	0.014735	10/27/2014 16:01:48
22	U20	180-37806-d-6-a	0.0013	mg/L	0.007160	10/27/2014 16:03:57
	C11	C C V	0.1009	mg/L	0.133692	10/27/2014 16:06:05
	C12	C C B	-0.0013	mg/L	0.003930	10/27/2014 16:08:13
23	U21	180-37806-b-7-g	-0.0001	mg/L	0.005407	10/27/2014 16:10:21
24	U22	180-37806-d-9-a	0.0037	mg/L	0.010246	10/27/2014 16:12:32
25	U23	180-37806-d-10-a	0.0015	mg/L	0.007513	10/27/2014 16:14:42
26	U24	180-37806-d-11-a	0.0046	mg/L	0.011358	10/27/2014 16:16:29
27	U25	180-37806-d-12-a	0.0047	mg/L	0.011504	10/27/2014 16:18:17
28	U26	180-37806-d-13-a	0.0020	mg/L	0.008096	10/27/2014 16:19:57
29	U27	180-37806-d-14-c	0.0022	mg/L	0.008385	10/27/2014 16:21:36
	C11	C C V	0.1016	mg/L	0.134523	10/27/2014 16:23:16
	C12	C C B	-0.0002	mg/L	0.005255	10/27/2014 16:24:56

122072 & 122075

STANDARDIZATION OF IODINE TITRANT		
DATE:	Lot #:	TALS Reagent #:
Trial 1: <u>11.65</u> 20.12	Trial 2: <u>11.61</u> 20.16	Trial 3: <u>11.65</u> 20.12
Average: <u>20.13</u> <i>mb w/colof</i>		
Normality: <u>0.0211</u> <sup>0.0210</sup> <sub>3-30-10</sub> <u>0.0216</u>		
Date:	Analyst:	
$\text{N Iodine} = \left( \frac{\text{mL Na}_2\text{S}_2\text{O}_3}{\text{mL of Iodine Solution}} \right) \times \text{N of Na}_2\text{S}_2\text{O}_3$		
STANDARDIZATION OF SODIUM THIOSULFATE TITRANT		
DATE: <u>10/20/14</u>	Lot #:	TALS Reagent #:
Trial 1: <u>11.65</u>	Trial 2: <u>11.61</u>	Trial 3: <u>11.63</u>
Average: <u>11.63</u>		
Normality: <u>0.0211</u> <sup>0.0210</sup> <sub>3-30-10</sub> <u>0.0215</u>		
Date: <u>10/20/14</u>	Analyst: <u>M. Buckner</u>	
$\text{N Na}_2\text{S}_2\text{O}_3 = \frac{(10 \text{ mL of KH(IO}_3)_2)(0.025 \text{ N KH(IO}_3)_2)}{\text{mL of Na}_2\text{S}_2\text{O}_3}$		
Reviewed By:	Date:	

*12 - no significant change  
but calc. are incorrect @ 3-30-14*

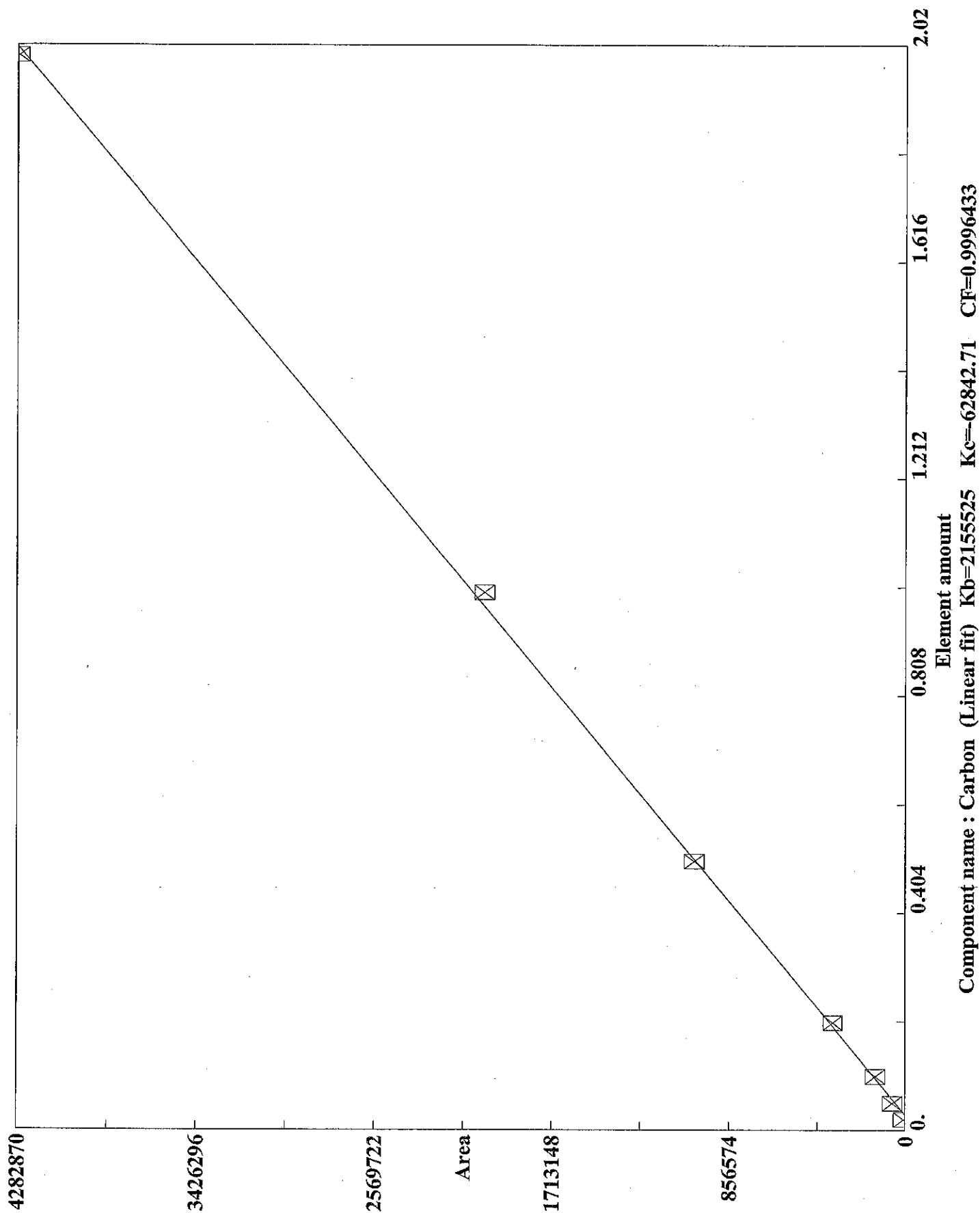
# General Chemistry Worksheet

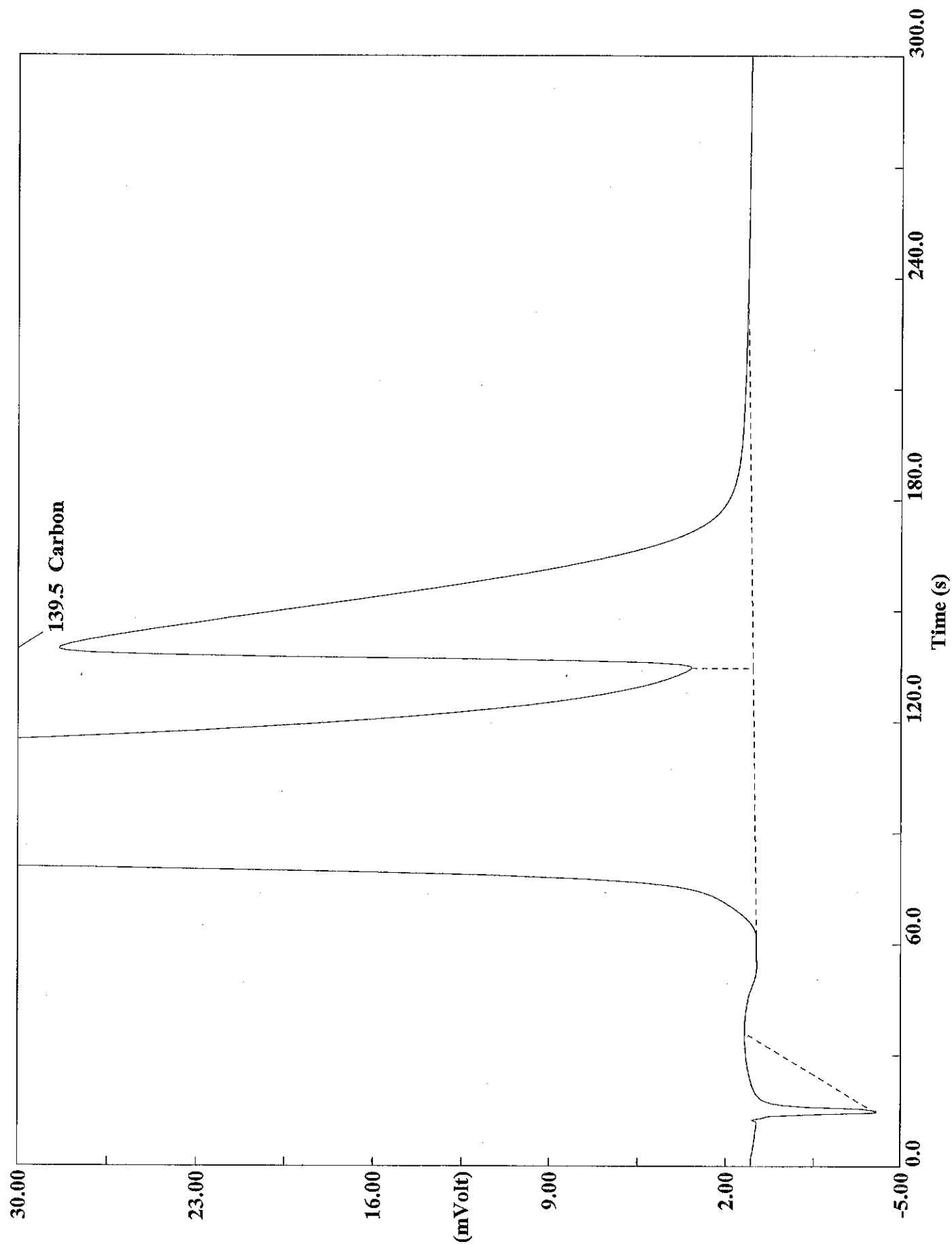
Date Open: Oct 20 2014 2:11PM  
Batch End:

Batch Number: 180-122072  
Method: 9034  
Analyst: Bucklaw, Michael E

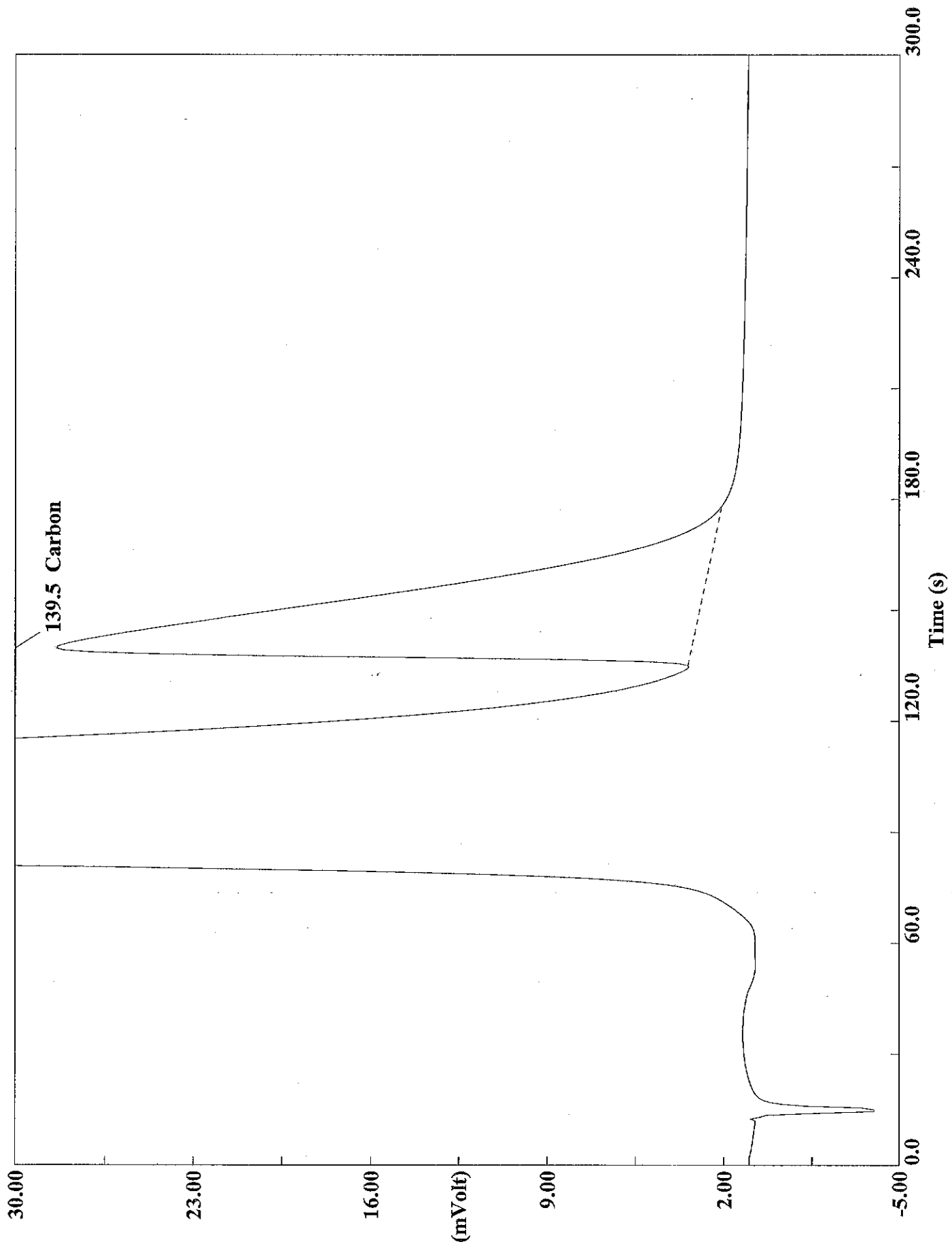
Lab ID	Client ID	Method Chain	Basis	Final weight/volume of sample	Amount of Iodine	First additional Buret Start volume	First additional Buret Stop volume	Volume of Titrant One Added	Calculation Message
ICV~180-122072/1		9034_Calc		50 mL	50 mL	0 mL	<del>0.00</del> 7.35	0 mL	Iodine Norm. is blank
ICB~180-122072/2		9034_Calc		50 mL	50 mL	0 mL	16.59		Iodine Norm. is blank
MB~180-121963/1-A		9034_Calc		50 mL	50 mL	0 mL	10.54		Iodine Norm. is blank
LCS~180-121963/2-A		9034_Calc		50 mL	50 mL	0 mL	7.29		Iodine Norm. is blank
180-37750-D-4-B		9034_Calc	V	50 mL	50 mL	0 mL	10.81		Iodine Norm. is blank
180-37750-B-4-C-M		9034_Calc	V	50 mL	50 mL	0 mL	7.40		Iodine Norm. is blank
180-37750-B-4-D-M		9034_Calc	V	50 mL	50 mL	0 mL	7.44		Iodine Norm. is blank
SD 180-37750-B-1-B		9034_Calc	V	50 mL	50 mL	0 mL	9.99		Iodine Norm. is blank
180-37750-B-2-B		9034_Calc	V	50 mL	50 mL	0 mL	2.65		Iodine Norm. is blank
180-37750-B-3-B		9034_Calc	V	50 mL	50 mL	0 mL	1.45		Iodine Norm. is blank
180-37750-D-5-B		9034_Calc	V	50 mL	50 mL	0 mL	1.33		Iodine Norm. is blank
180-37750-B-6-B		9034_Calc	V	50 mL	50 mL	0 mL	2.00		Iodine Norm. is blank
CCV~180-122072/1		9034_Calc		50 mL	50 mL	0 mL	7.29		Iodine Norm. is blank
CCB~180-122072/1		9034_Calc		50 mL	50 mL	0 mL	10.57		Iodine Norm. is blank
180-37750-B-7-B		9034_Calc	V	50 mL	50 mL	0 mL	10.15		Iodine Norm. is blank
180-37750-B-8-B		9034_Calc	V	50 mL	50 mL	0 mL	4.22		Iodine Norm. is blank
180-37750-B-9-B		9034_Calc	V	50 mL	50 mL	0 mL	5.09		Iodine Norm. is blank
180-37760-A-1-B		9034_Calc	V	50 mL	50 mL	0 mL	10.14		Iodine Norm. is blank
180-37760-A-2-B		9034_Calc	V	50 mL	50 mL	0 mL	9.93		Iodine Norm. is blank
180-37760-C-3-B		9034_Calc	V	50 mL	50 mL	0 mL	9.83		Iodine Norm. is blank
CCV~180-122072/2		9034_Calc		50 mL	50 mL	0 mL	7.31		Iodine Norm. is blank
CCB~180-122072/2		9034_Calc		50 mL	50 mL	0 mL	10.60		Iodine Norm. is blank

# Eager300 Calibration curve





Filename C:\data\January\A091114001.DAT  
Sample name :BY PASS Analysed :09/11/2014 04:09



# Eager 300 Report

Page: 1 Sample: BY PASS (A091114001)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114001  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:09 Printed : 9/11/2014 05:09  
Sample ID : BY PASS (# 1)  
Instrument N. : Instrument #1  
Analysis Type : By-Pass (Area) Sample weight :---

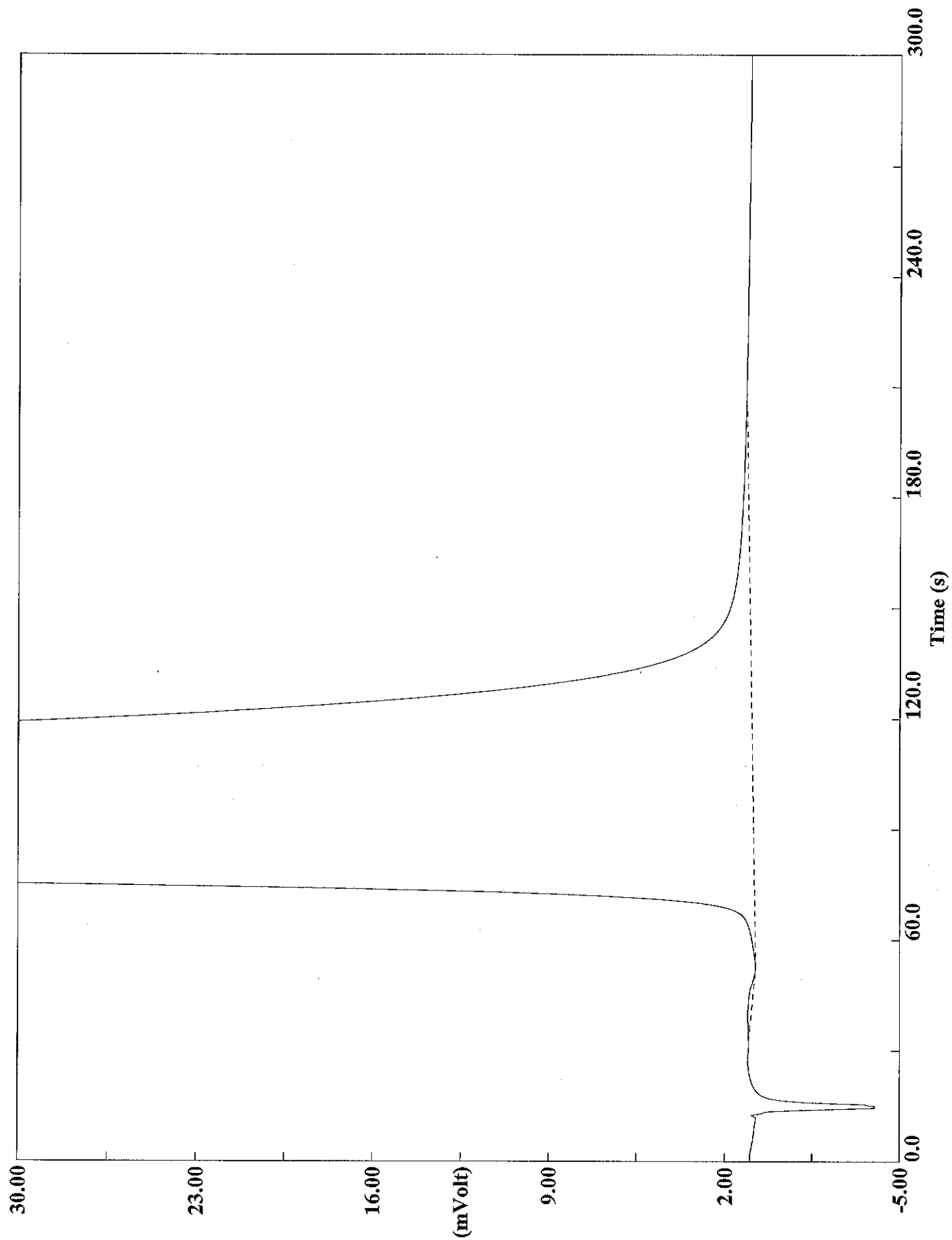
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

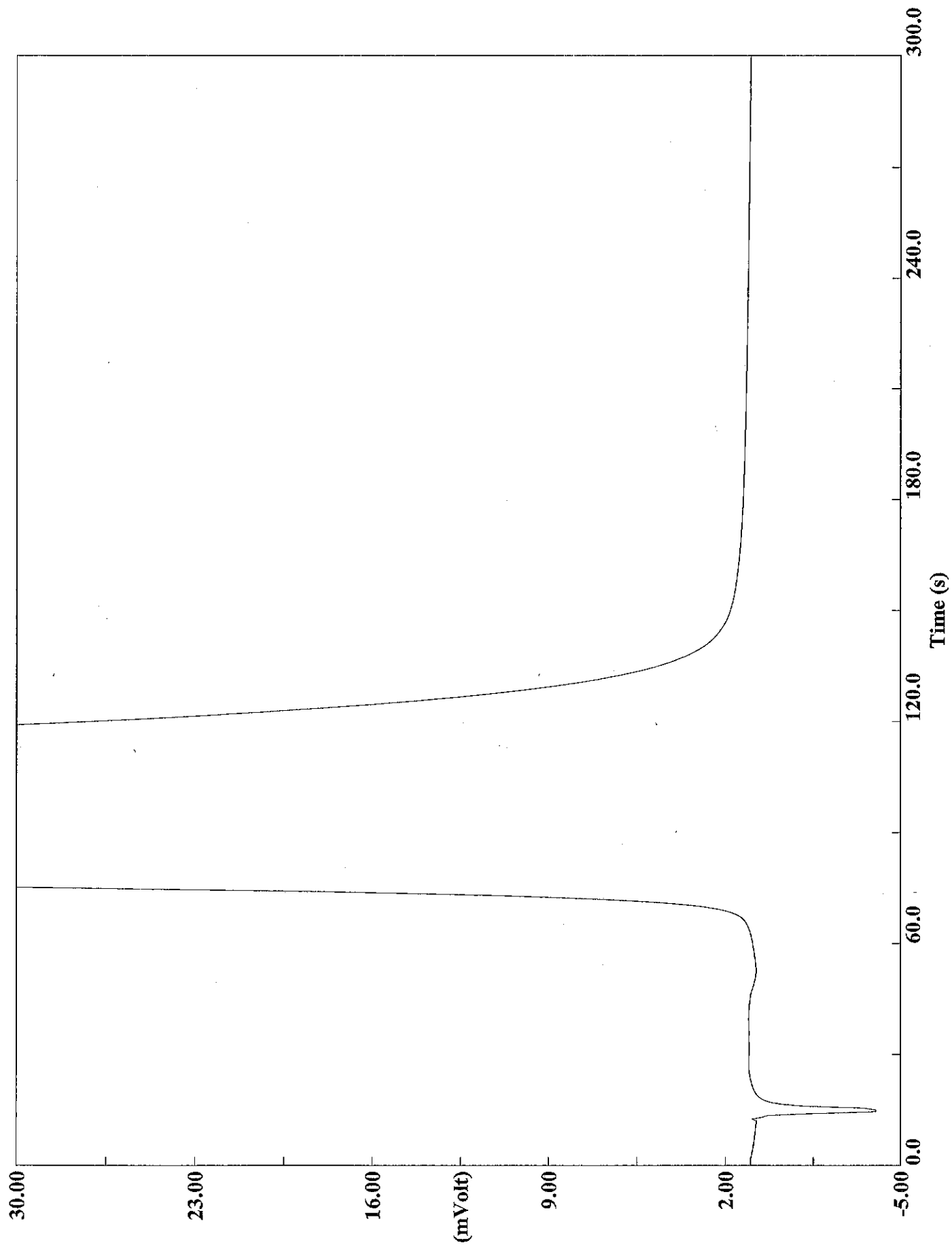
Element Name	%	Ret.Time	Area	BC	Area ratio
Carbon	0.0000	140	4455243 mi		1.000000



Manual Integration on 09/11/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A091114002.DAT  
Sample name :BLANK Analysed :09/11/2014 04:14



Filename C:\data\January\A091114002.DAT  
Sample name :BLANK Analysed :09/11/2014 04:14

# Eager 300 Report

Page: 1 Sample: BLANK (A091114002)

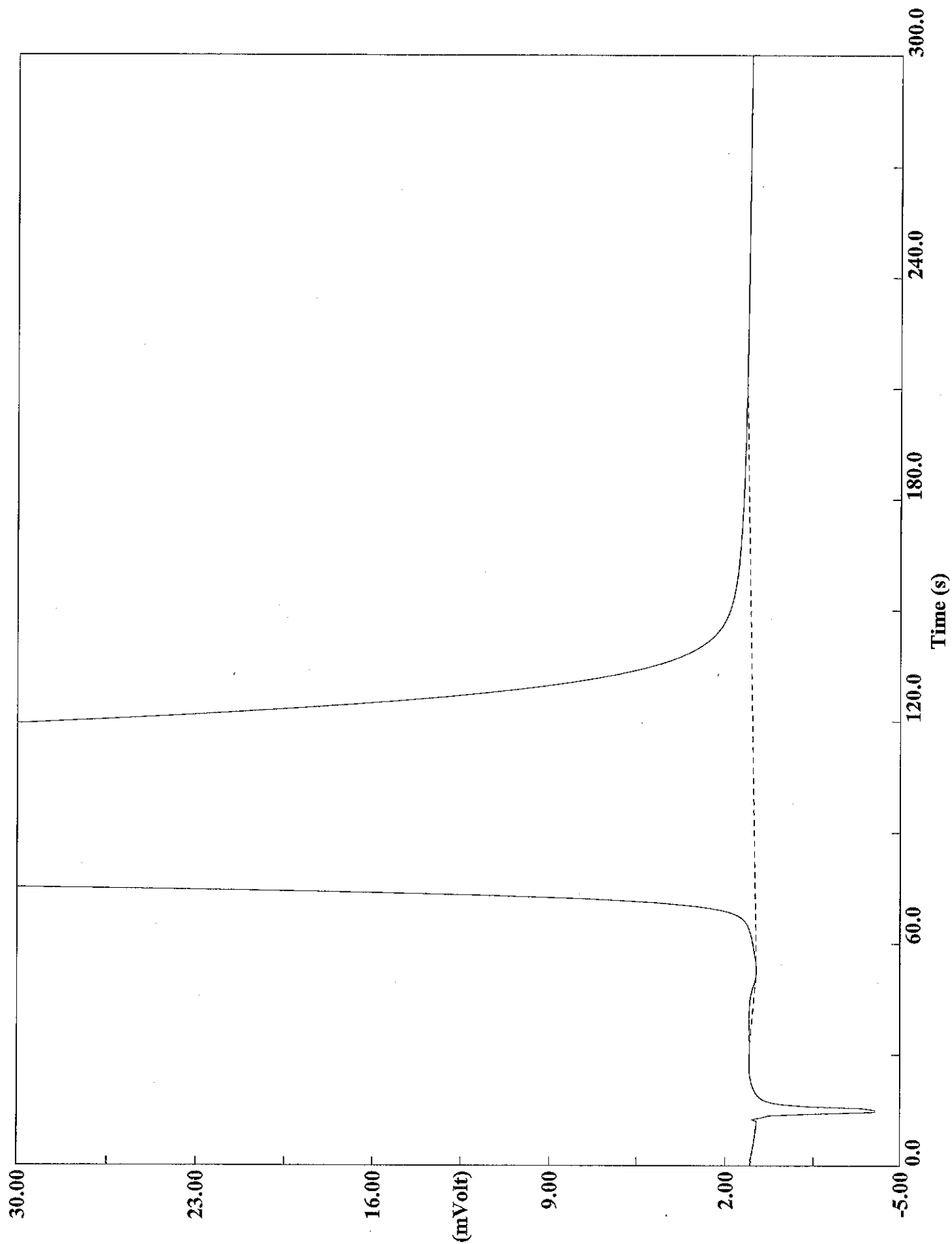
Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114002  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:14 Printed : 9/11/2014 05:09  
Sample ID : BLANK (# 2)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

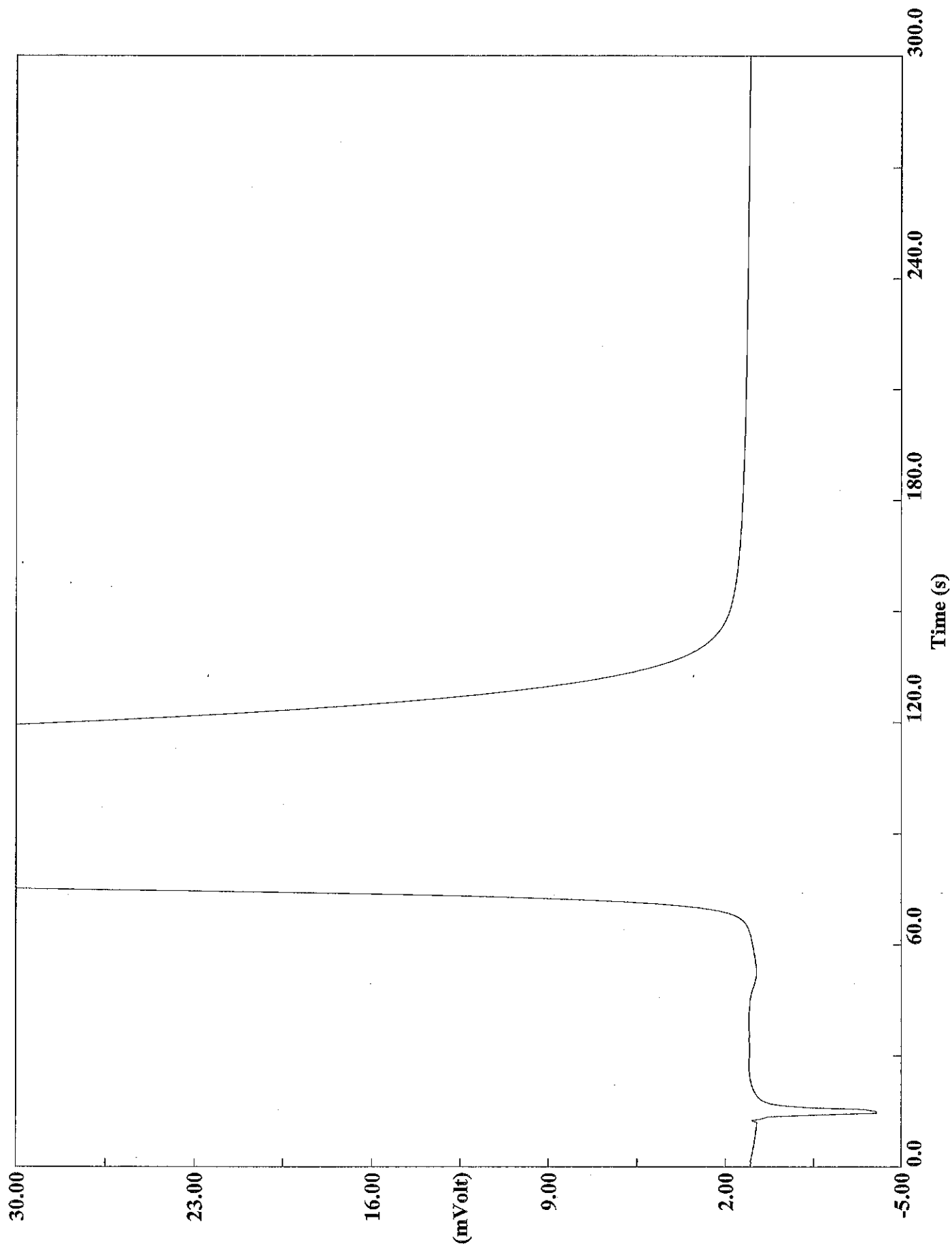
Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Filename C:\data\January\A091114003.DAT

Sample name :BLANK Analysed :09/11/2014 04:19



Filename C:\data\January\A091114003.DAT  
Sample name :BLANK Analysed :09/11/2014 04:19

# Eager 300 Report

Page: 1 Sample: BLANK (A091114003)

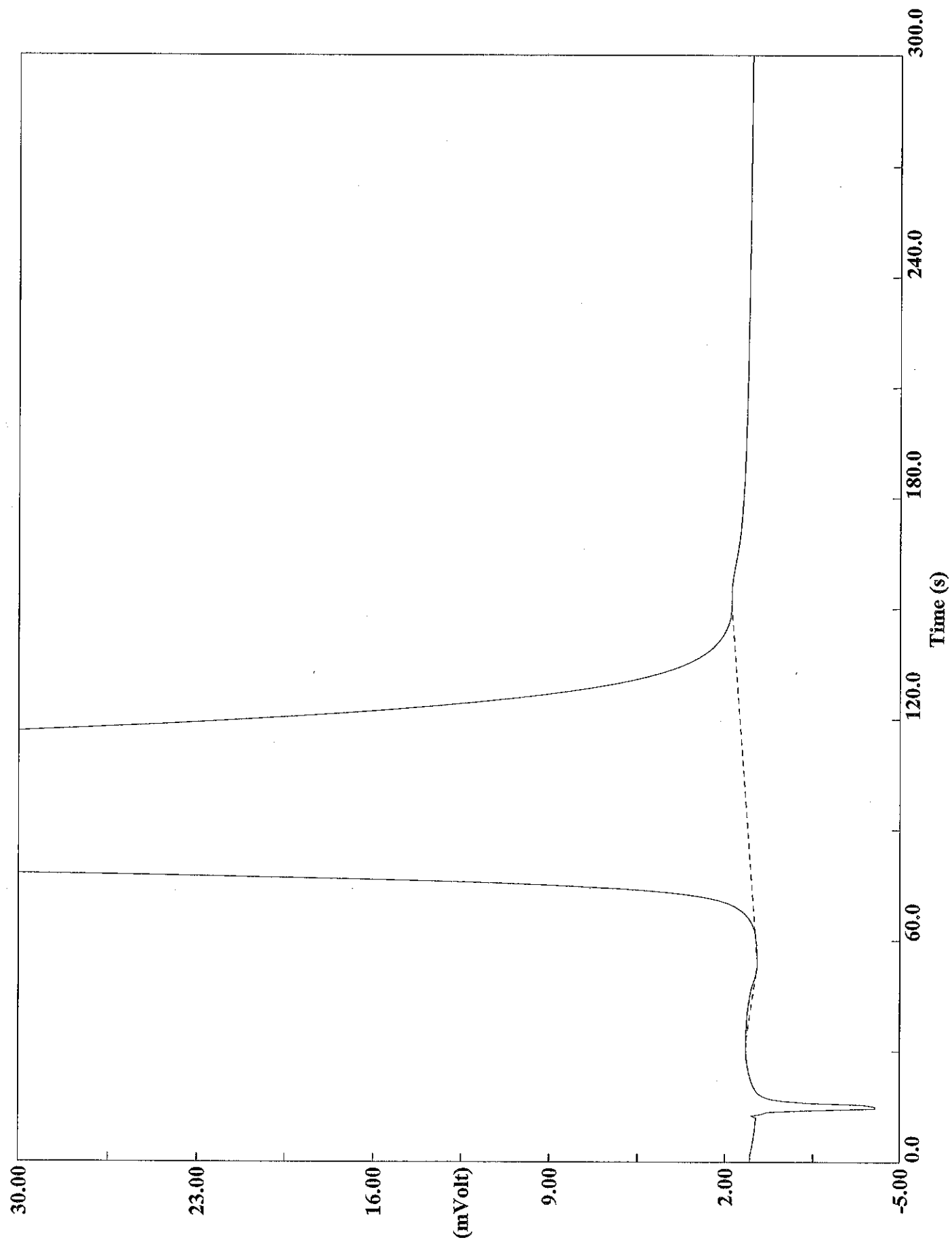
Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114003  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:19 Printed : 9/11/2014 05:09  
Sample ID : BLANK (# 3)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

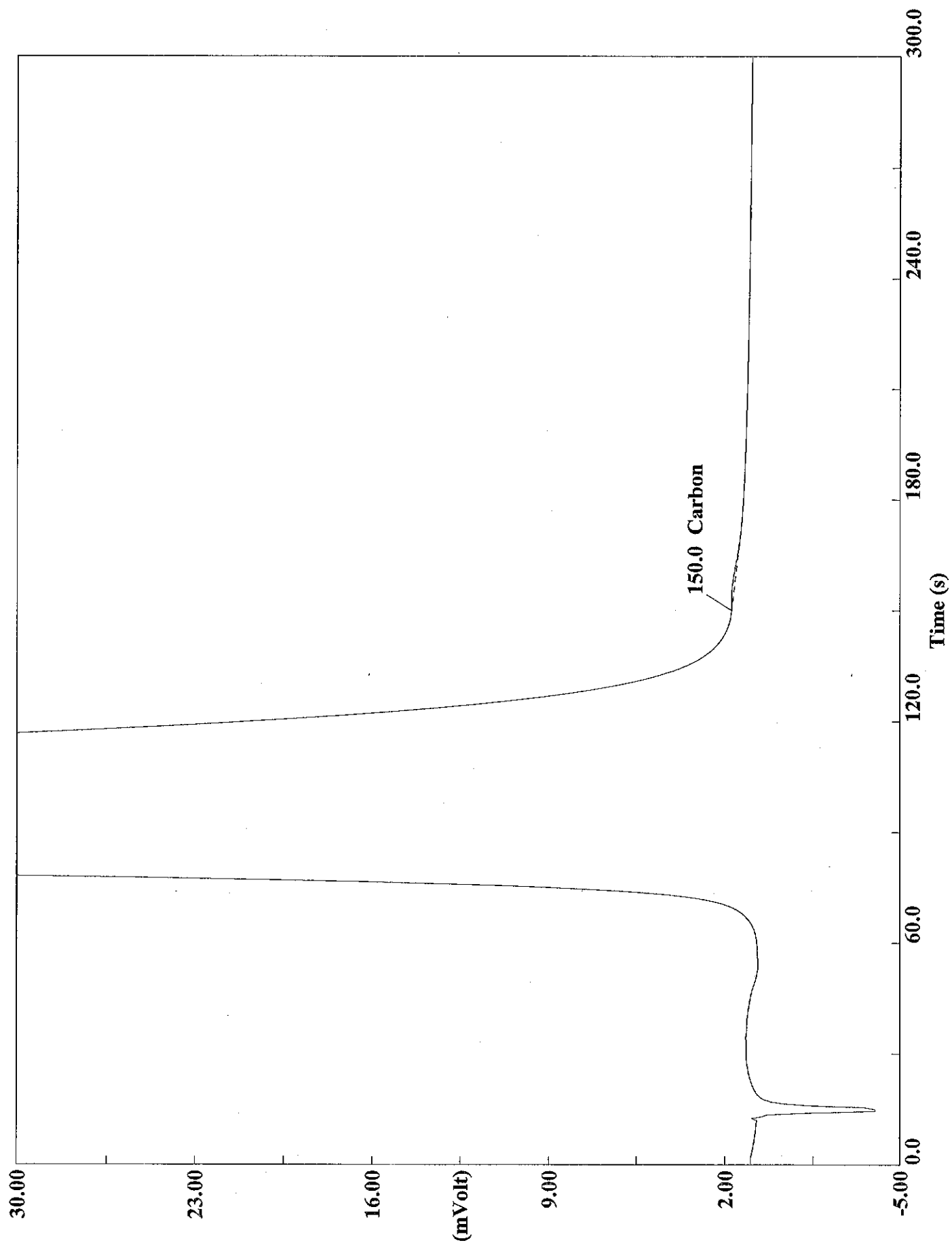
Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Filename C:\data\January\A091114004.DAT

Sample name : 1,000 KHP Analysed : 09/11/2014 04:24



Filename C:\data\January\A091114004.DAT

Sample name : 1,000 KHP Analysed : 09/11/2014 04:24



# Eager 300 Report

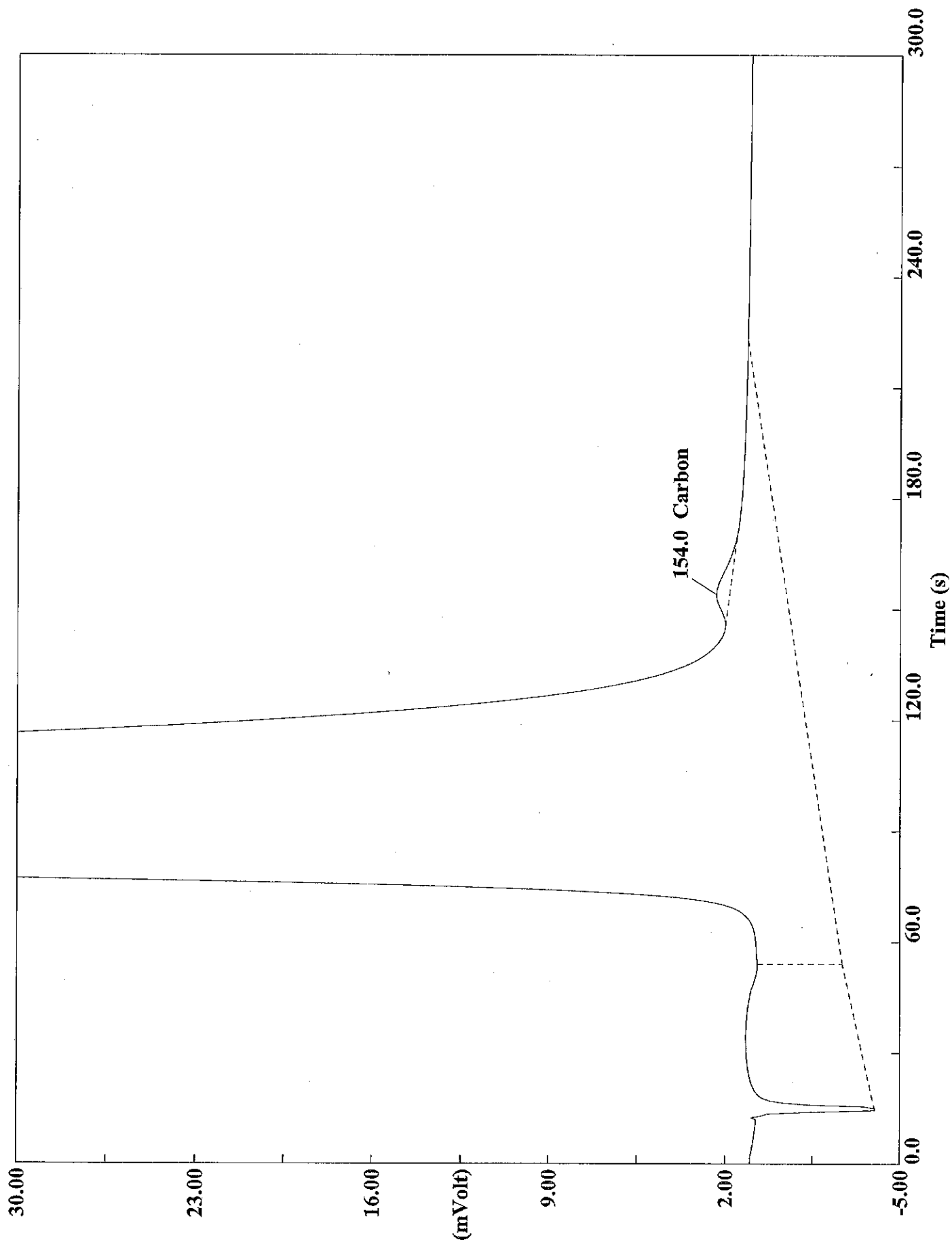
Page: 1 Sample: 1,000 KHP (A091114004)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114004  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:24 Printed : 9/11/2014 05:09  
Sample ID : 1,000 KHP (# 4)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 200

Calib. method : using 'Least Squares to Linear fit'

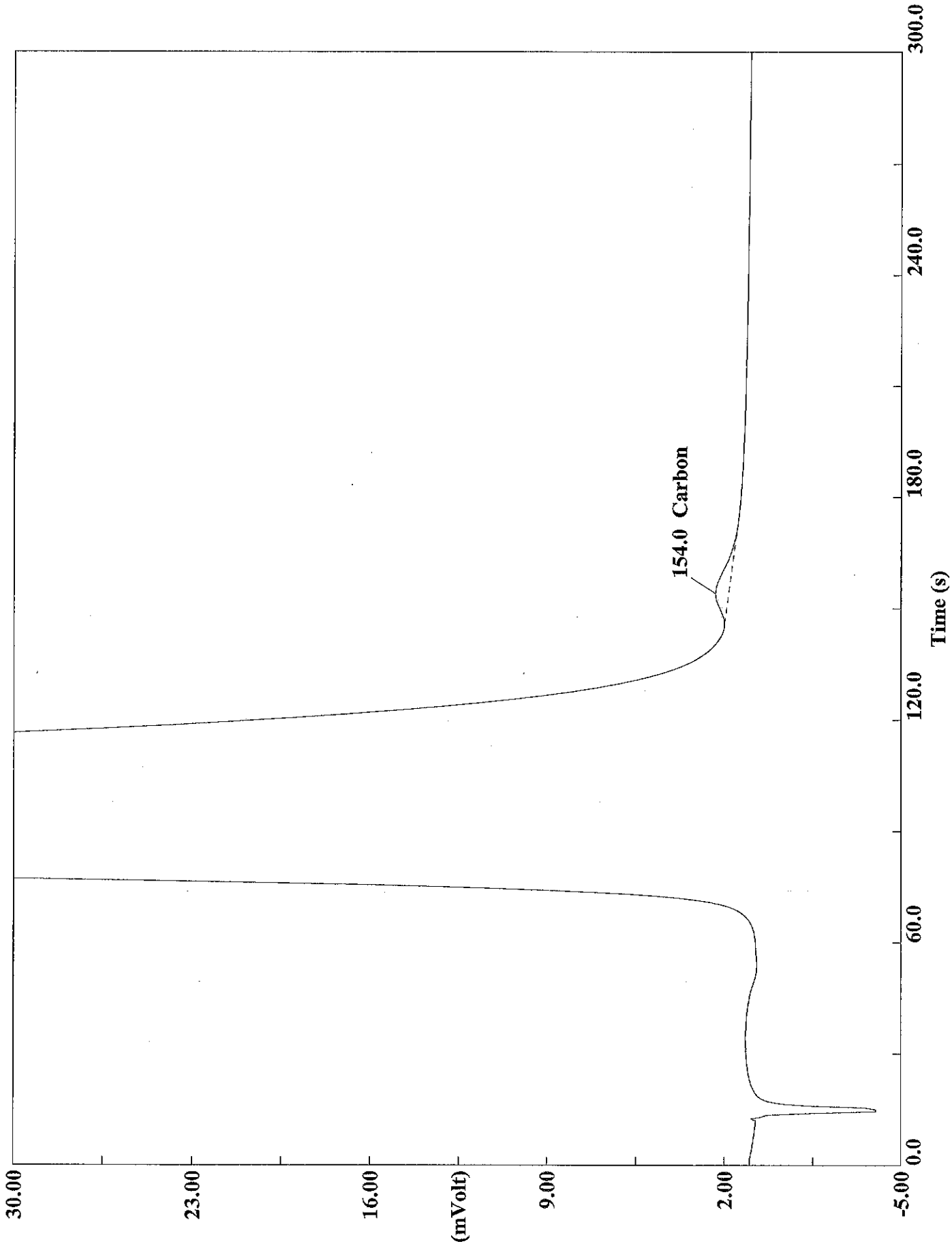
Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.0100	150	7379 mi		1.000000	



Filename C:\data\January\A091114005.DAT

Sample name :2,500 KHP Analysed :09/11/2014 04:30



Filename C:\data\January\A091114005.DAT  
Sample name :2,500 KHP Analysed :09/11/2014 04:30

# Eager 300 Report

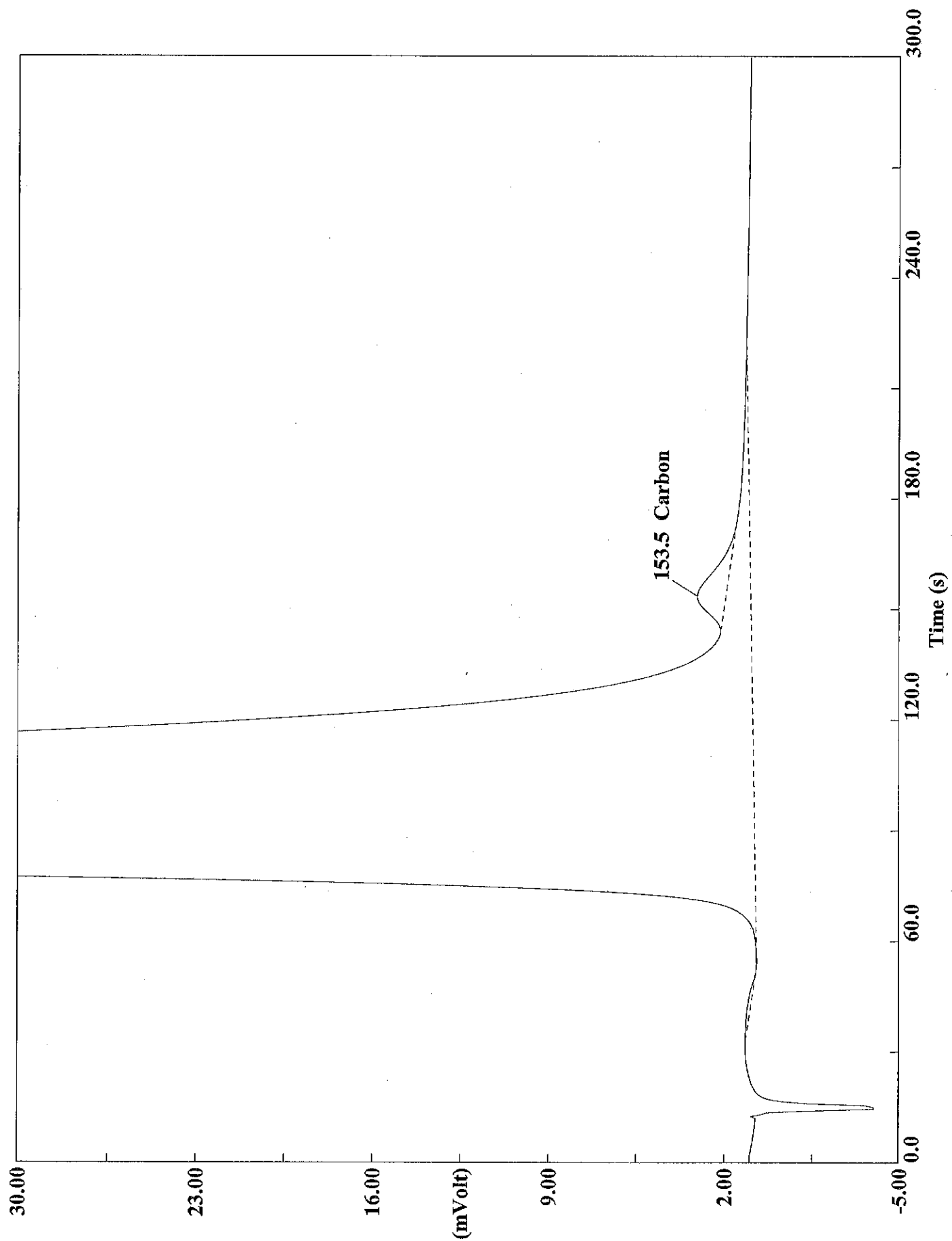
Page: 1 Sample: 2,500 KHP (A091114005)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114005  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:30 Printed : 9/11/2014 05:09  
Sample ID : 2,500 KHP (# 5)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 50

Calib. method : using 'Least Squares to Linear fit'

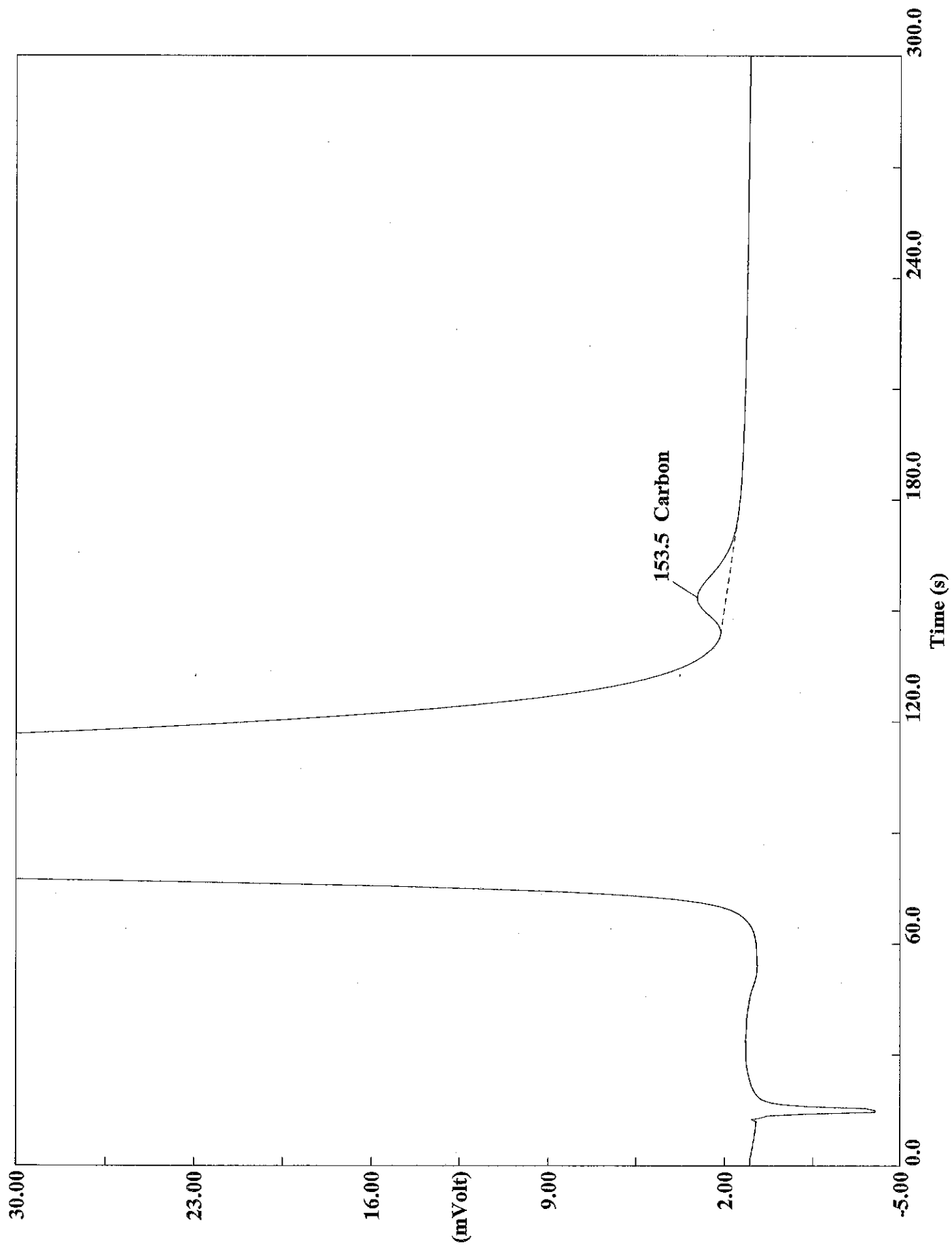
Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1000	154	62139	mi	1.000000	



Filename C:\data\January\A091114006.DAT

Sample name :5,000 KHP Analysed :09/11/2014 04:35



Filename C:\data\January\A091114006.DAT

Sample name :5,000 KHP Analysed :09/11/2014 04:35

# Eager 300 Report

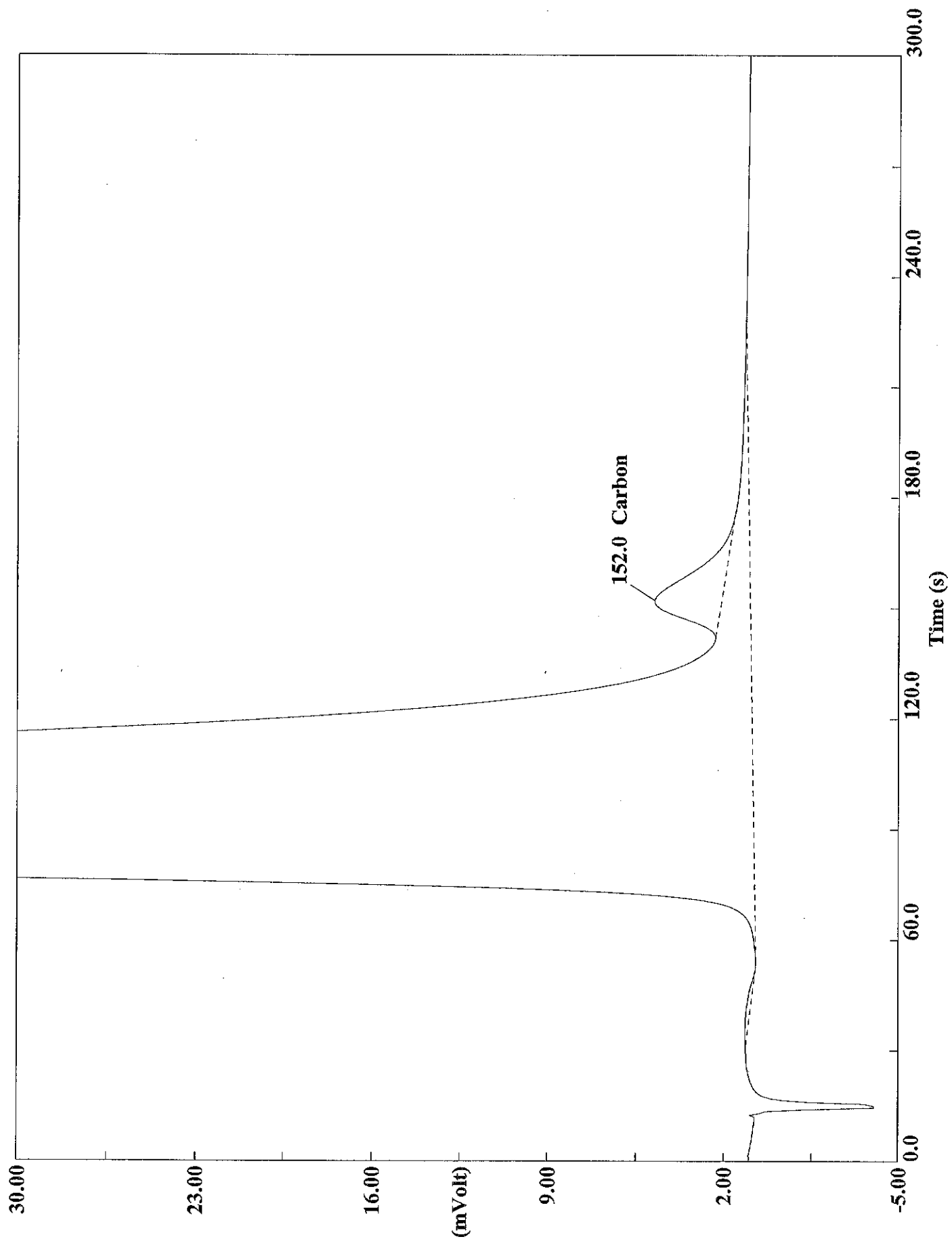
Page: 1 Sample: 5,000 KHP (A091114006)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114006  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:35 Printed : 9/11/2014 05:09  
Sample ID : 5,000 KHP (# 6)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 100

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

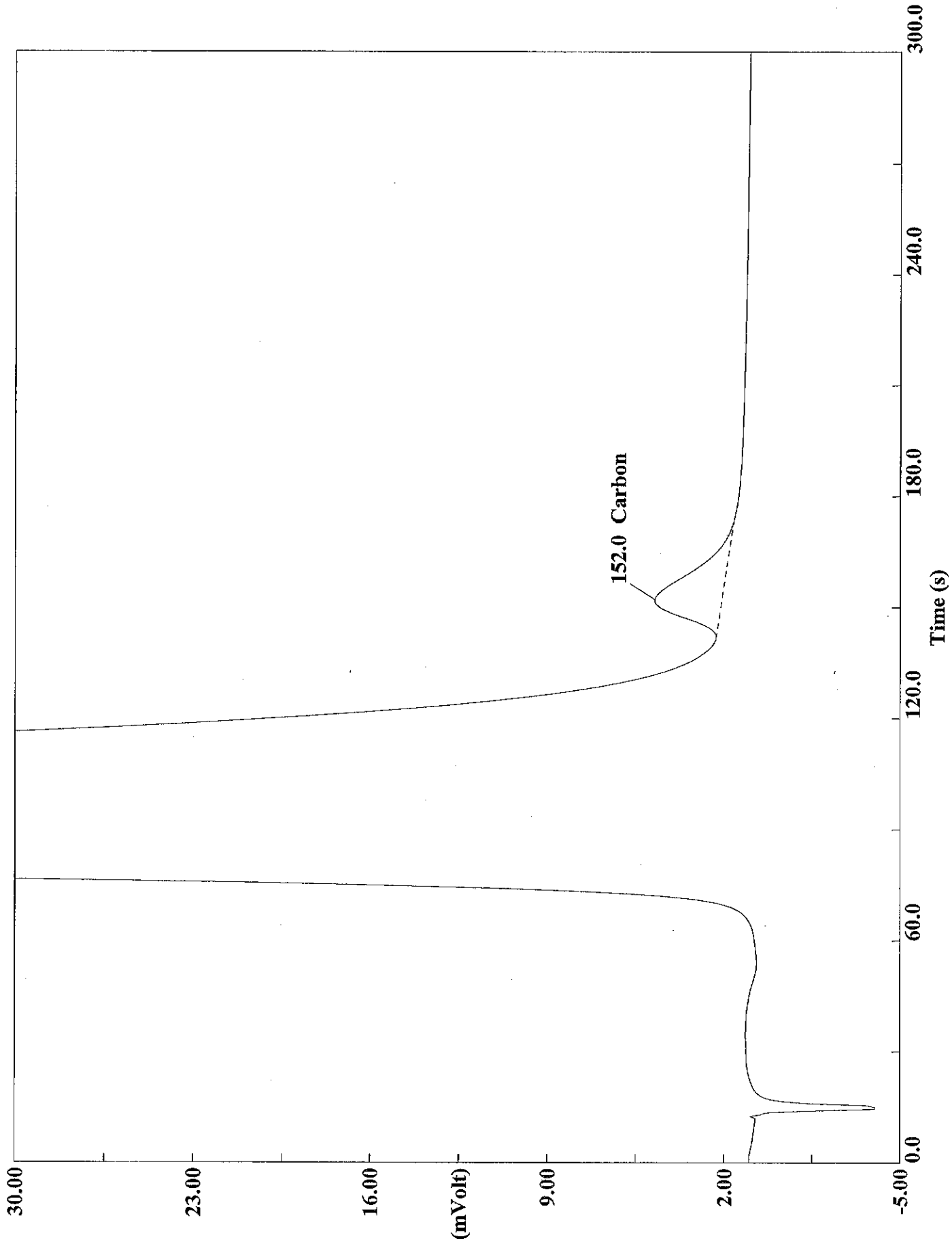
Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1000	154	144232	mi	1.000000	



Filename C:\data\January\A091114007.DAT

Sample name :10,000 KHP Analysed :09/11/2014 04:40





Filename C:\data\January\A091114007.DAT

Sample name :10,000 KHP Analysed :09/11/2014 04:40

# Eager 300 Report

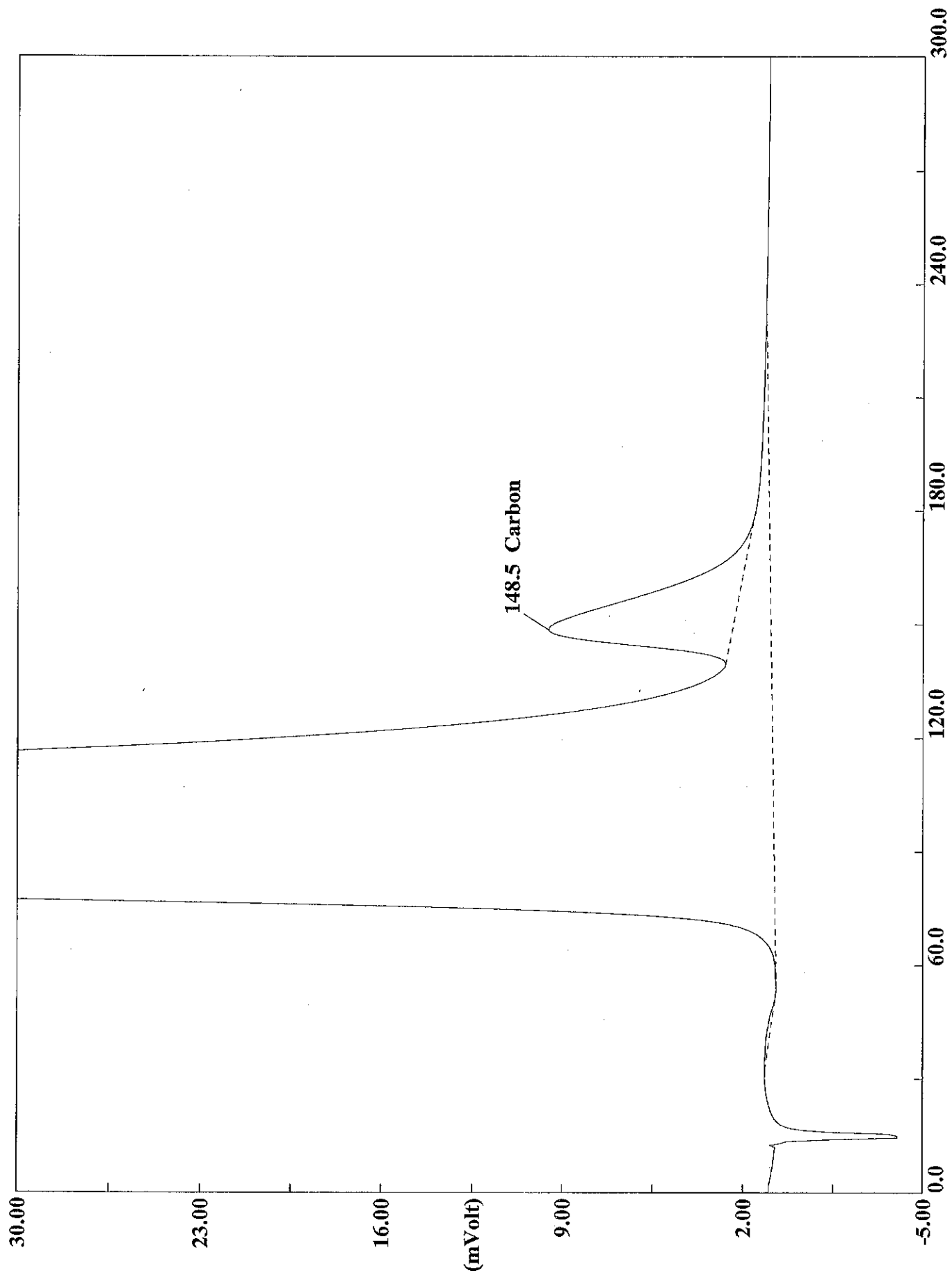
Page: 1 Sample: 10,000 KHP (A091114007)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114007  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:40 Printed : 9/11/2014 05:10  
Sample ID : 10,000 KHP (# 7)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 200

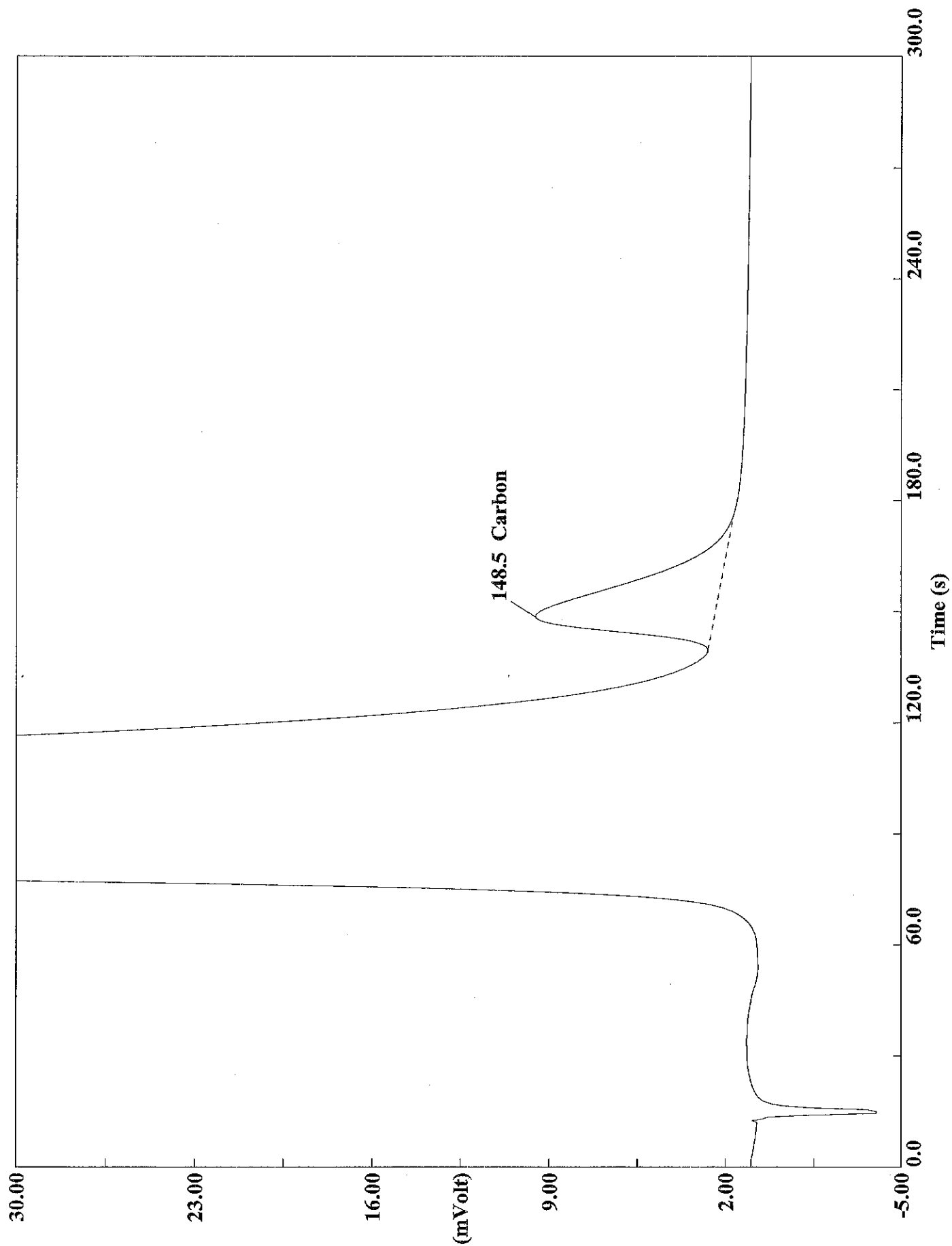
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1000	152	353636	mi	1.000000	



Filename C:\data\January\A091114008.DAT  
Sample name :25,000 KHP Analysed :09/11/2014 04:45



# Eager 300 Report

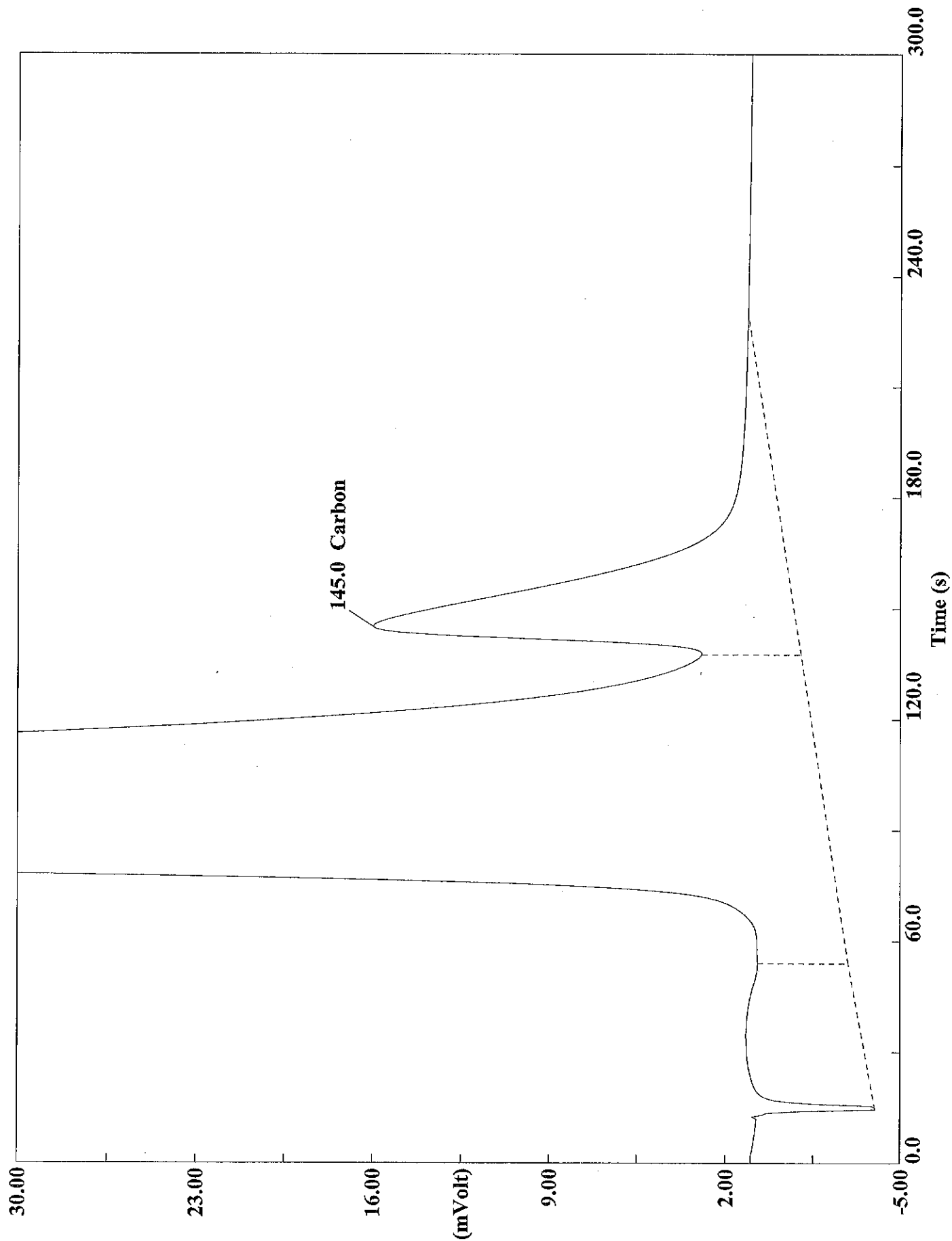
Page: 1 Sample: 25,000 KHP (A091114008)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114008  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:45 Printed : 9/11/2014 05:10  
Sample ID : 25,000 KHP (# 8)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 50

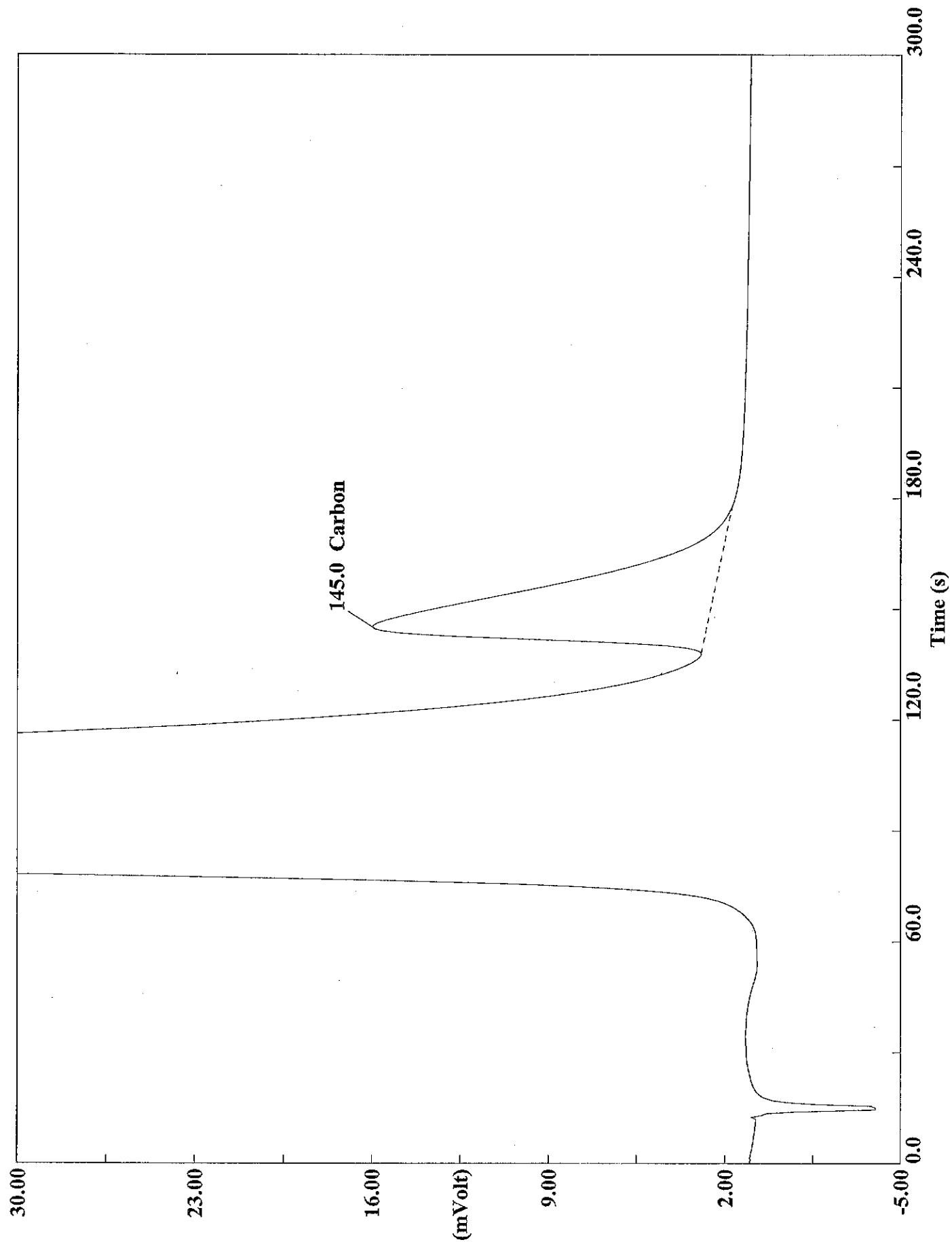
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0000	149	1022321	mi	1.000000	



Filename C:\data\January\A091114009.DAT  
Sample name :50,000 KHP Analysed :09/11/2014 04:51



Filename C:\data\January\A091114009.DAT  
Sample name :50,000 KHP Analysed :09/11/2014 04:51

# Eager 300 Report

Page: 1 Sample: 50,000 KHP (A091114009)

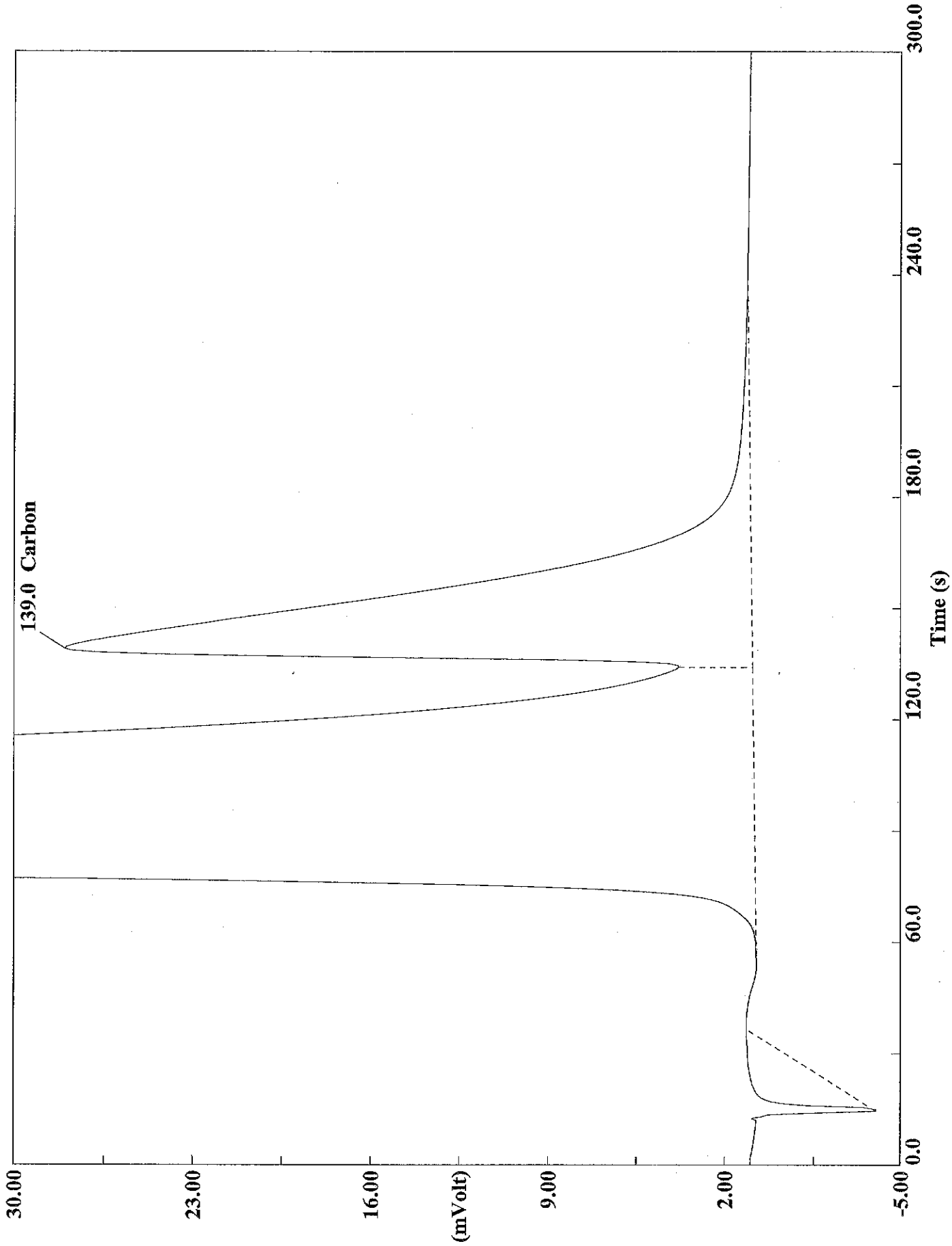
Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114009  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:51 Printed : 9/11/2014 05:10  
Sample ID : 50,000 KHP (# 9)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 100

Calib. method : using 'Least Squares to Linear fit'

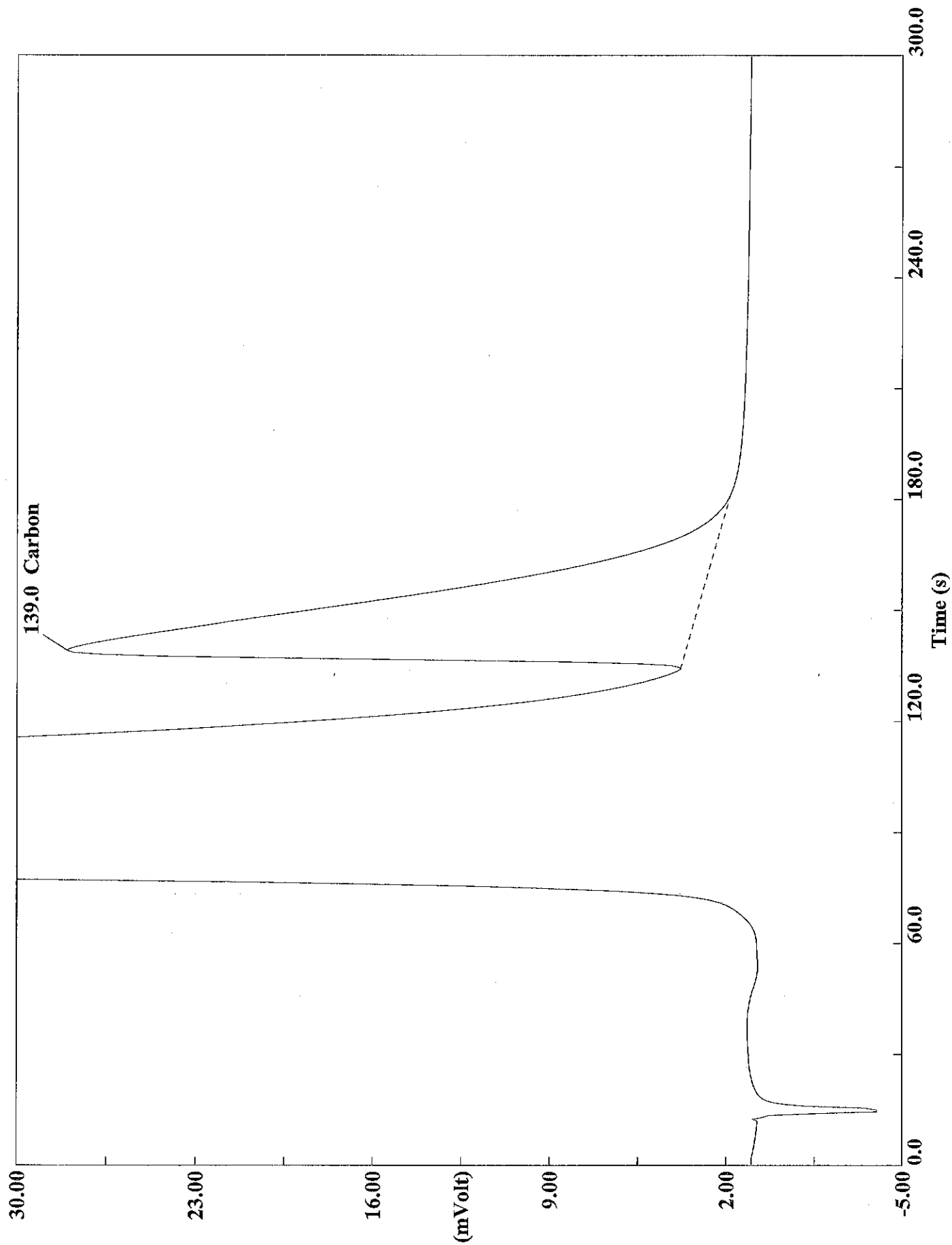
Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0000	145	2036786 mi		1.000000	





Filename C:\data\January\A091114010.DAT  
Sample name : 100,000 KHP    Analysed : 09/11/2014 04:56



Filename C:\data\January\A091114010.DAT

Sample name : 100,000 KHP Analysed : 09/11/2014 04:56

# Eager 300 Report

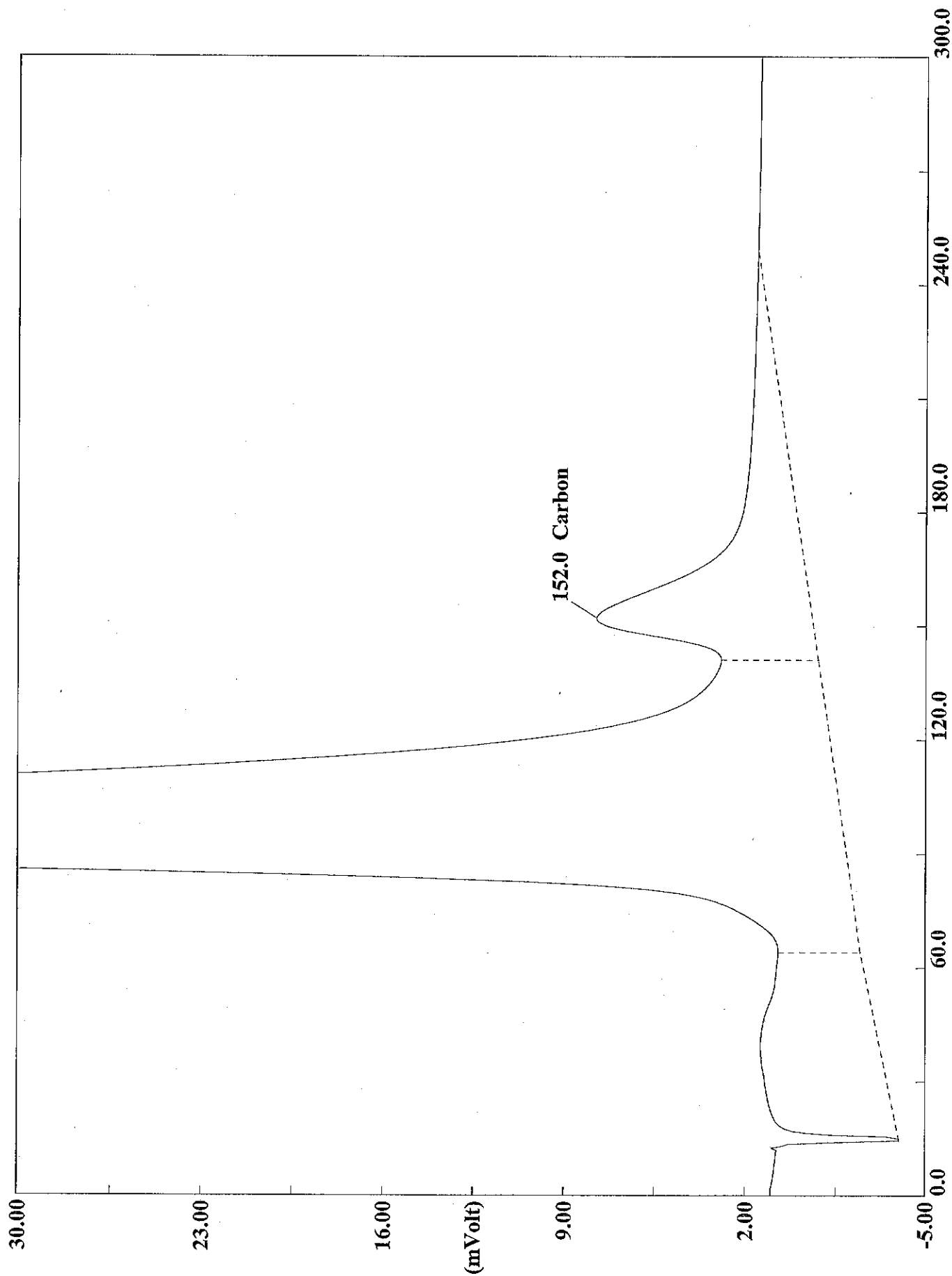
Page: 1 Sample: 100,000 KHP (A091114010)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114010  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 04:56 Printed : 9/11/2014 05:10  
Sample ID : 100,000 KHP (# 10)  
Instrument N. : Instrument #1  
Analysis Type : Calibration (Area) Sample weight : 200

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

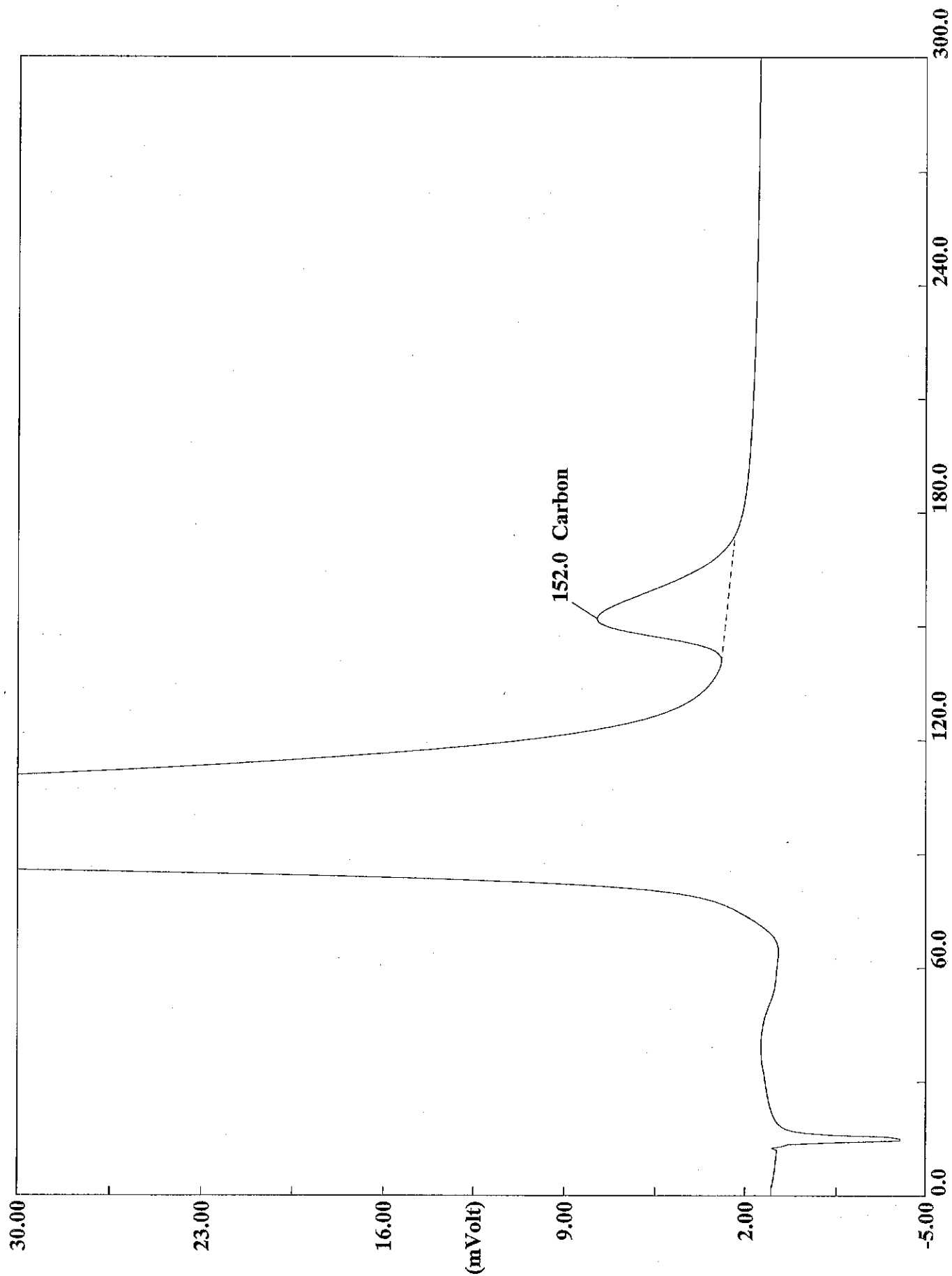
Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0000	139	4275491	mi	1.000000	



Filename C:\data\January\A091114011.DAT

Sample name :ICV 34,960 KHP Analysed :09/11/2014 05:10

Manual Integration on 09/12/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A091114011.DAT

Sample name :ICV 34,960 KHP Analysed :09/11/2014 05:10

# Eager 300 Report

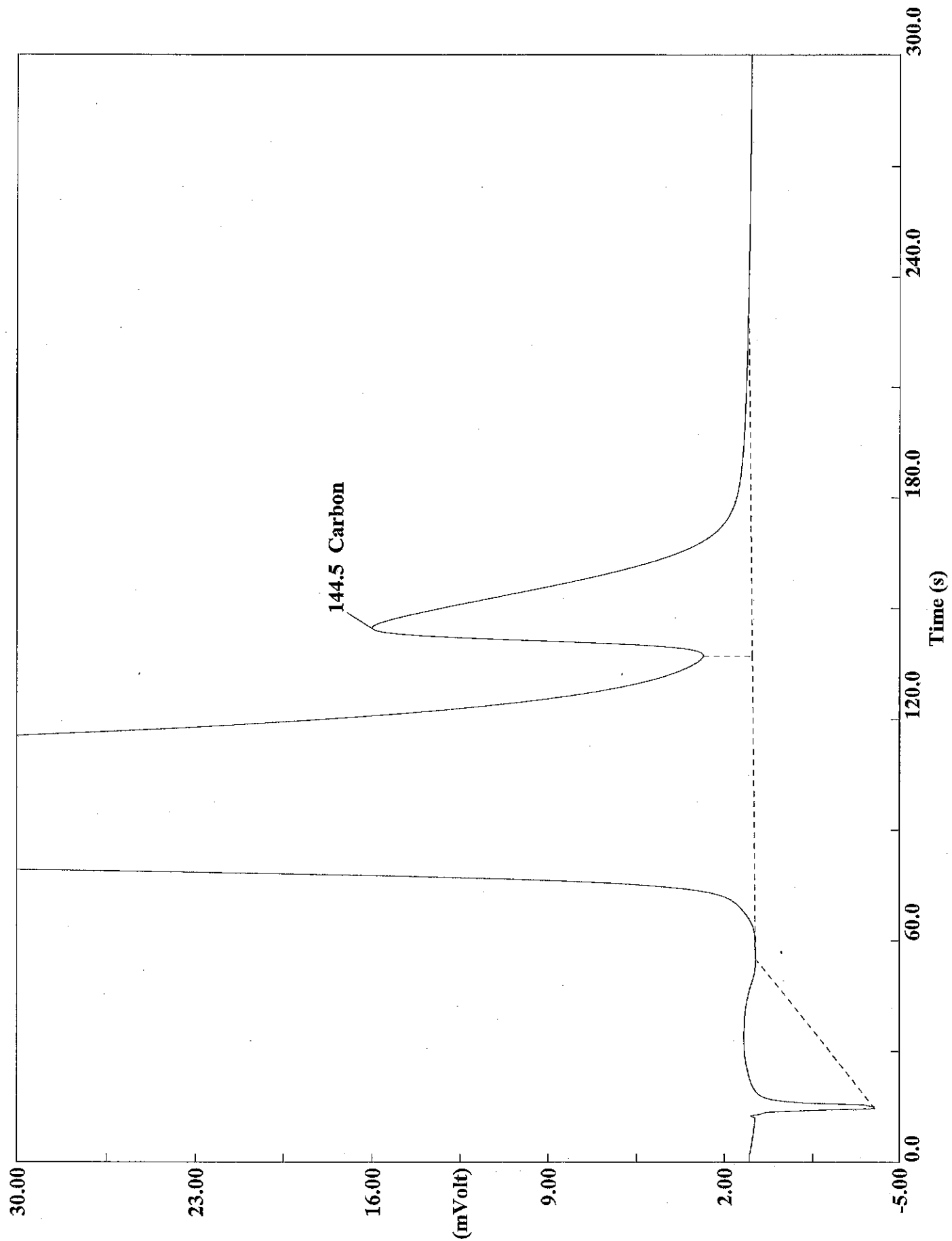
Page: 1 Sample: ICV 34,960 KHP (A091114011)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114011  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 05:10 Printed : 9/12/2014 11:52  
Sample ID : ICV 34,960 KHP (# 11)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 10.8

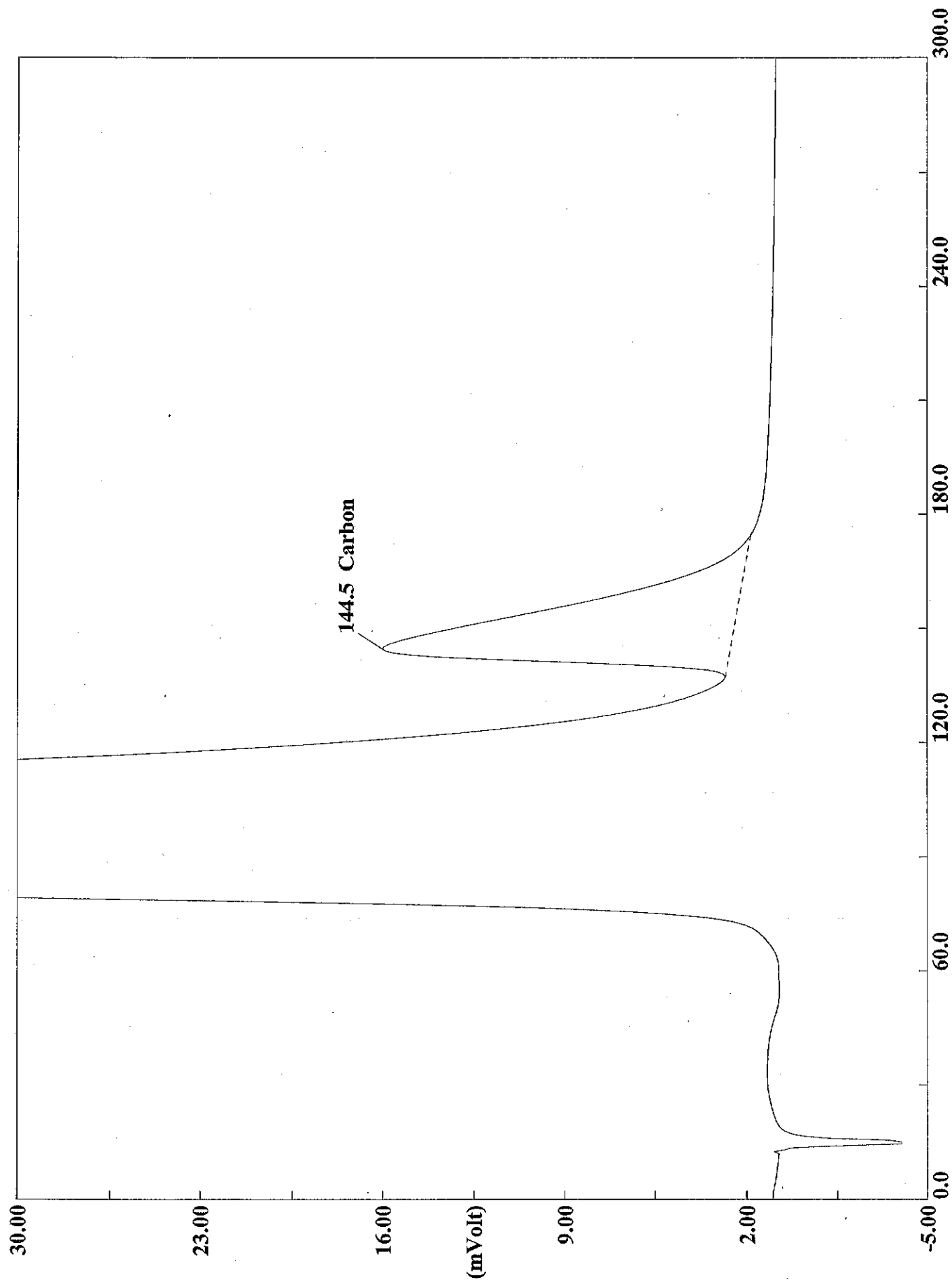
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	3.3787	152	723717	mi	1.000000	



Filename C:\data\January\A091114012.DAT  
Sample name :CCV 10,000 Analysed :09/11/2014 05:15



Filename C:\data\January\A091114012.DAT

Sample name :CCV 10,000 Analysed :09/11/2014 05:15



# Eager 300 Report

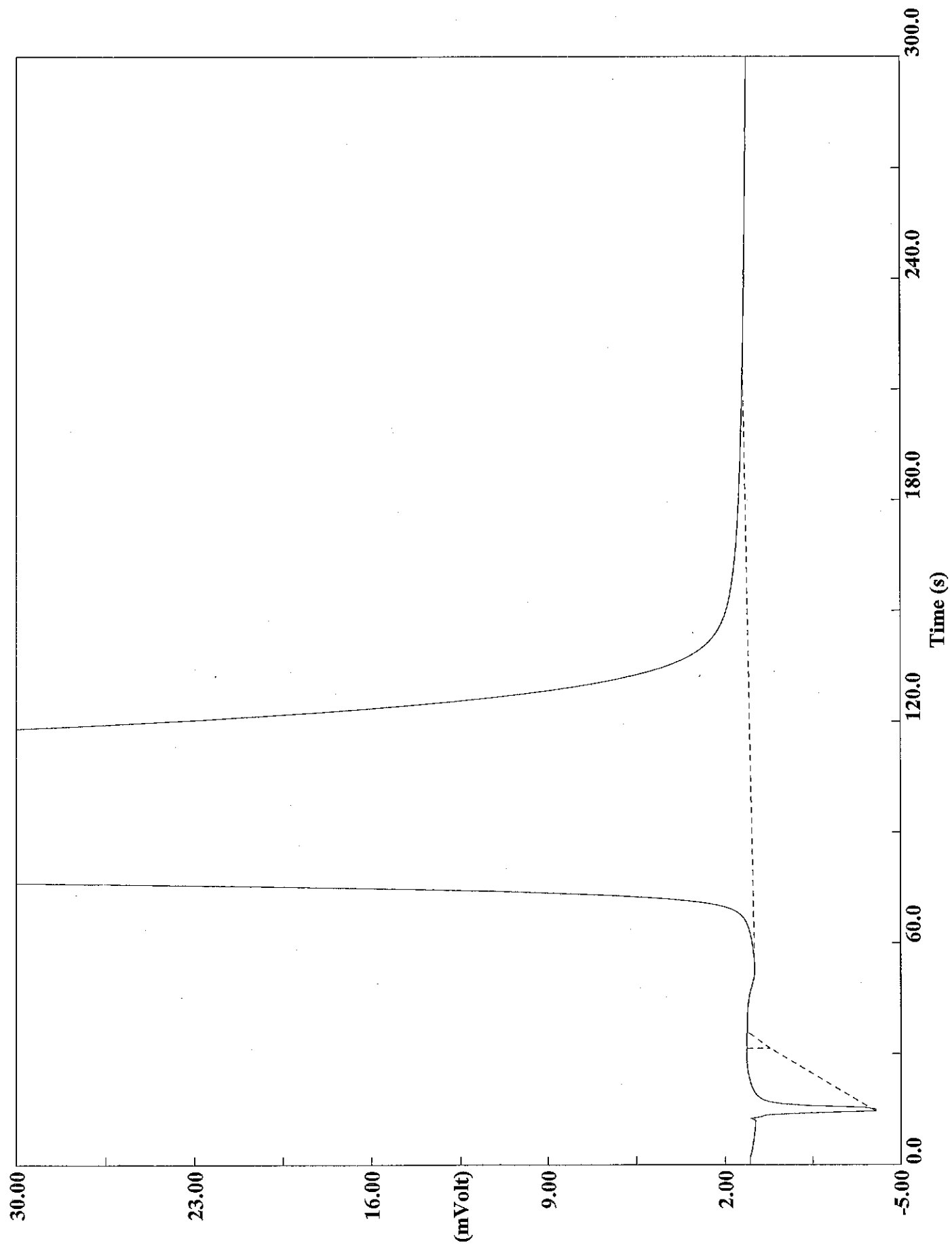
Page: 1 Sample: CCV 10,000 (A091114012)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114012  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 05:15 Printed : 9/12/2014 11:52  
Sample ID : CCV 10,000 (# 12)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

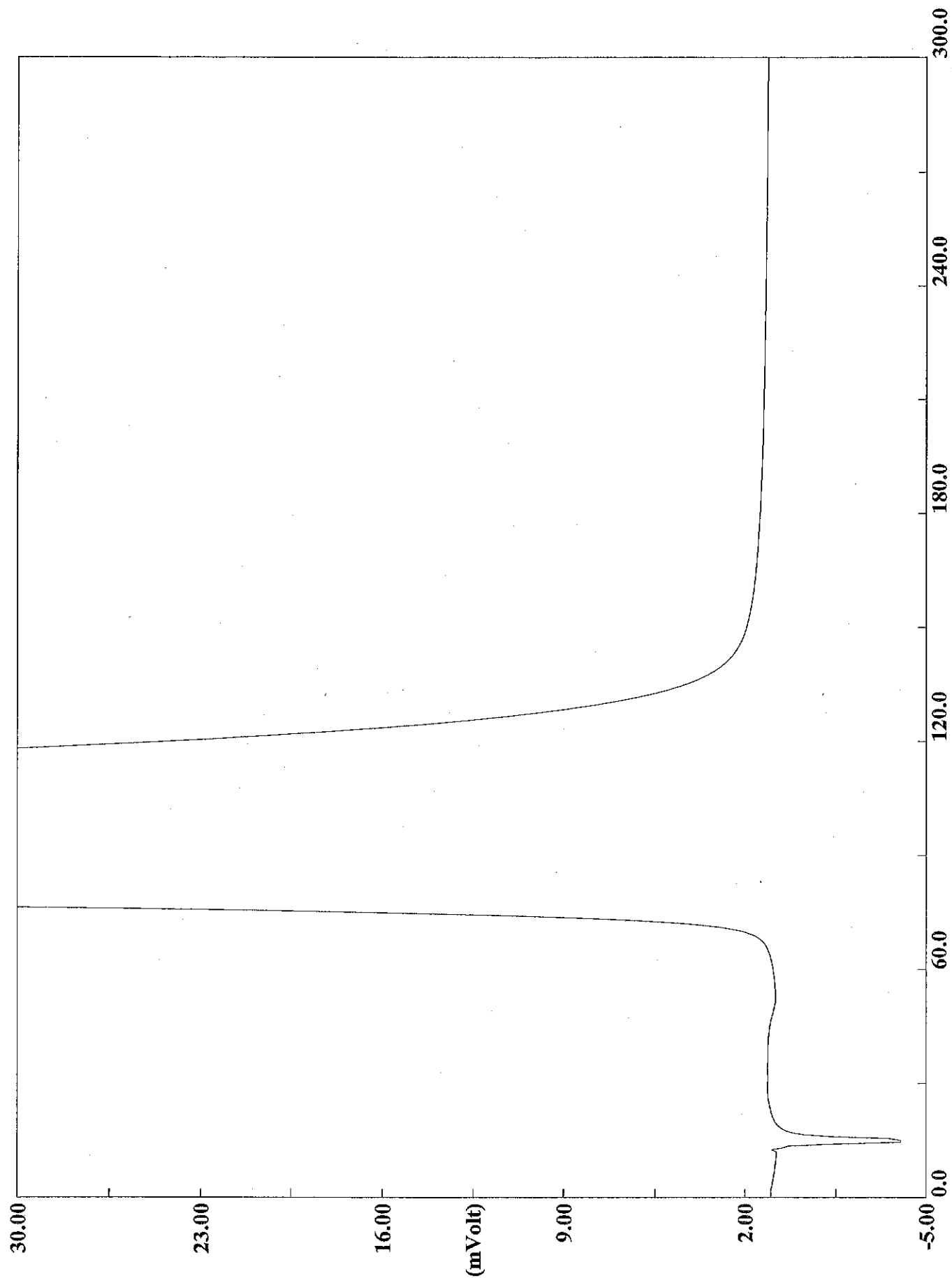
Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9805	145	2050607	mi	1.000000	



Filename C:\data\January\A091114013.DAT

Sample name :CCB Analysed :09/11/2014 05:22

Manual Integration on 09/12/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A091114013.DAT  
Sample name :CCB Analysed :09/11/2014 05:22

# Eager 300 Report

Page: 1 Sample: CCB (A091114013)

Method Name : Lloyd Kahn  
Method File : C:\data\January\091114.mth  
Chromatogram : A091114013  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 09/11/2014 05:22 Printed : 9/12/2014 11:52  
Sample ID : CCB (# 13)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

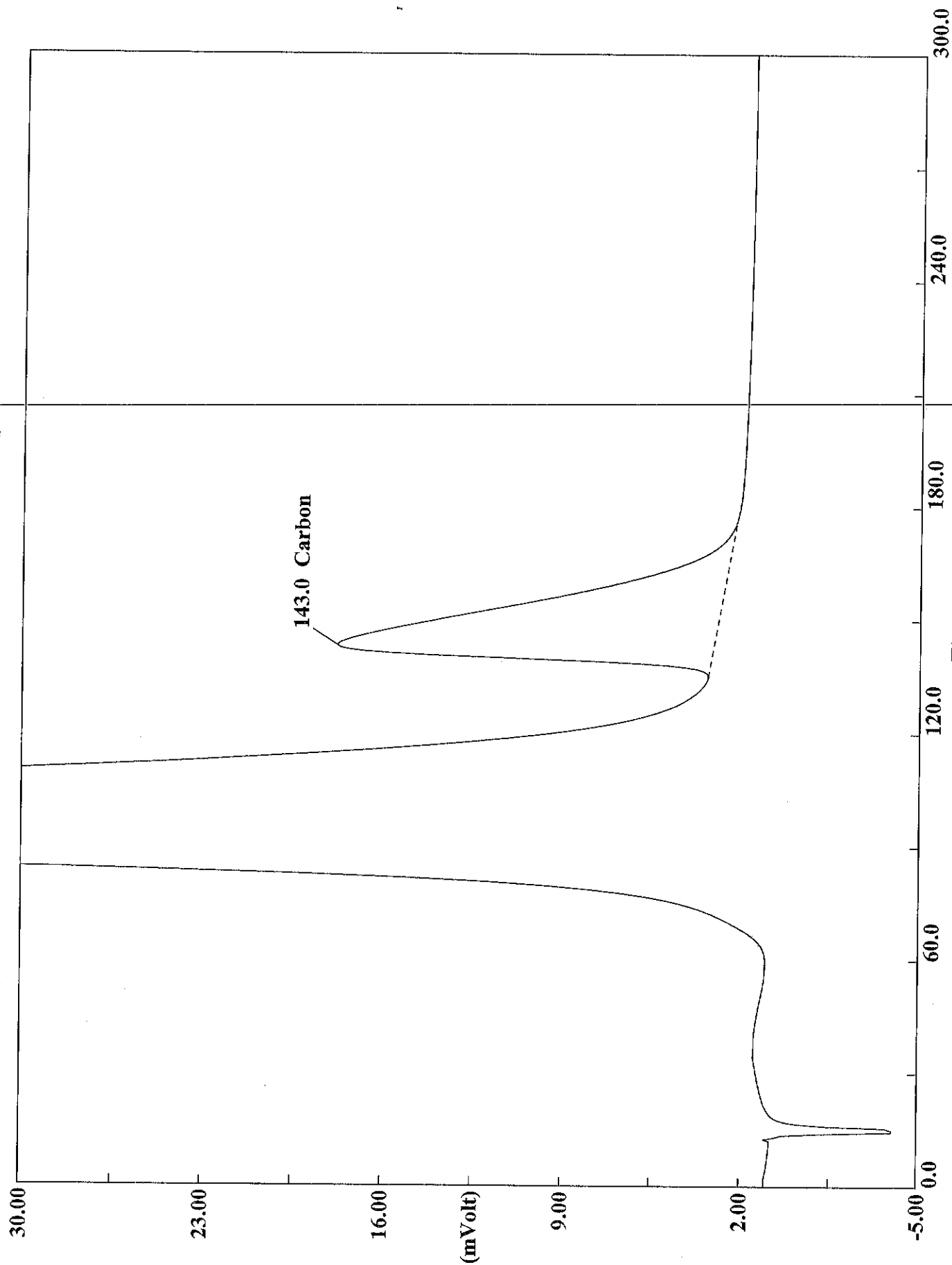
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314052.DAT  
Sample name :ccv Analysed :10/23/2014 10:21

# Eager 300 Report

Page: 1 Sample: ccv (A102314052)

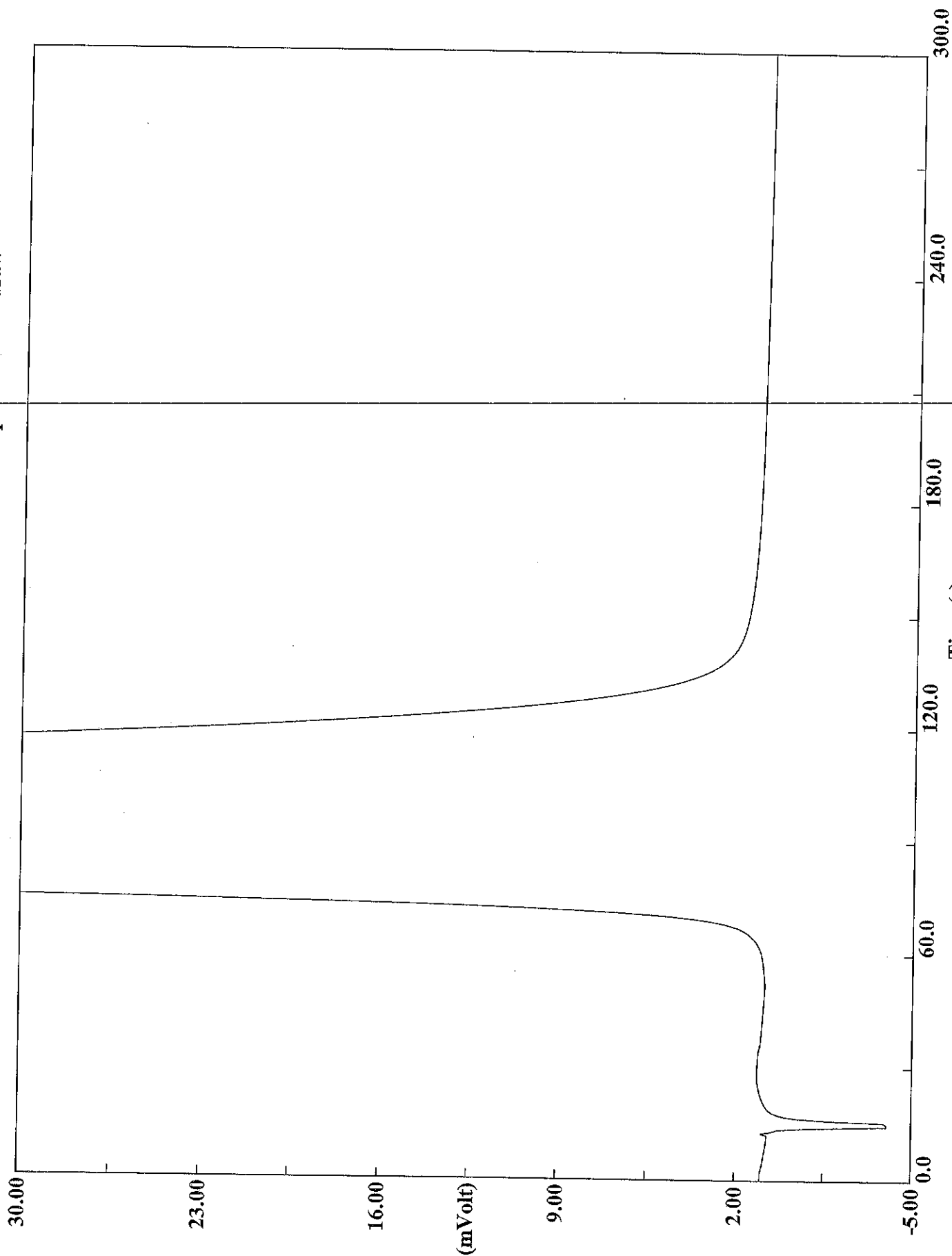
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314052  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:21 Printed : 10/24/2014 03:49  
Sample ID : ccv (# 14)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.1118	143	2333602	mi	1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314053.DAT  
Sample name :ccb Analysed :10/23/2014 10:28

# Eager 300 Report

Page: 1 Sample: ccb (A102314053)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314053  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:28 Printed : 10/24/2014 03:49  
Sample ID : ccb (# 15)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

Calib. method : using 'Least Squares to Linear fit'

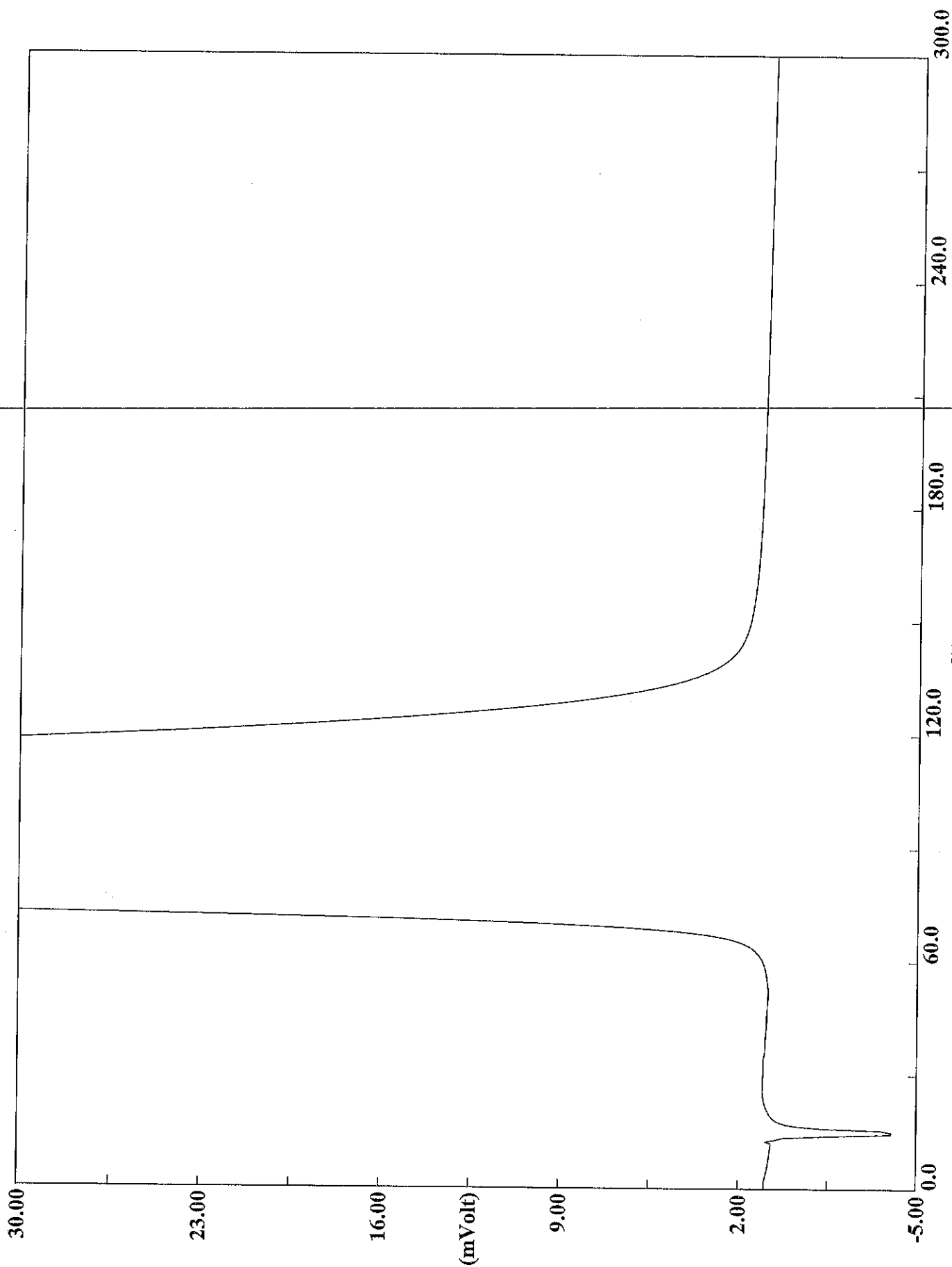
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314054.DAT

Sample name :mb OS-2CB0290 Analysed :10/23/2014 10:33

# Eager 300 Report

Page: 1 Sample: mb OS-2CB0290 (A102314054)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314054  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:33 Printed : 10/24/2014 03:49  
Sample ID : mb OS-2CB0290 (# 16)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.6

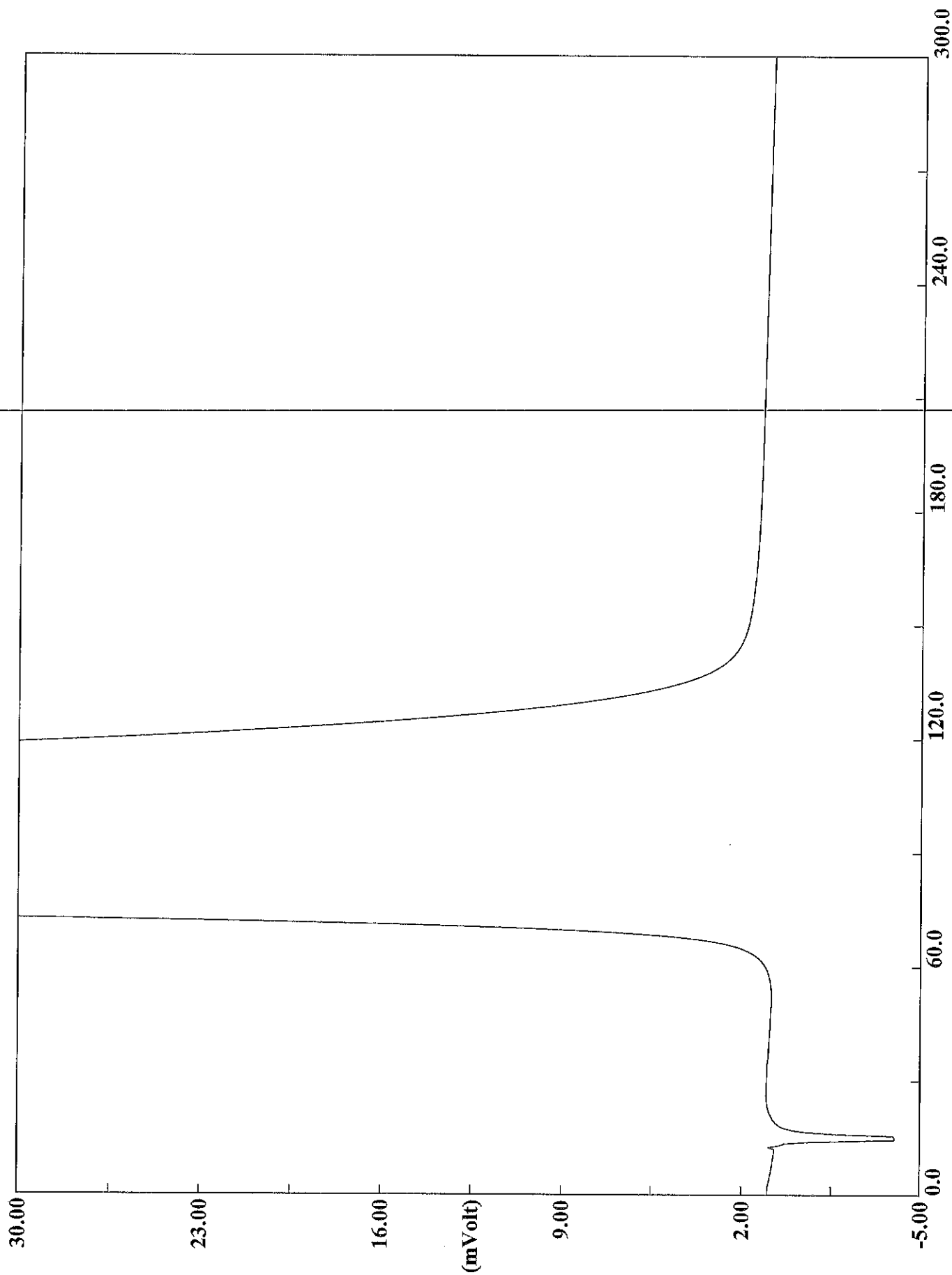
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314055.DAT

Sample name :mb OS-2CB0290 Analysed :10/23/2014 10:38

# Eager 300 Report

Page: 1 Sample: mb OS-2CB0290 (A102314055)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314055  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:38 Printed : 10/24/2014 03:49  
Sample ID : mb OS-2CB0290 (# 17)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.9

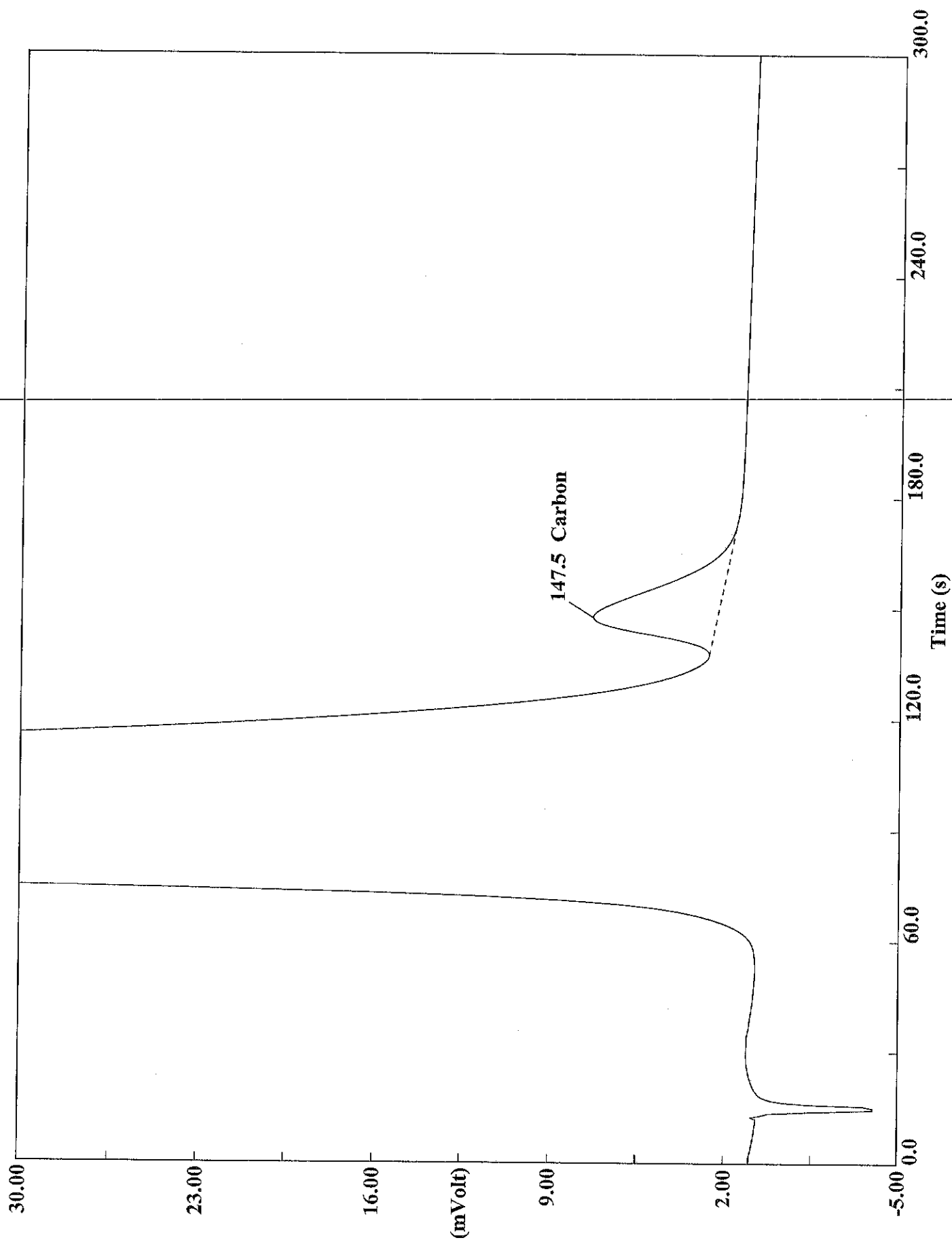
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314056.DAT  
Sample name :lcs Analysed :10/23/2014 10:44

# Eager 300 Report

Page: 1 Sample: lcs (A102314056)

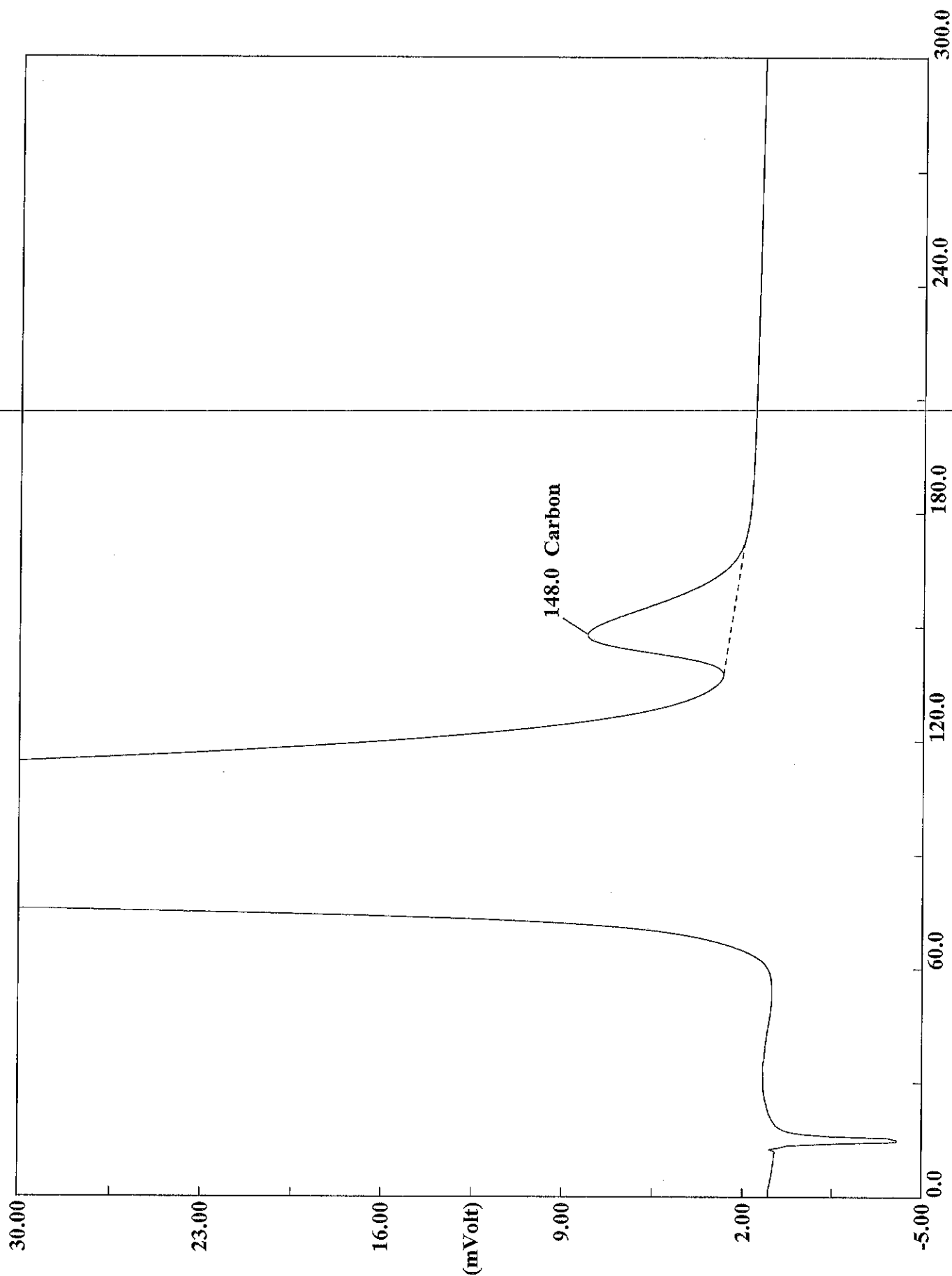
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314056  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:44 Printed : 10/24/2014 03:49  
Sample ID : lcs (# 18)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 10.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	3.3824	148	695411	mi	1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314057.DAT  
Sample name :lcs Analysed :10/23/2014 10:50

# Eager 300 Report

Page: 1 Sample: lcs (A102314057)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314057  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:50 Printed : 10/24/2014 03:49  
Sample ID : lcs (# 19)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11.9

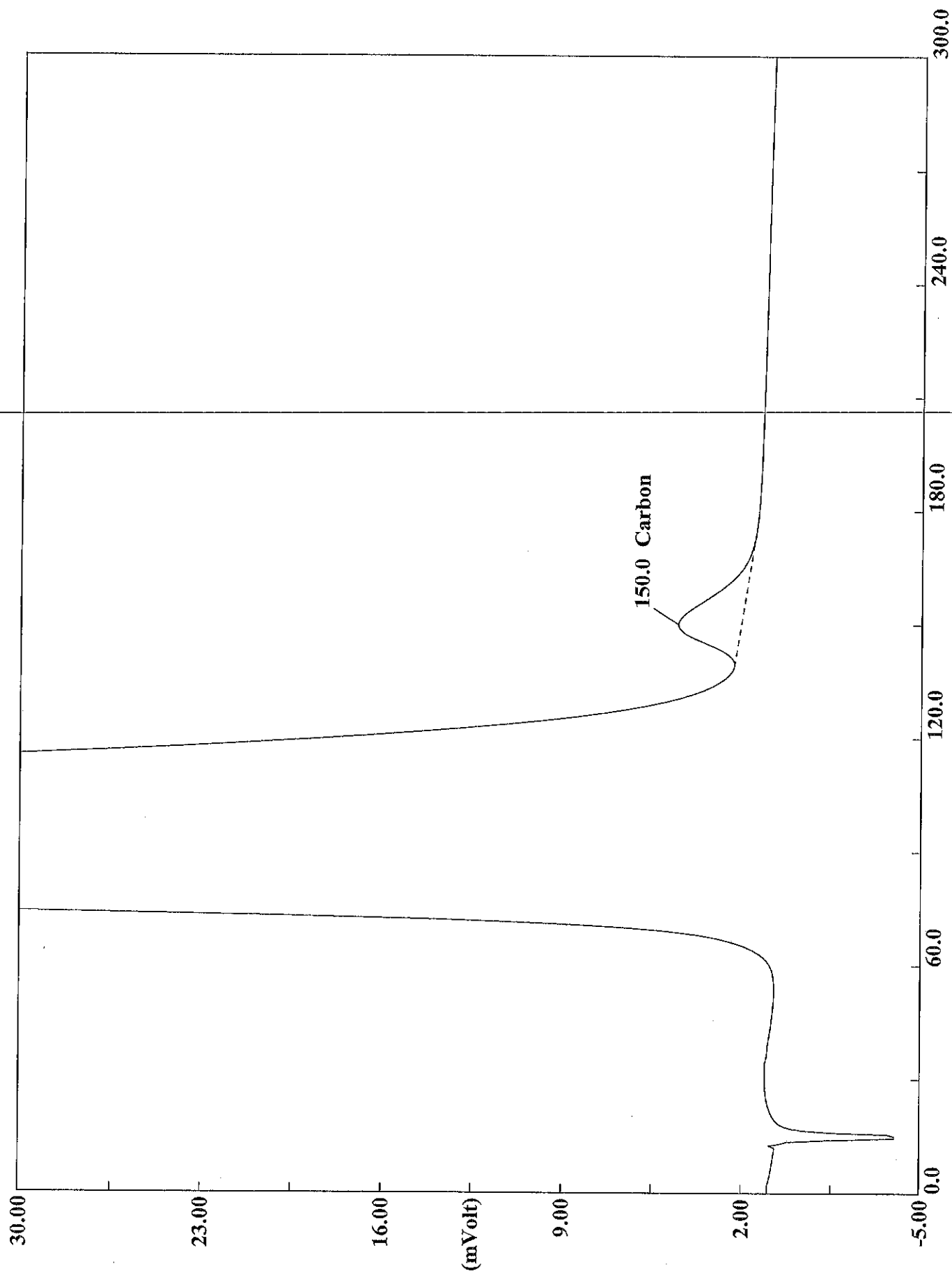
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	3.3480	148	795946 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314058.DAT

Sample name :180-37686-c-1 Analysed :10/23/2014 10:56

# Eager 300 Report

Page: 1 Sample: 180-37686-c-1 (A102314058)

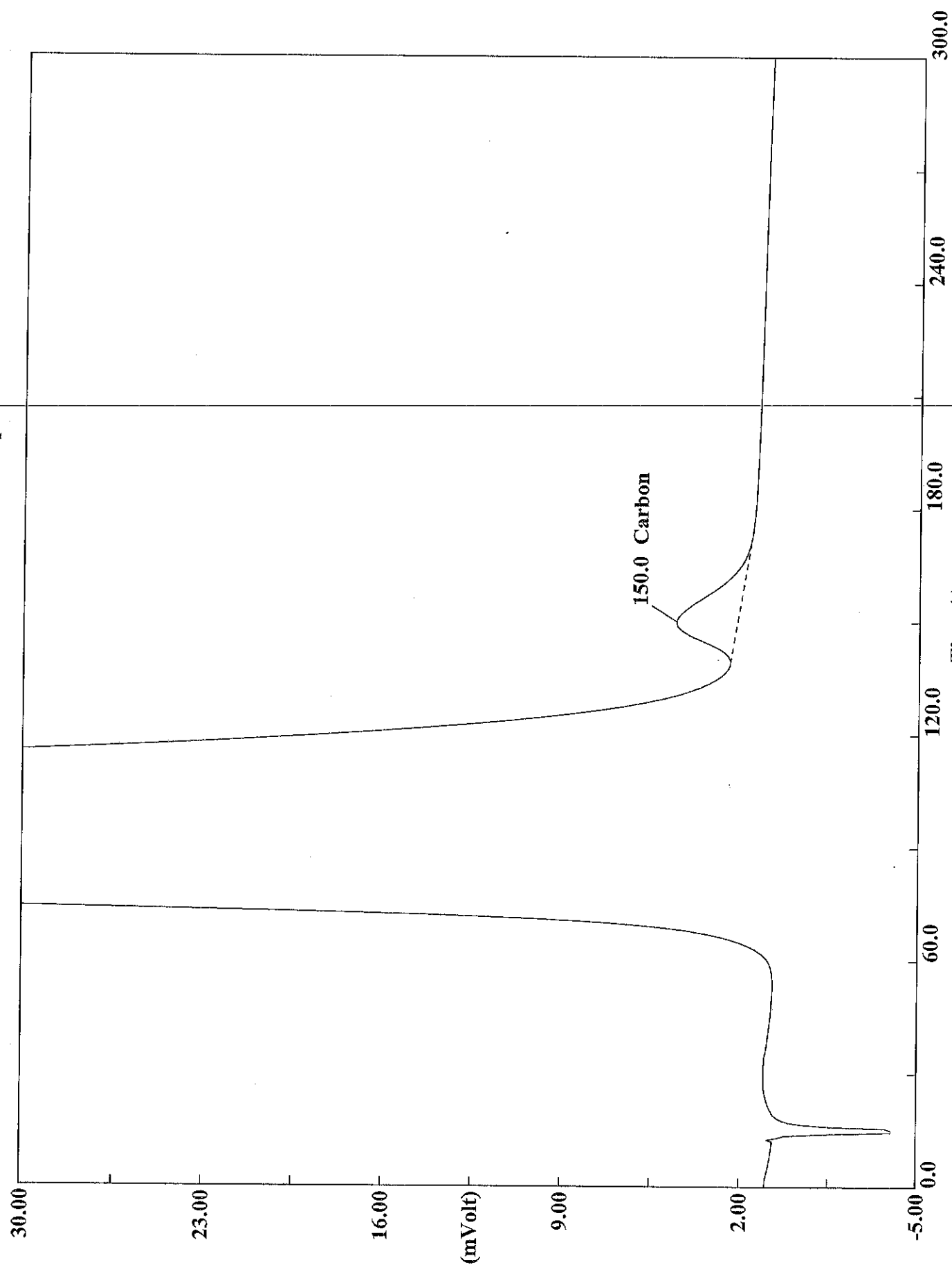
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314058  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:56 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-1 (# 20)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 16.9

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0883	150	333615 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314059.DAT

Sample name :180-37686-c-1 Analysed :10/23/2014 11:01

# Eager 300 Report

Page: 1 Sample: 180-37686-c-1 (A102314059)

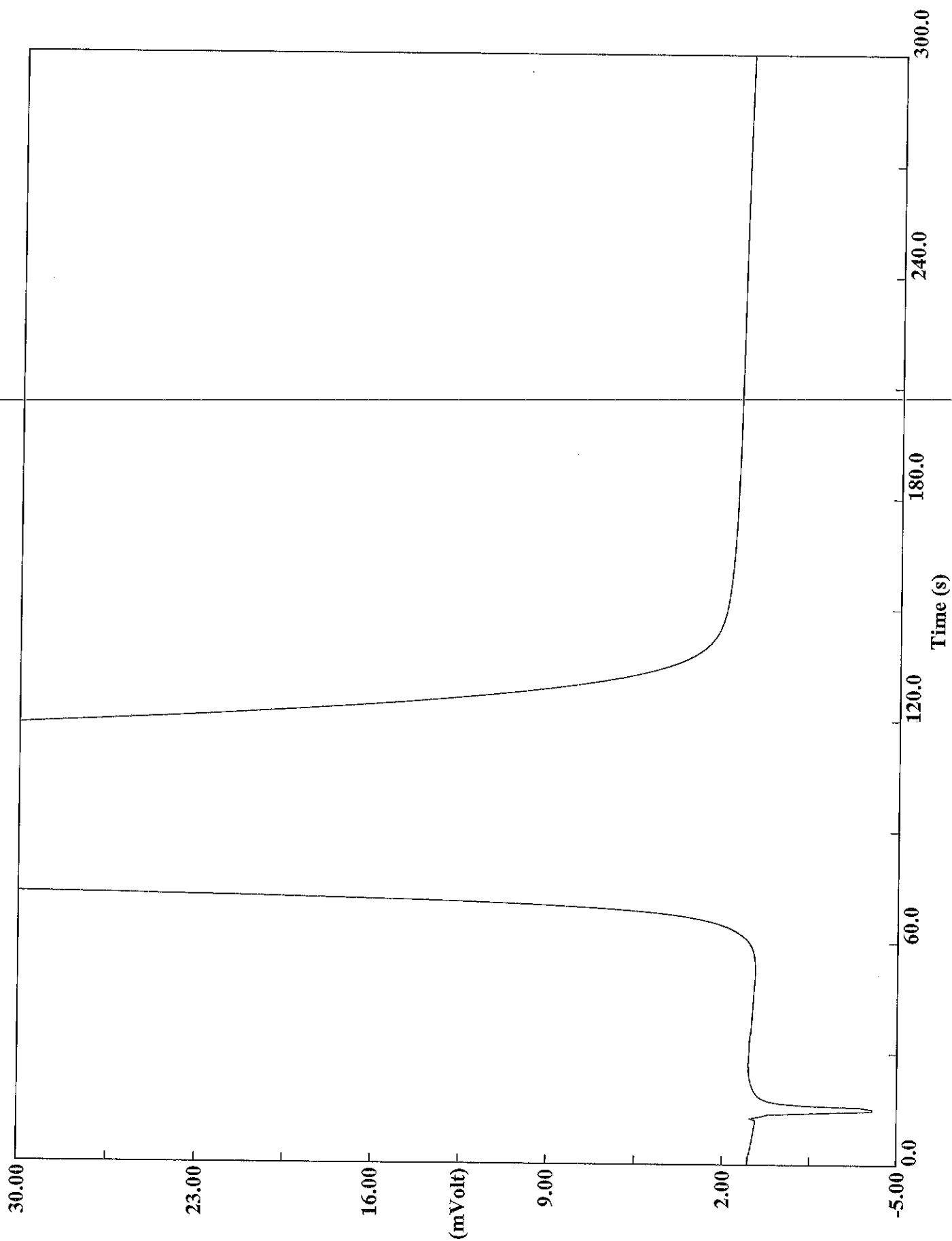
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314059  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:01 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-1 (# 21)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 16.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0687	150	324165 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314060.DAT  
Sample name :rinse Analysed :10/23/2014 11:06

# Eager 300 Report

Page: 1 Sample: rinse (A102314060)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314060  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:06 Printed : 10/24/2014 03:49  
Sample ID : rinse (# 22)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

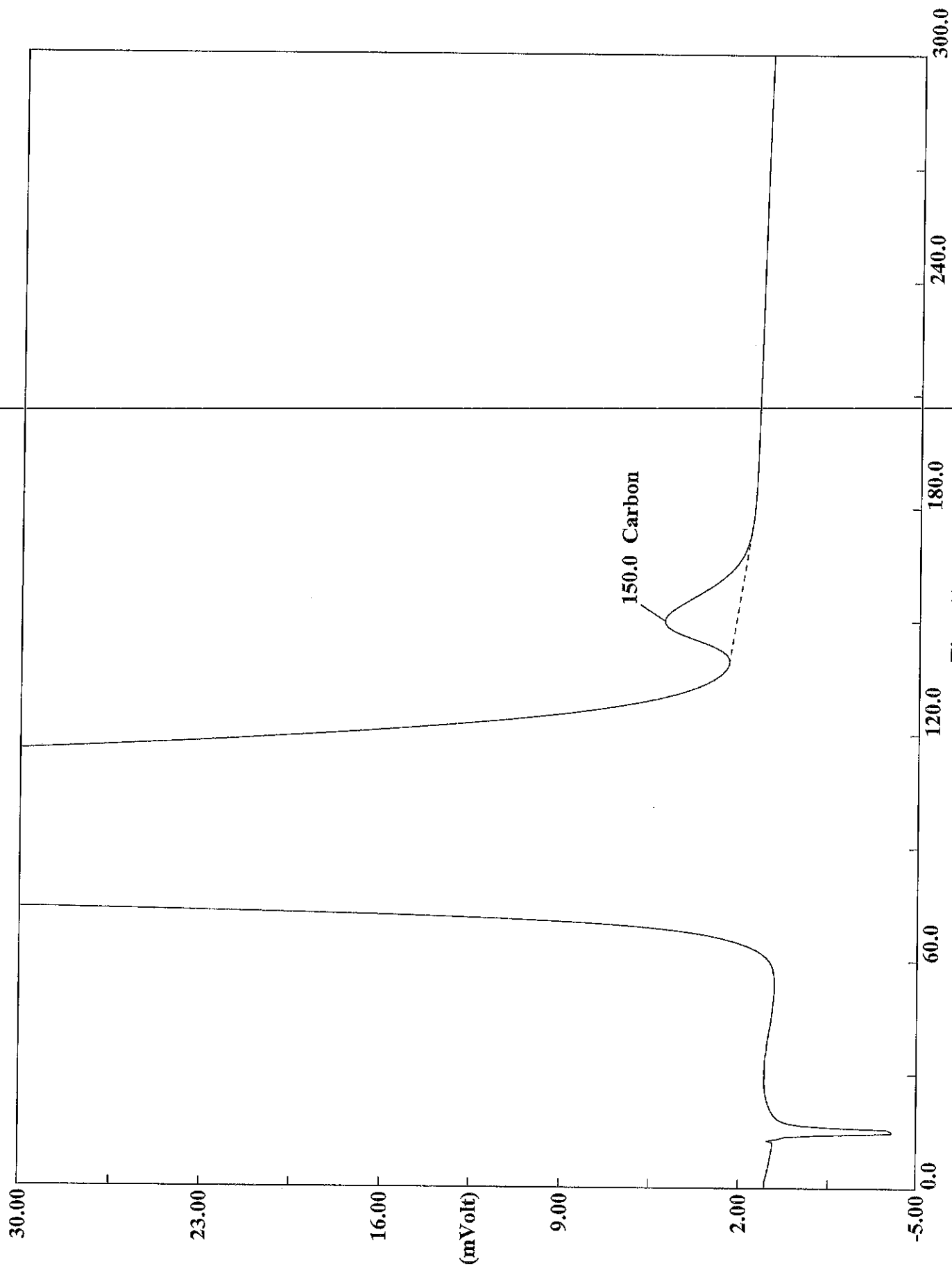
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314061.DAT

Sample name :180-37686-c-2 Analysed :10/23/2014 11:11

# Eager 300 Report

Page: 1 Sample: 180-37686-c-2 (A102314061)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314061  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:11 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-2 (# 23)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 13.6

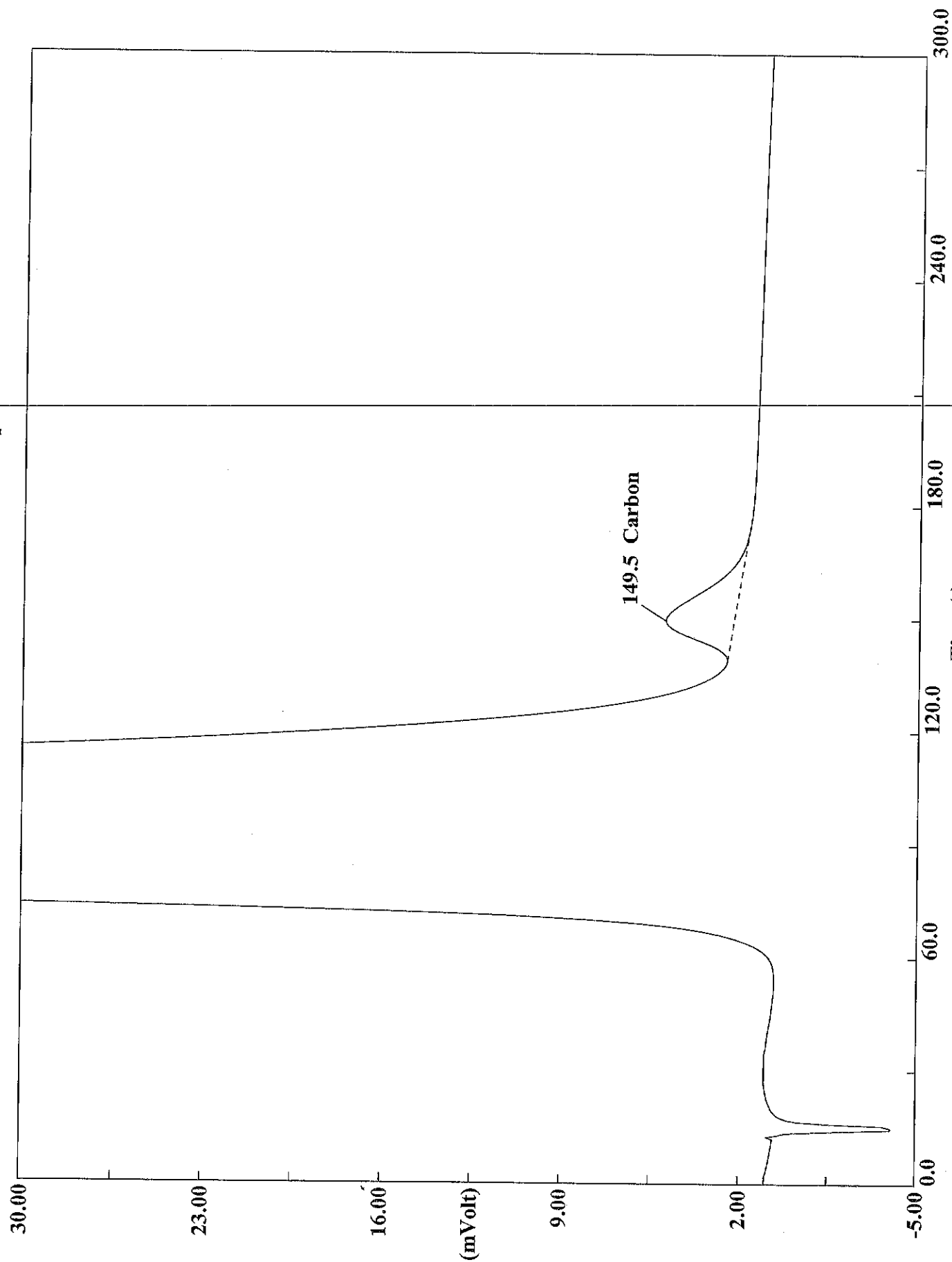
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.5288	150	385340	mi	1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314062.DAT

Sample name :180-37686-c-2 Analysed :10/23/2014 11:17

# Eager 300 Report

Page: 1 Sample: 180-37686-c-2 (A102314062)

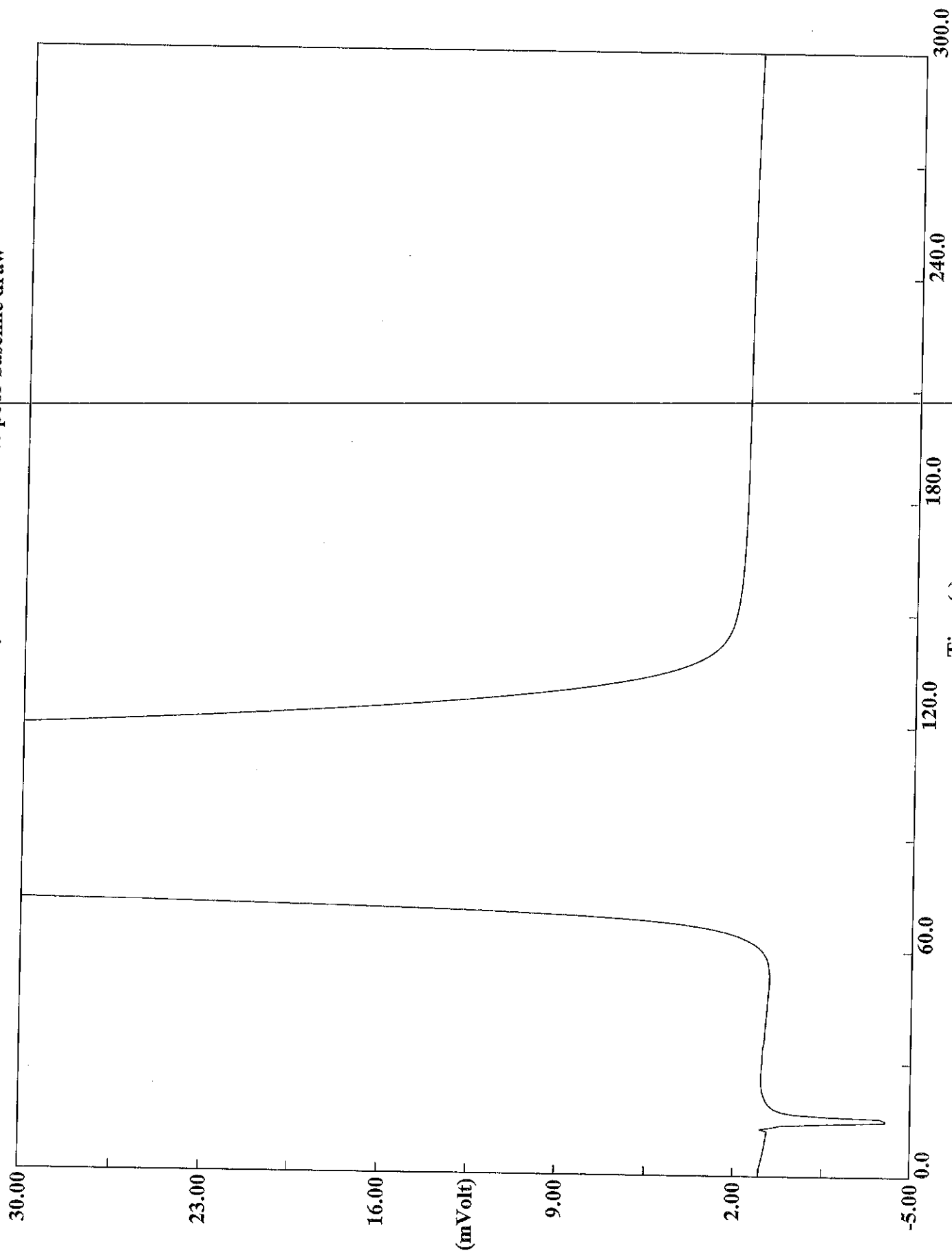
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314062  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:17 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-2 (# 24)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 13.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4481	150	367904 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314063.DAT  
Sample name :rinse Analysed :10/23/2014 11:22

# Eager 300 Report

Page: 1 Sample: rinse (A102314063)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314063  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:22 Printed : 10/24/2014 03:49  
Sample ID : rinse (# 25)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

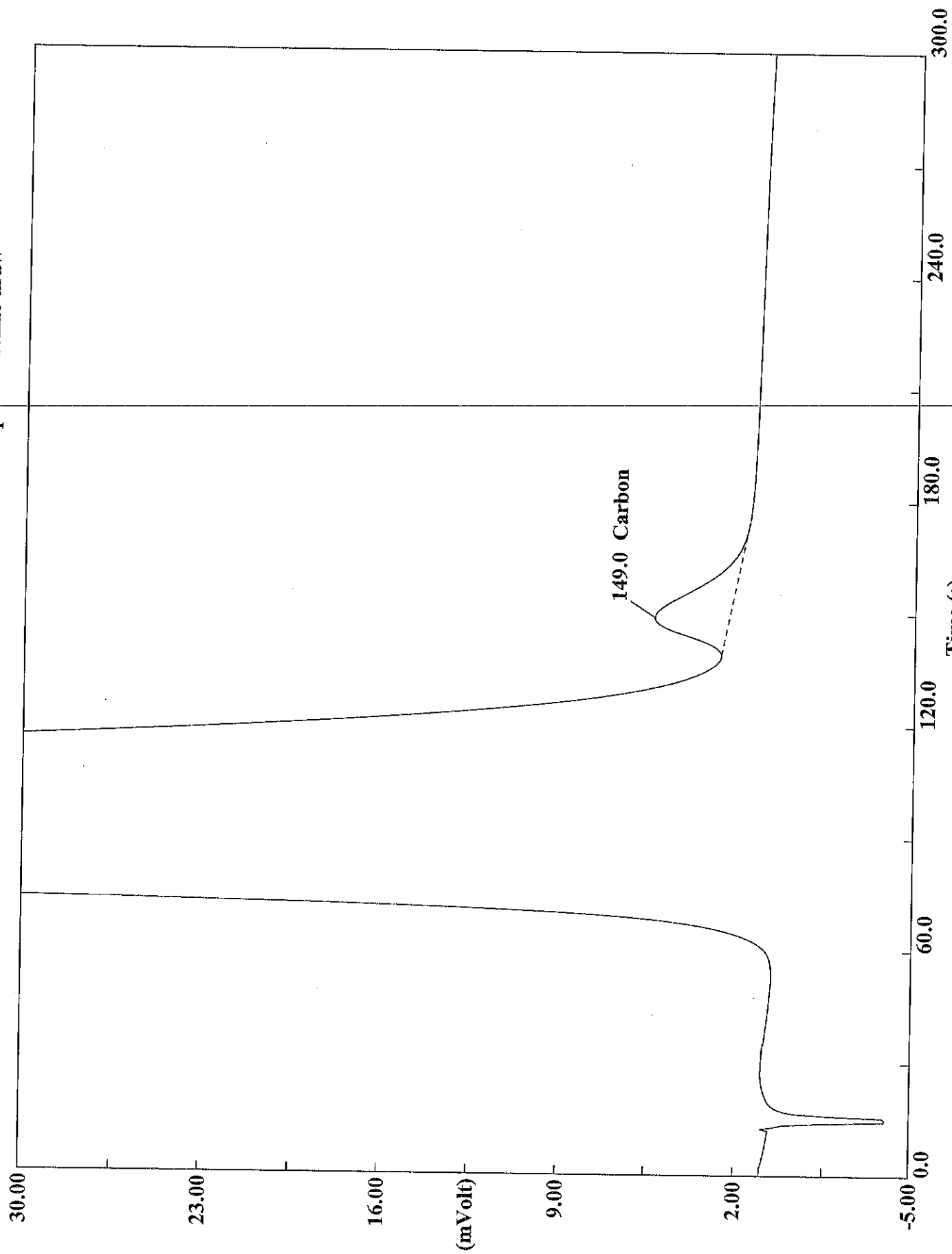
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314064.DAT

Sample name :180-37686-c-3 Analysed :10/23/2014 11:27

# Eager 300 Report

Page: 1 Sample: 180-37686-c-3 (A102314064)

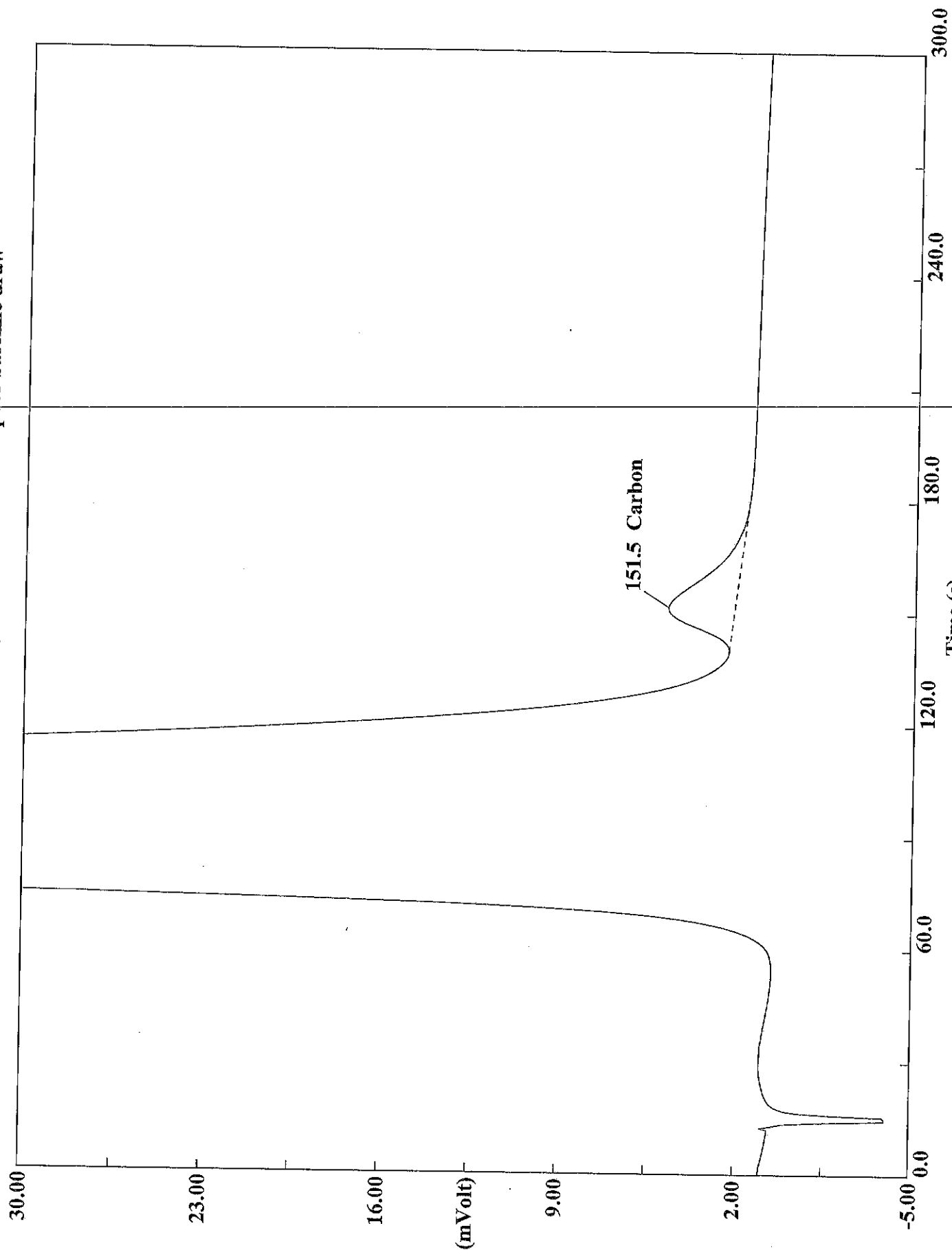
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314064  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:27 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-3 (# 26)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 16.1

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3303	149	398812 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314065.DAT

Sample name : 180-37686-c-3 Analysed : 10/23/2014 11:32

# Eager 300 Report

Page: 1 Sample: 180-37686-c-3 (A102314065)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314065  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:32 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-3 (# 27)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 15.2

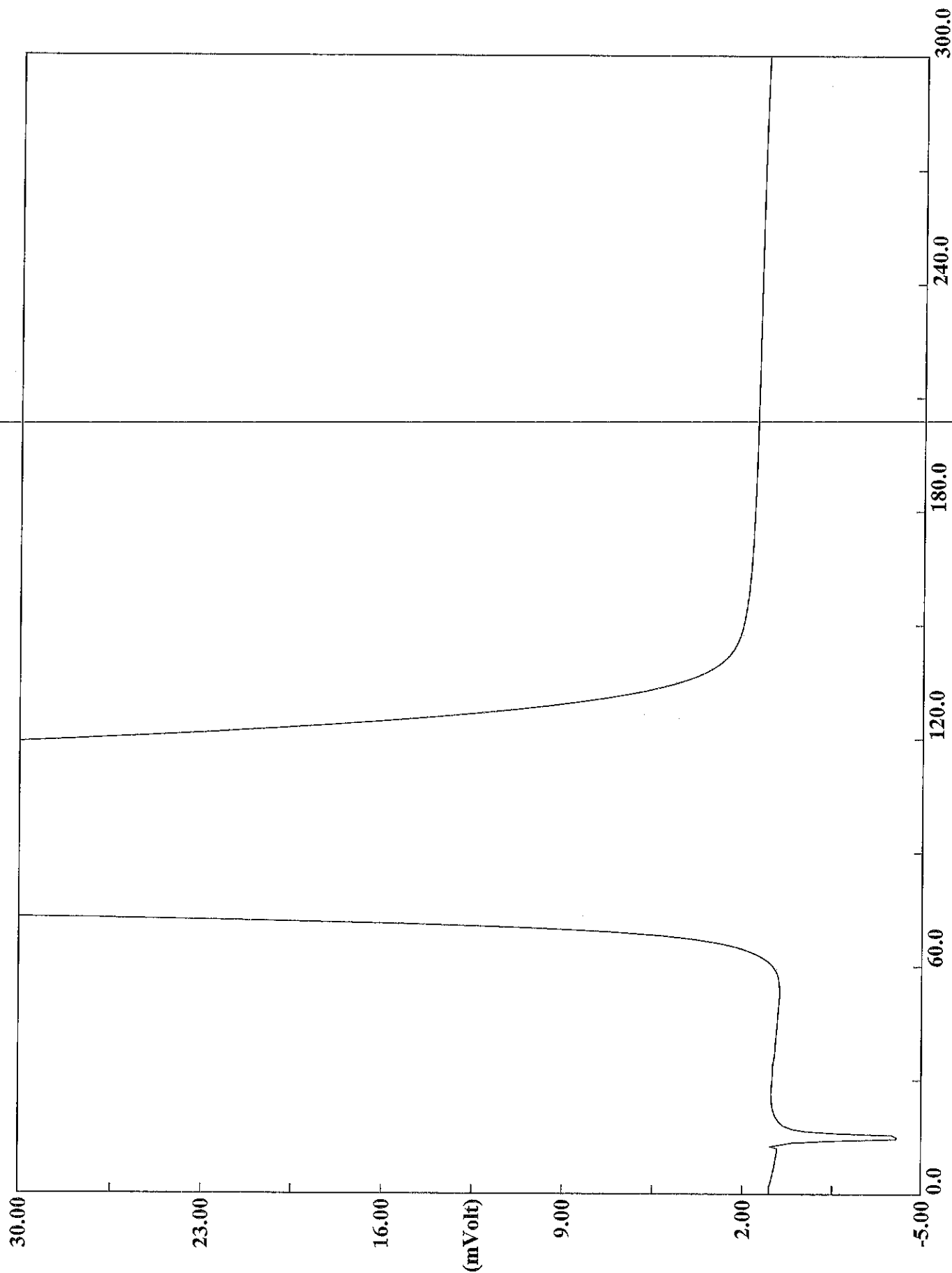
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3993	152	395615	mi	1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314066.DAT  
Sample name :rinse Analysed :10/23/2014 11:38

# Eager 300 Report

Page: 1 Sample: rinse (A102314066)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314066  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:38 Printed : 10/24/2014 03:49  
Sample ID : rinse (# 28)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

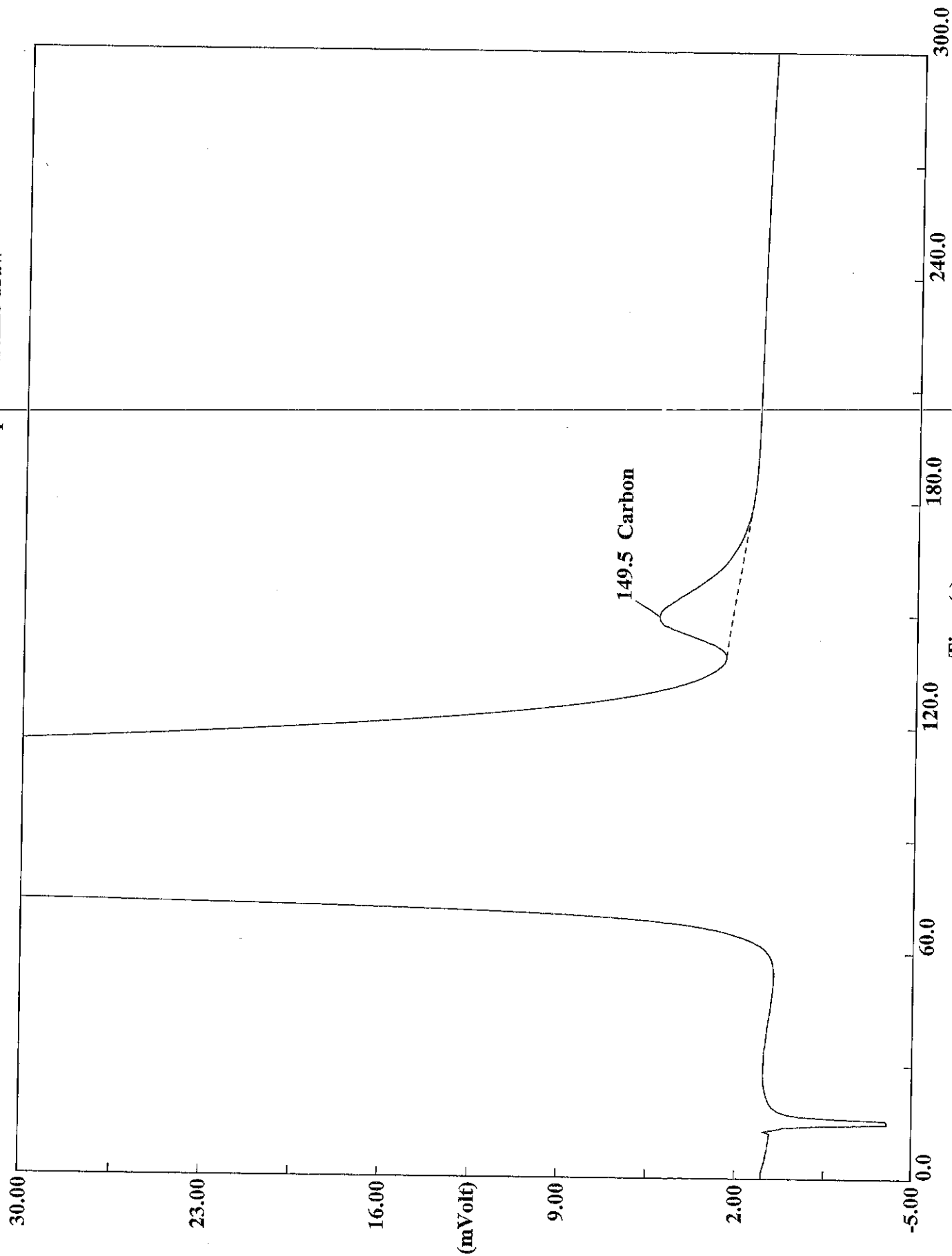
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314067.DAT

Sample name : 180-37686-c-5 Analysed : 10/23/2014 11:43

# Eager 300 Report

Page: 1 Sample: 180-37686-c-5 (A102314067)

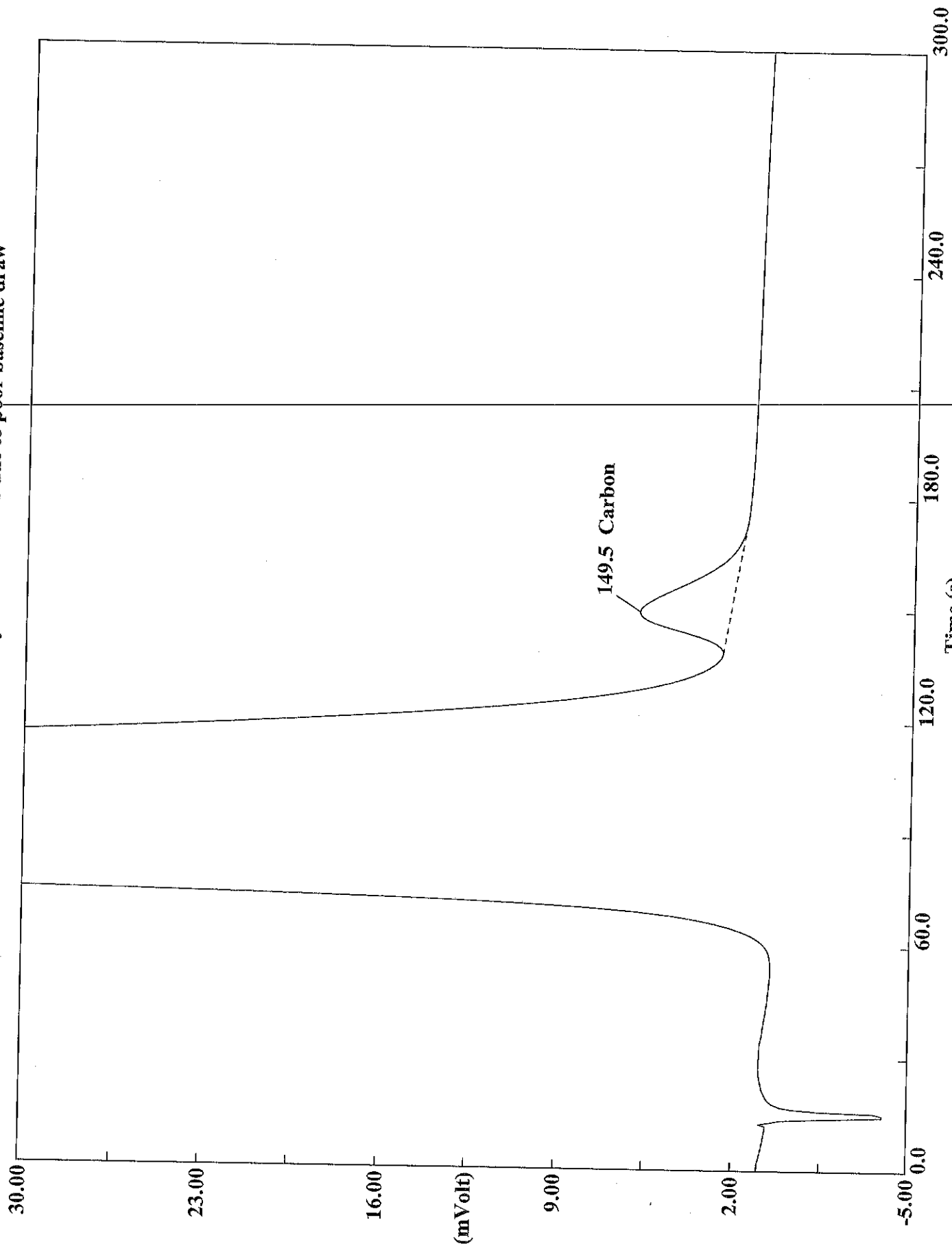
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314067  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:43 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-5 (# 29)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 13.7

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.6784	150	432808 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314068.DAT

Sample name : 180-37686-c-5 Analysed : 10/23/2014 11:48

# Eager 300 Report

Page: 1 Sample: 180-37686-c-5 (A102314068)

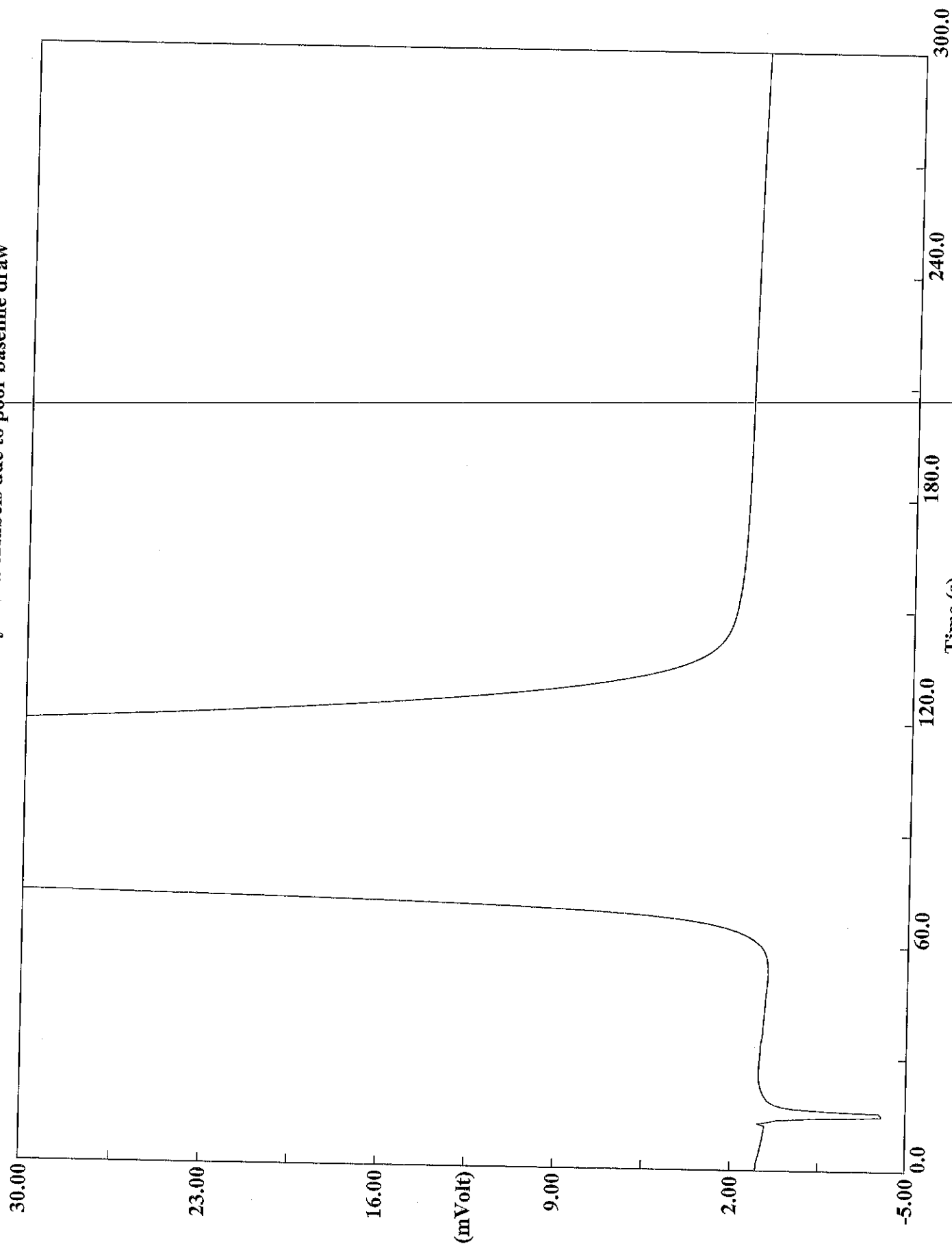
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314068  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:48 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-5 (# 30)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 14.3

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.8191	150	497878 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314069.DAT  
Sample name :rinse Analysed :10/23/2014 11:53

# Eager 300 Report

Page: 1 Sample: rinse (A102314069)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314069  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:53 Printed : 10/24/2014 03:49  
Sample ID : rinse (# 31)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

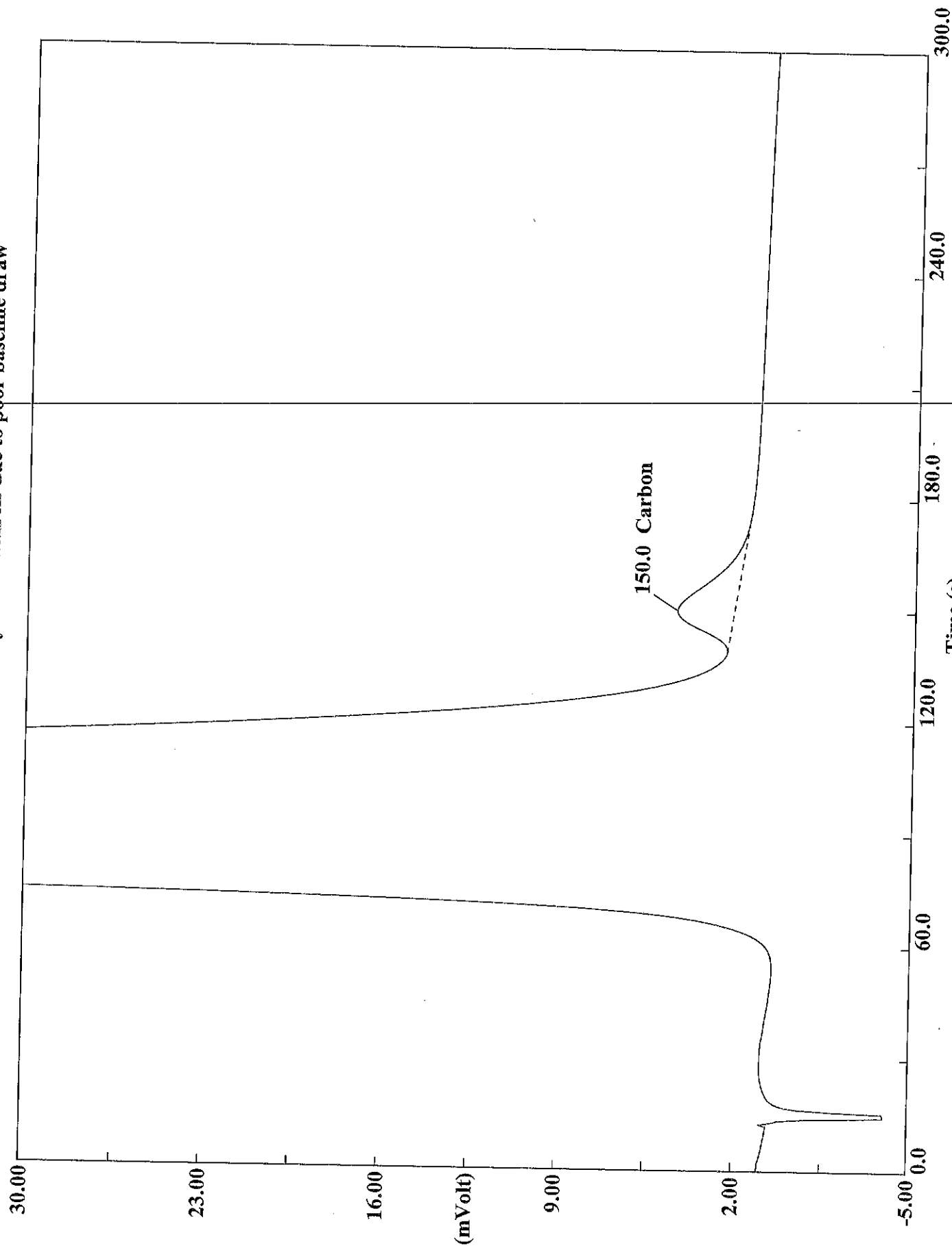
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314070.DAT

Sample name :180-37686-c-6 Analysed :10/23/2014 11:59

# Eager 300 Report

Page: 1 Sample: 180-37686-c-6 (A102314070)

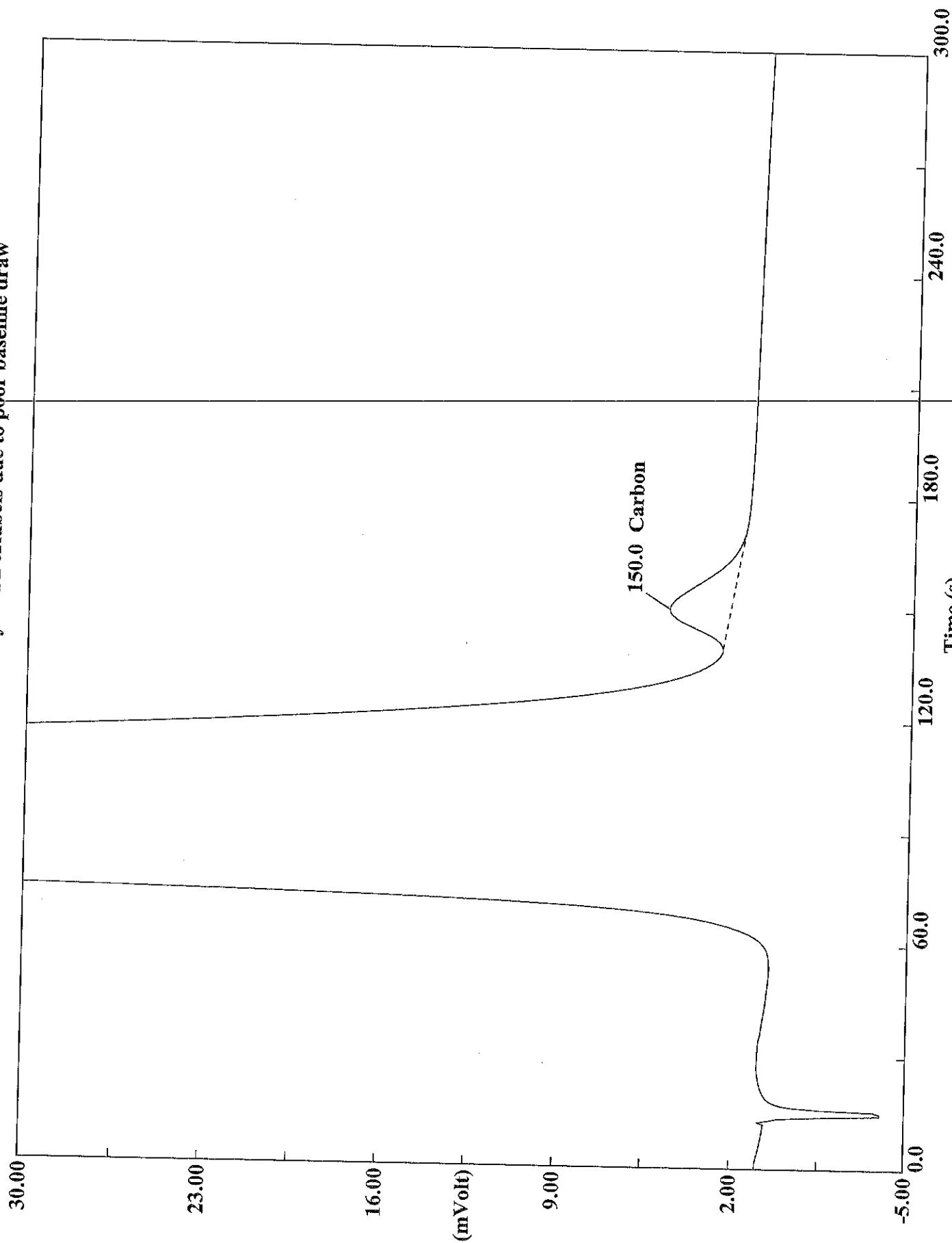
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314070  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 11:59 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-6 (# 32)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.5391	150	318667 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314071.DAT

Sample name : 180-37686-c-6 Analysed : 10/23/2014 12:04

# Eager 300 Report

Page: 1 Sample: 180-37686-c-6 (A102314071)

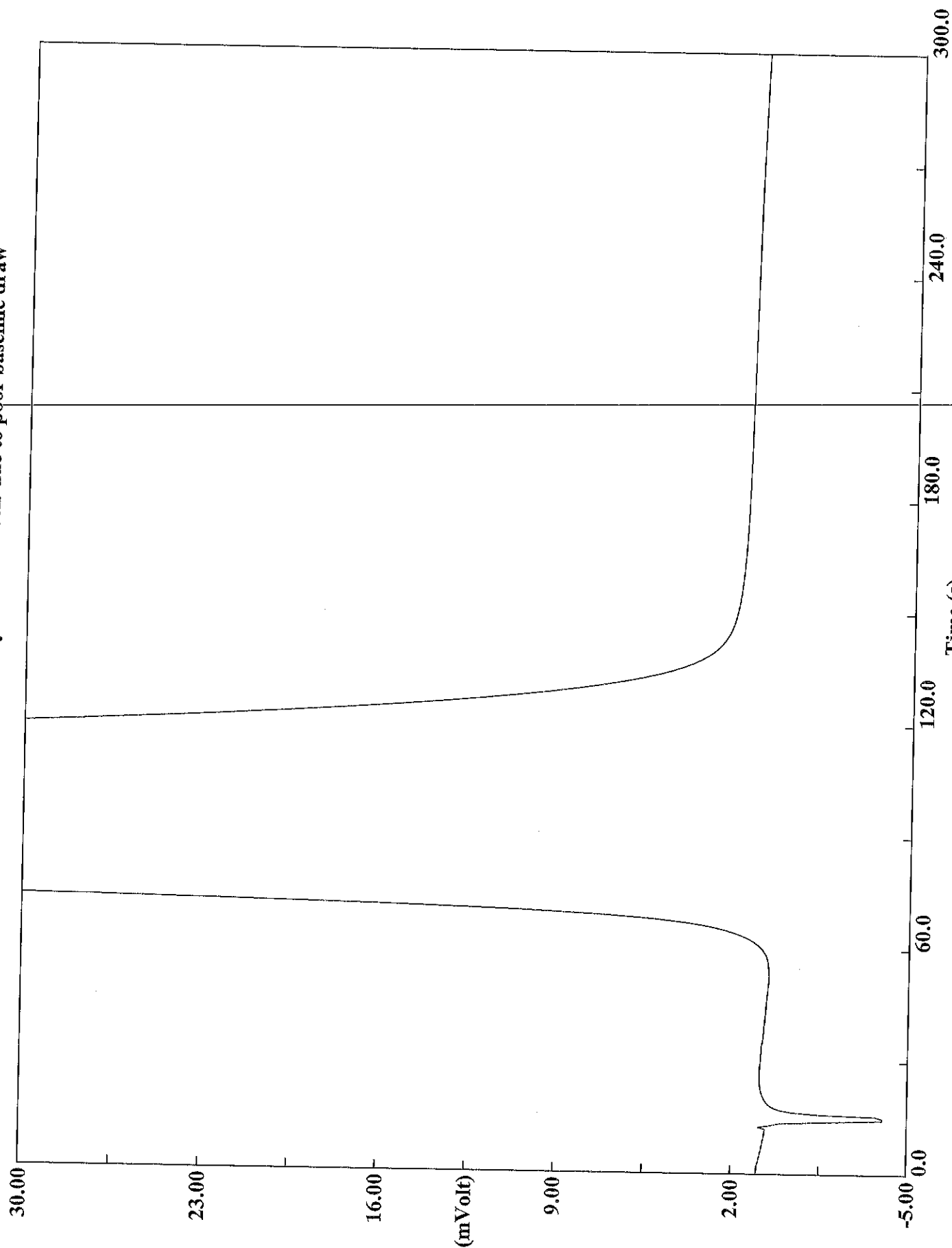
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314071  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:04 Printed : 10/24/2014 03:49  
Sample ID : 180-37686-c-6 (# 33)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 10.7

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.6955	150	328205 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314072.DAT  
Sample name :rinse Analysed :10/23/2014 12:09

# Eager 300 Report

Page: 1 Sample: rinse (A102314072)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314072  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:09 Printed : 10/24/2014 03:49  
Sample ID : rinse (# 34)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

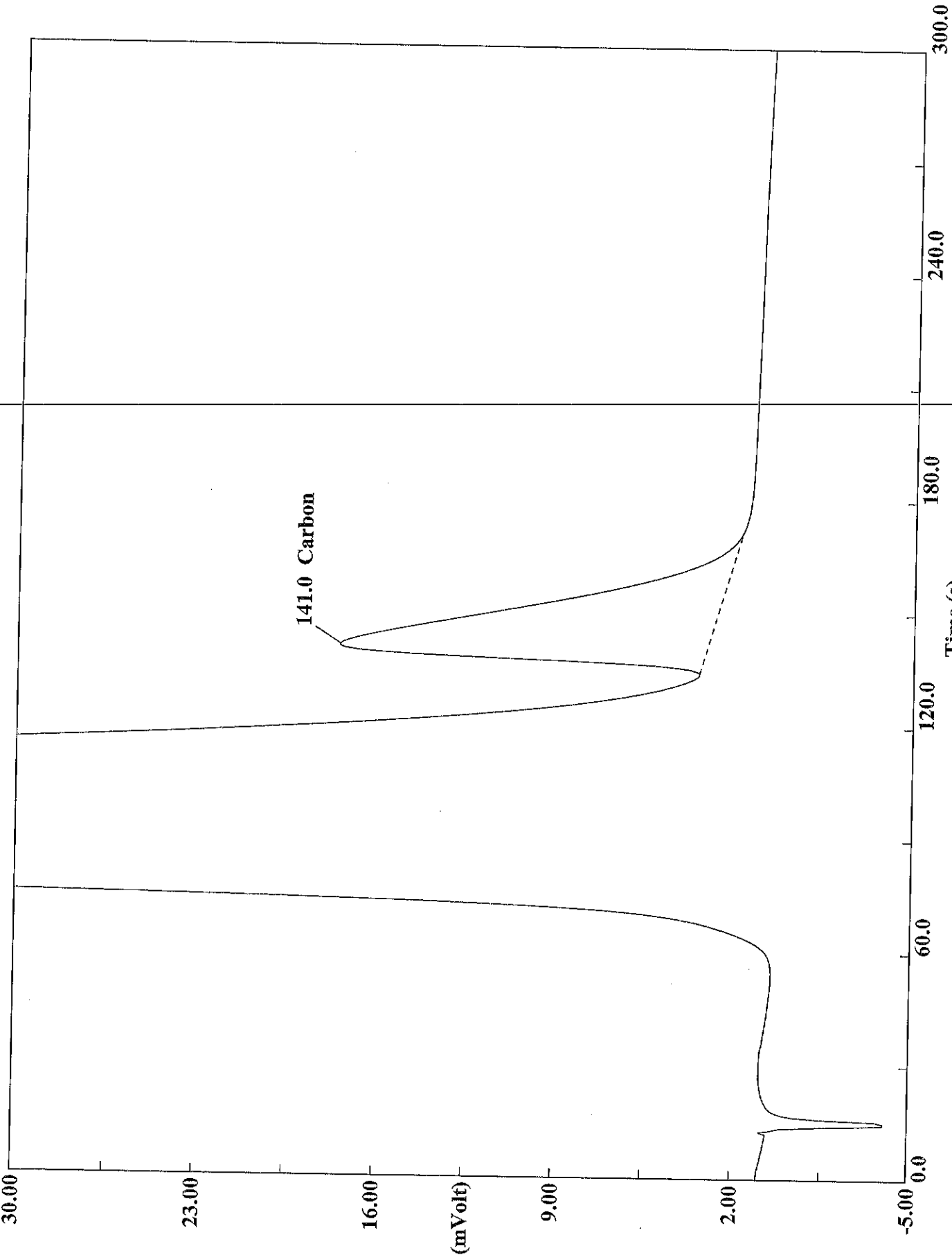
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314073.DAT  
Sample name :ccv Analysed :10/23/2014 12:14

# Eager 300 Report

Page: 1 Sample: ccv (A102314073)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314073  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:14 Printed : 10/24/2014 03:49  
Sample ID : ccv (# 35)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

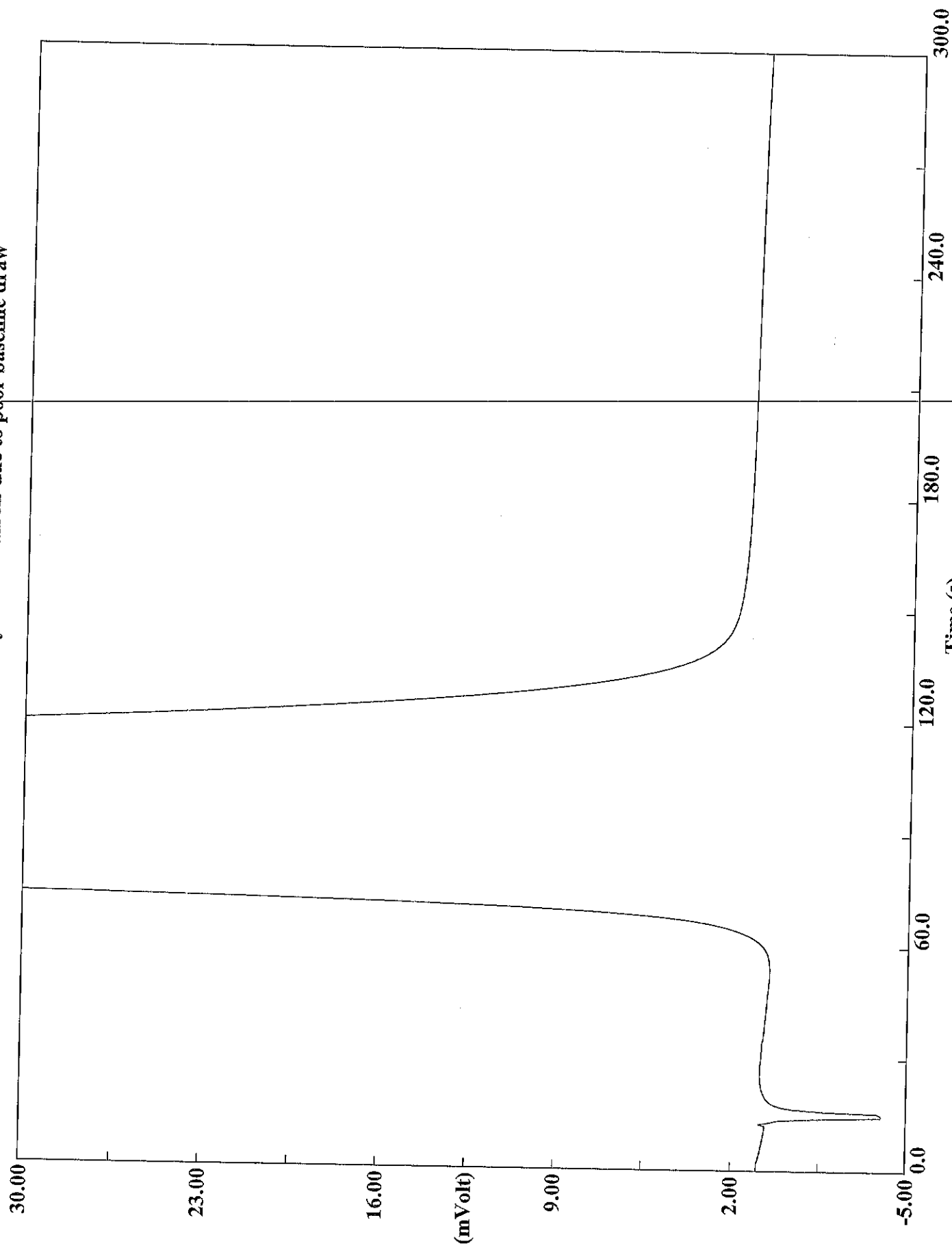
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.0400	141	2178865 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314074.DAT  
Sample name :ccb Analysed :10/23/2014 12:20

# Eager 300 Report

Page: 1 Sample: ccb (A102314074)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314074  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:20 Printed : 10/24/2014 03:49  
Sample ID : ccb (# 36)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

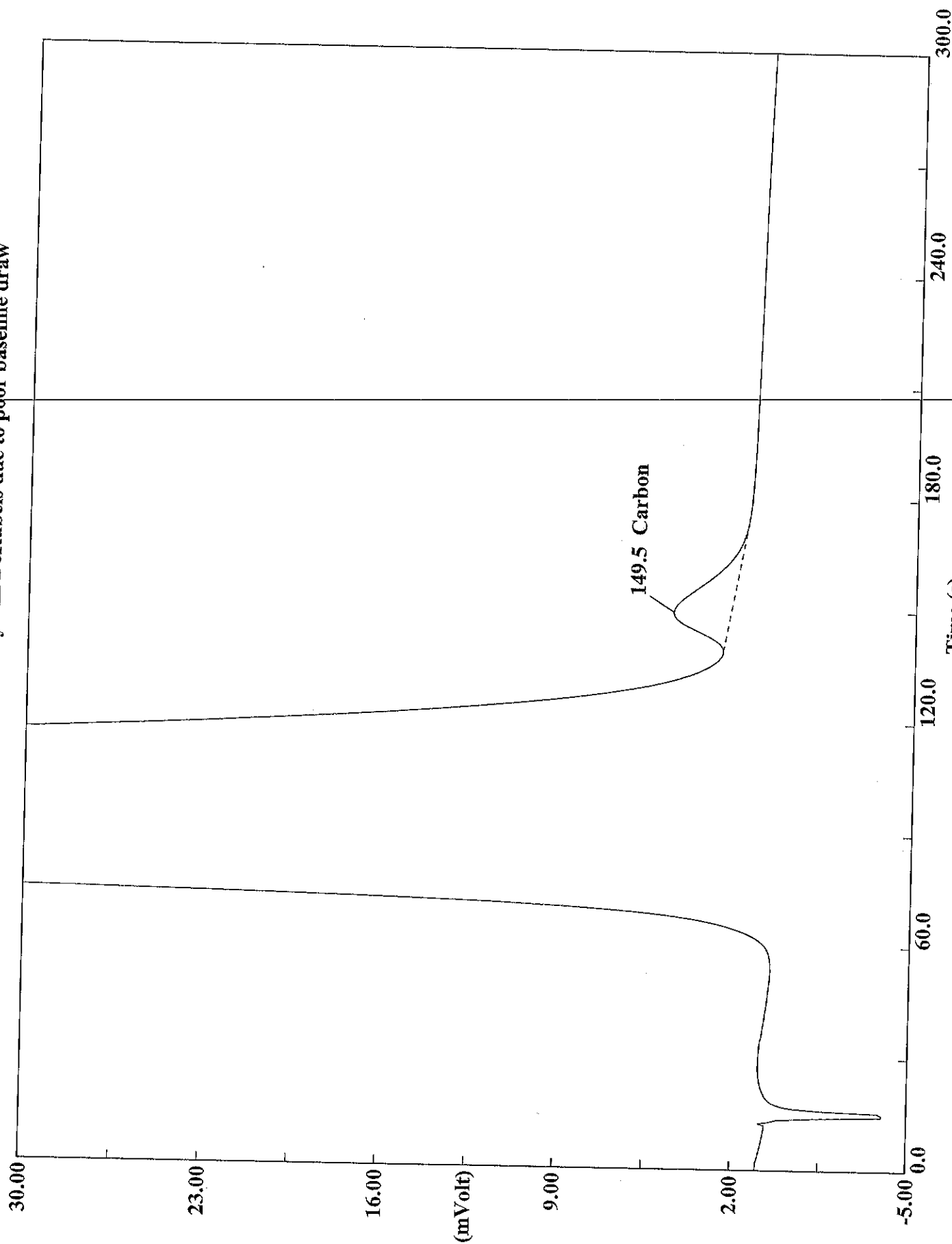
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314075.DAT

Sample name : 180-37686-c-7 Analyzed : 10/23/2014 12:25

# Eager 300 Report

Page: 1 Sample: 180-37686-c-7 (A102314075)

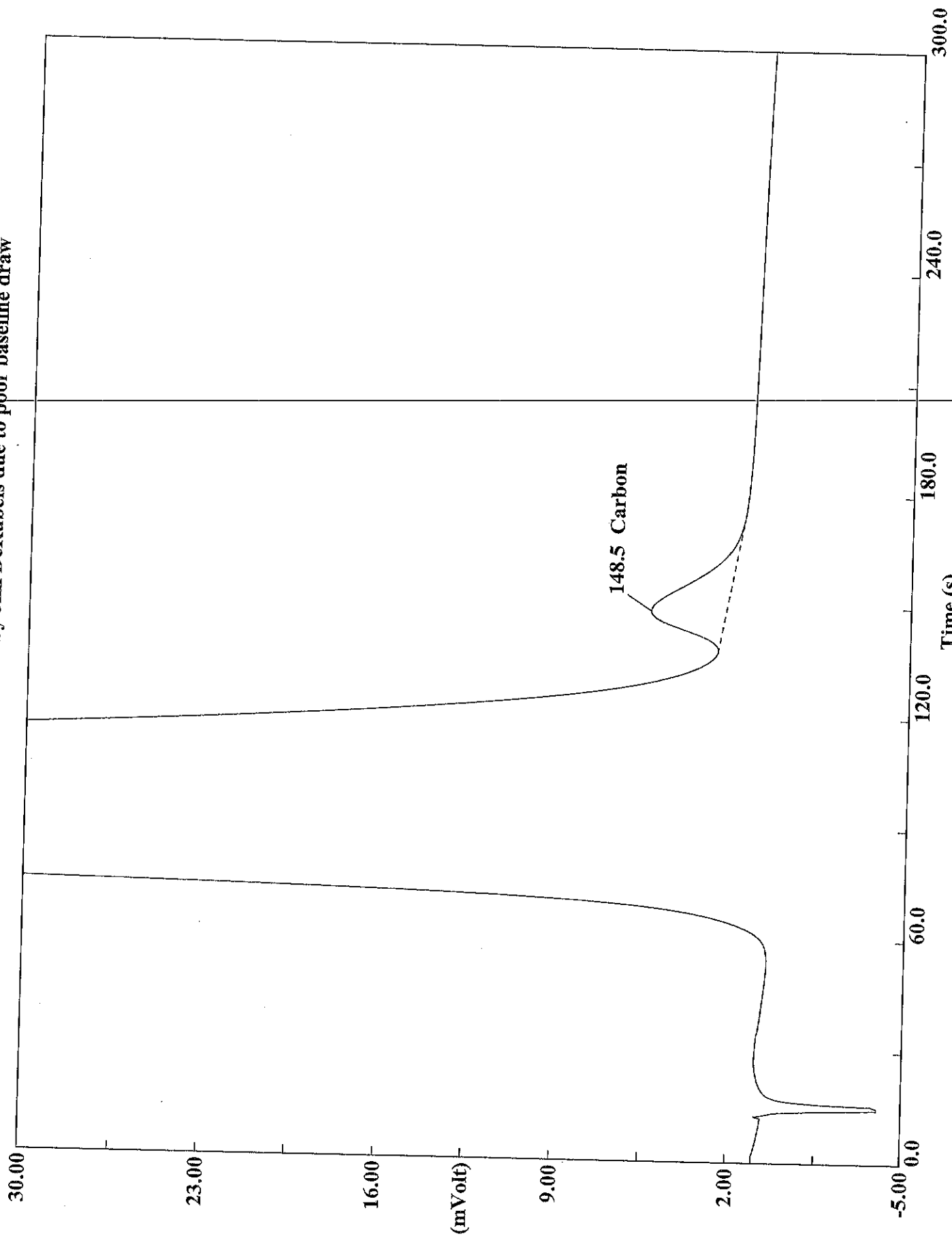
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314075  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 12:25  
Sample ID : 180-37686-c-7 (# 37)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 03:59  
Sample weight : 12.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4412	150	322368 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314076.DAT

Sample name :180-37686-c-7 Analysed :10/23/2014 12:30

# Eager 300 Report

Page: 1 Sample: 180-37686-c-7 (A102314076)

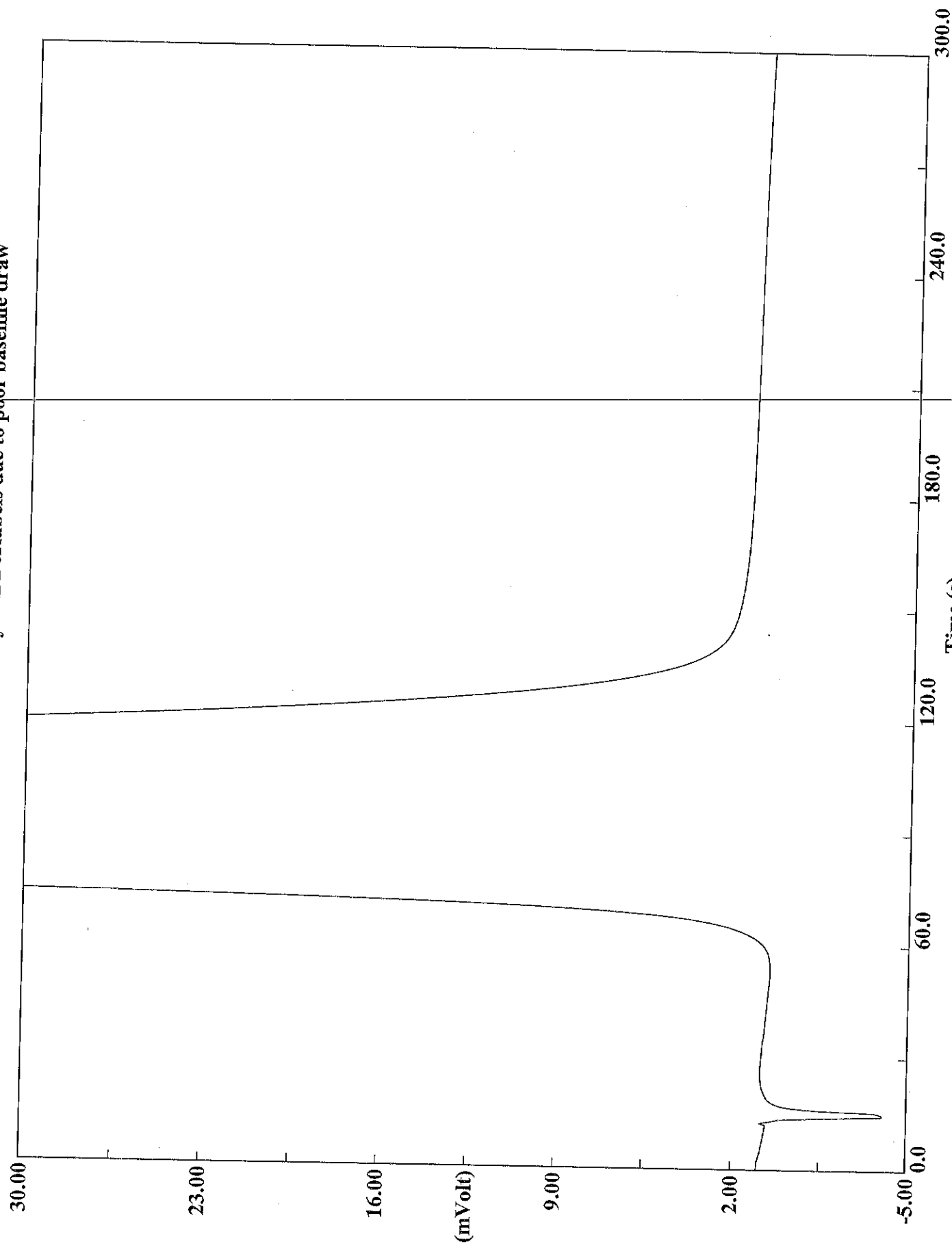
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314076  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 12:30  
Sample ID : 180-37686-c-7 (# 38)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 03:59  
Sample weight : 12.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.8056	149	423670 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314077.DAT  
Sample name :rinse Analysed :10/23/2014 12:35

# Eager 300 Report

Page: 1 Sample: rinse (A102314077)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314077  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:35 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 39)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

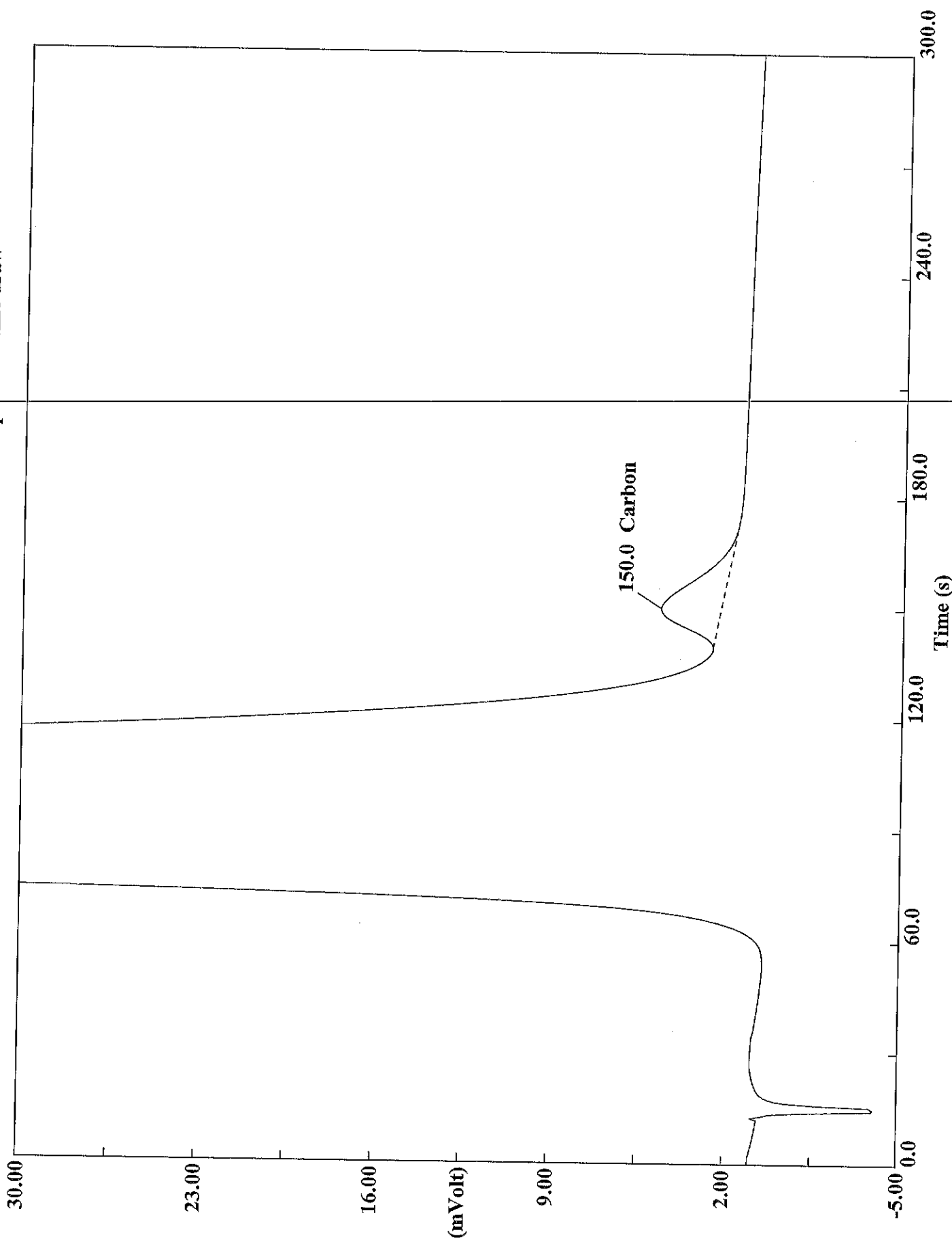
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314078.DAT

Sample name :180-37686-c-8 Analysed :10/23/2014 12:41

# Eager 300 Report

Page: 1 Sample: 180-37686-c-8 (A102314078)

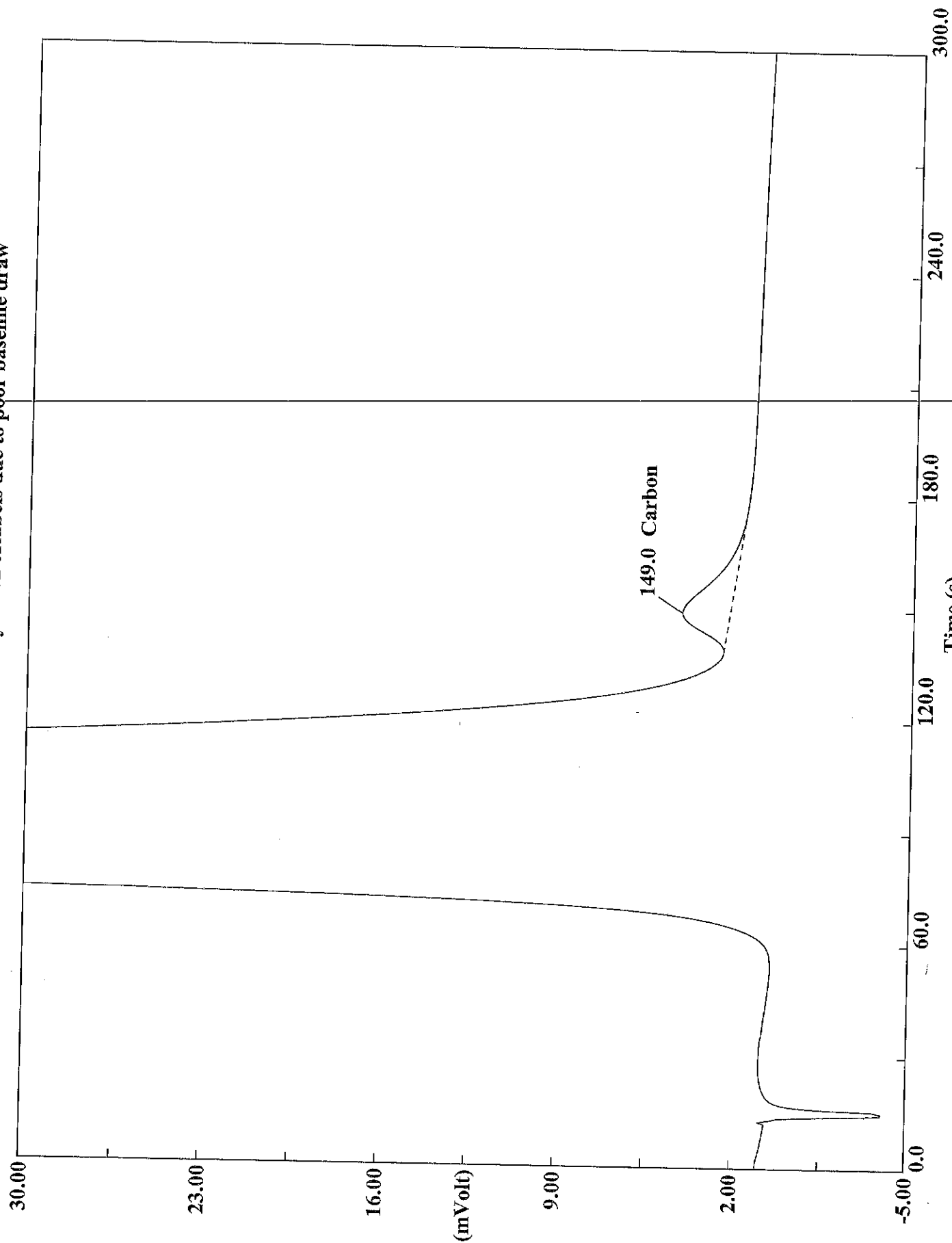
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314078  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:41 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-8 (# 40)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.6918	150	338297 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314079.DAT

Sample name :180-37686-c-8 Analysed :10/23/2014 12:46

# Eager 300 Report

Page: 1 Sample: 180-37686-c-8 (A102314079)

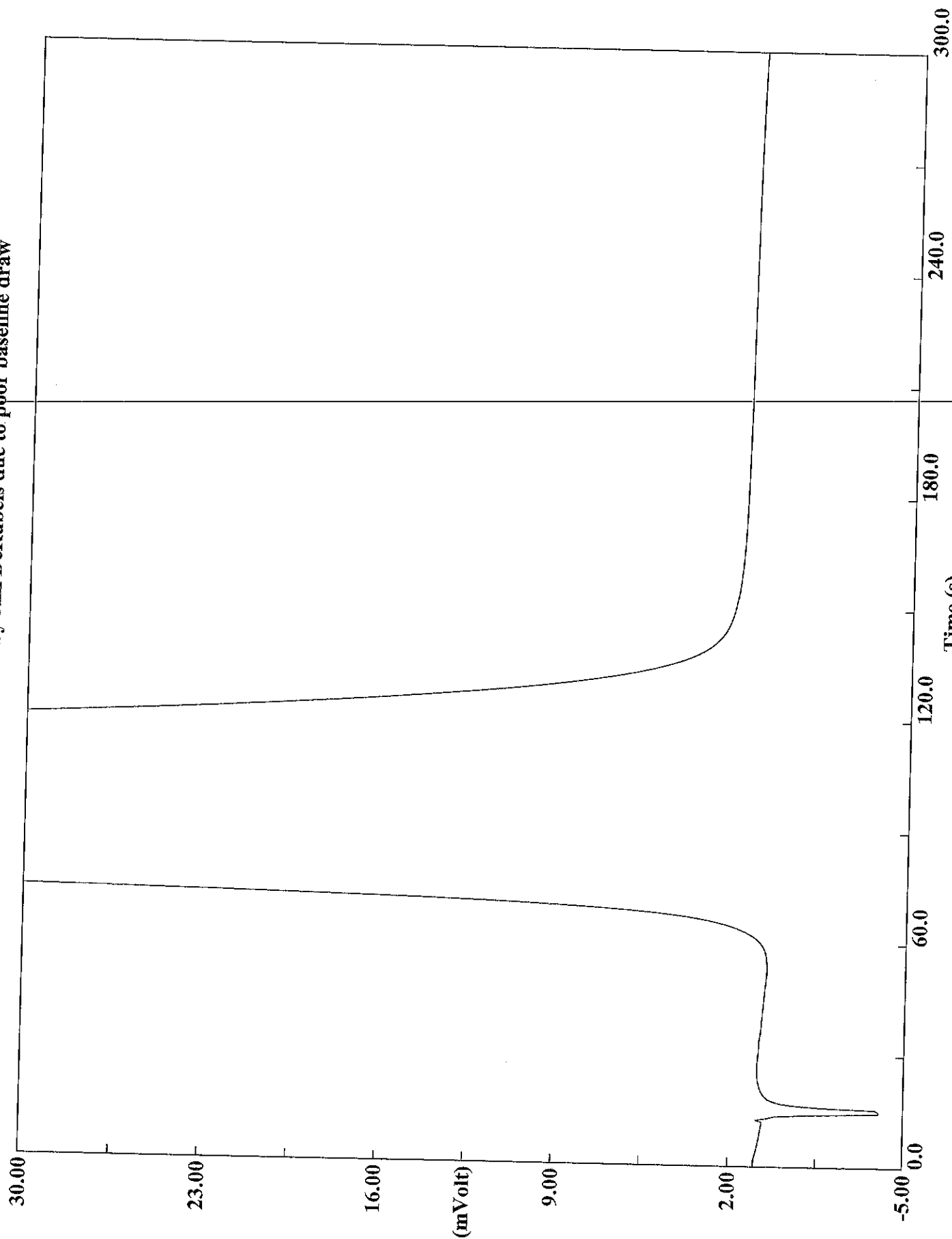
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314079  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:46 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-8 (# 41)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 10.9

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4338	149	274030 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314080.DAT  
Sample name :rinse Analysed :10/23/2014 12:51

# Eager 300 Report

Page: 1 Sample: rinse (A102314080)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314080  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:51 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 42)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

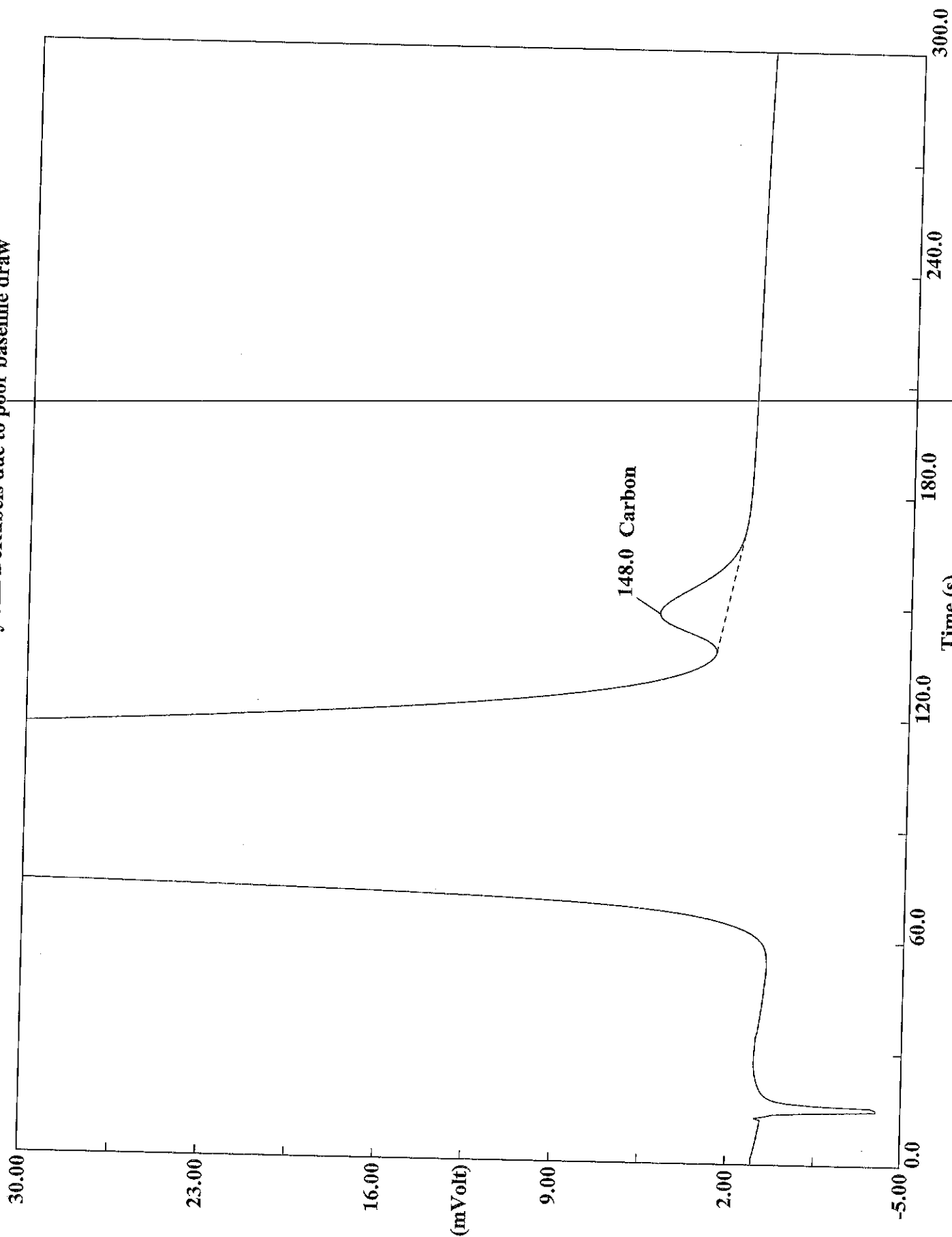
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314081.DAT

Sample name :180-37686-c-9 Analysed :10/23/2014 12:56

# Eager 300 Report

Page: 1 Sample: 180-37686-c-9 (A102314081)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314081  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 12:56 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-9 (# 43)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 14.9

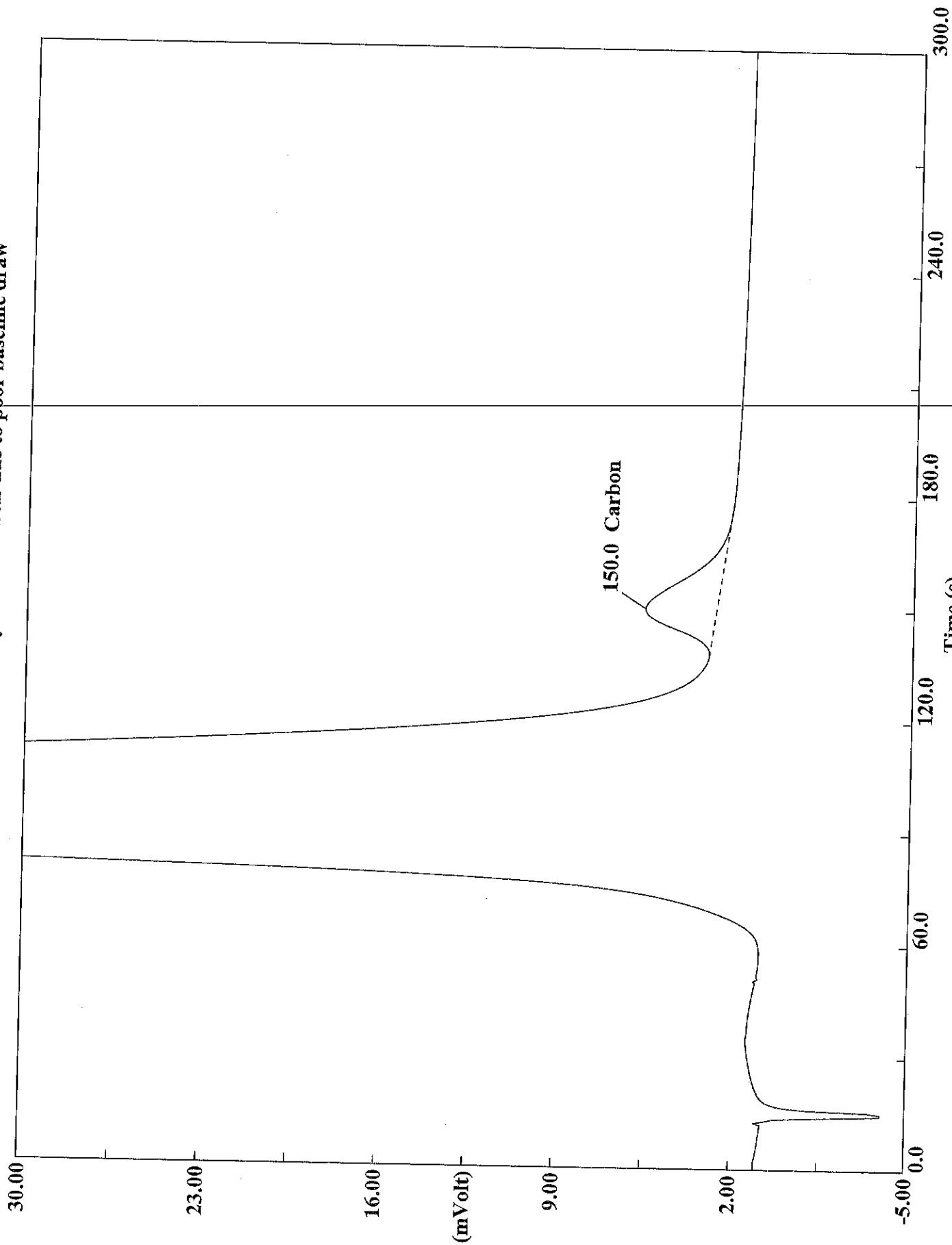
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.2992	148	354438	mi	1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314082.DAT  
Sample name :180-37686-c-9 Analysed :10/23/2014 13:08

# Eager 300 Report

Page: 1 Sample: 180-37686-c-9 (A102314082)

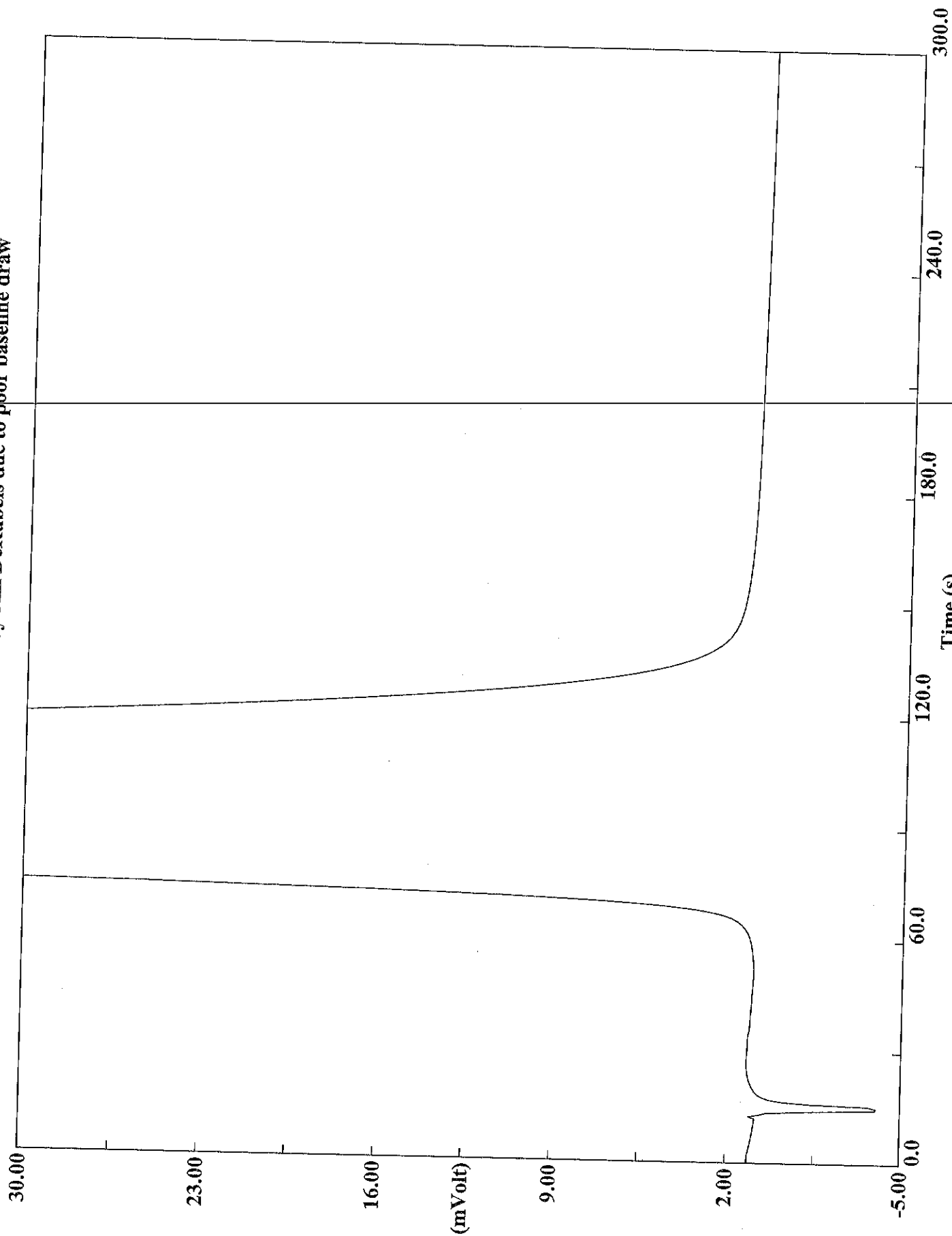
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314082  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:08 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-9 (# 44)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 14.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.5343	150	413389 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314083.DAT  
Sample name :rinse Analysed :10/23/2014 13:14

# Eager 300 Report

Page: 1 Sample: rinse (A102314083)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314083  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:14 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 45)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

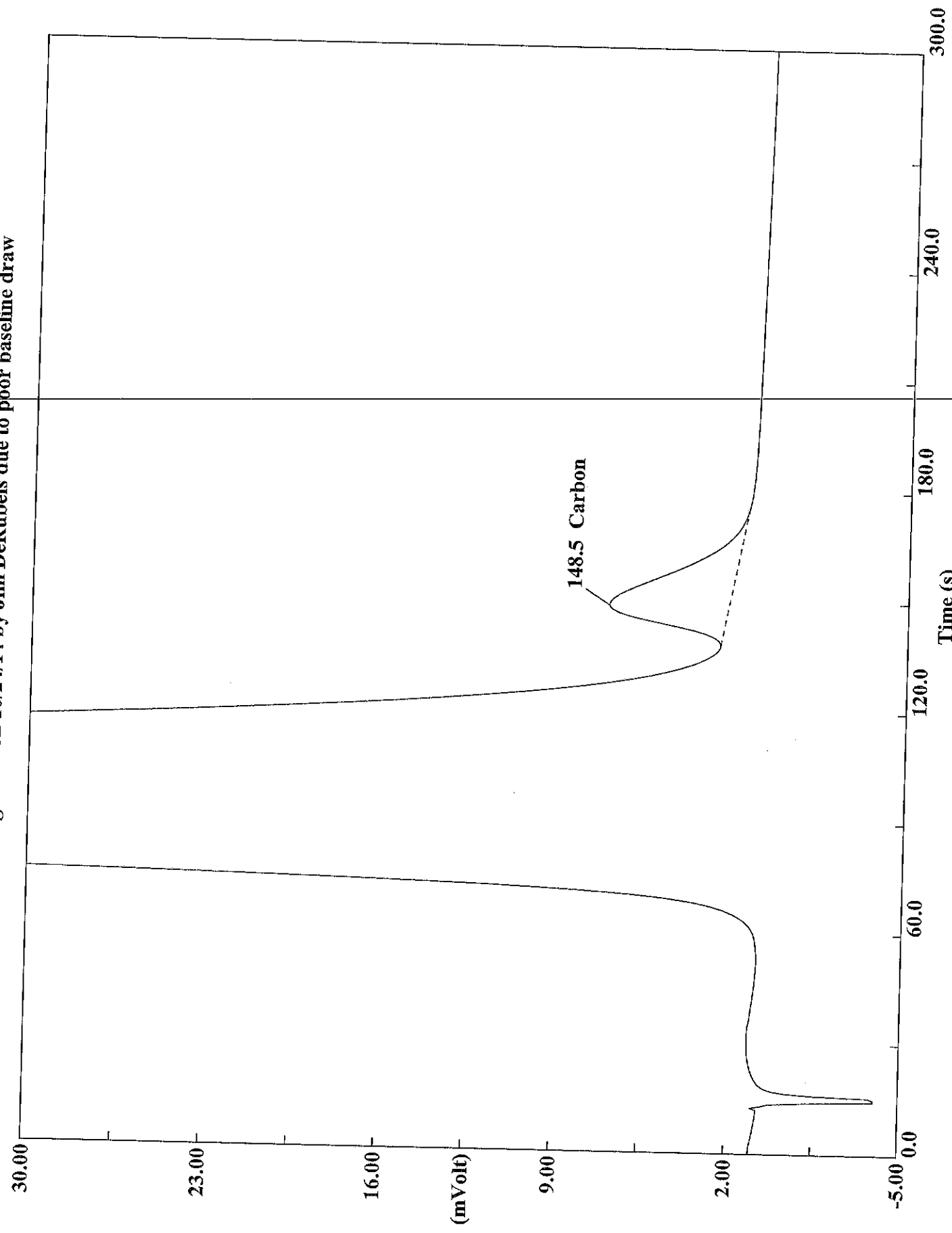
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314084.DAT  
Sample name : 180-37686-c-10 Analysed : 10/23/2014 13:19

# Eager 300 Report

Page: 1 Sample: 180-37686-c-10 (A102314084)

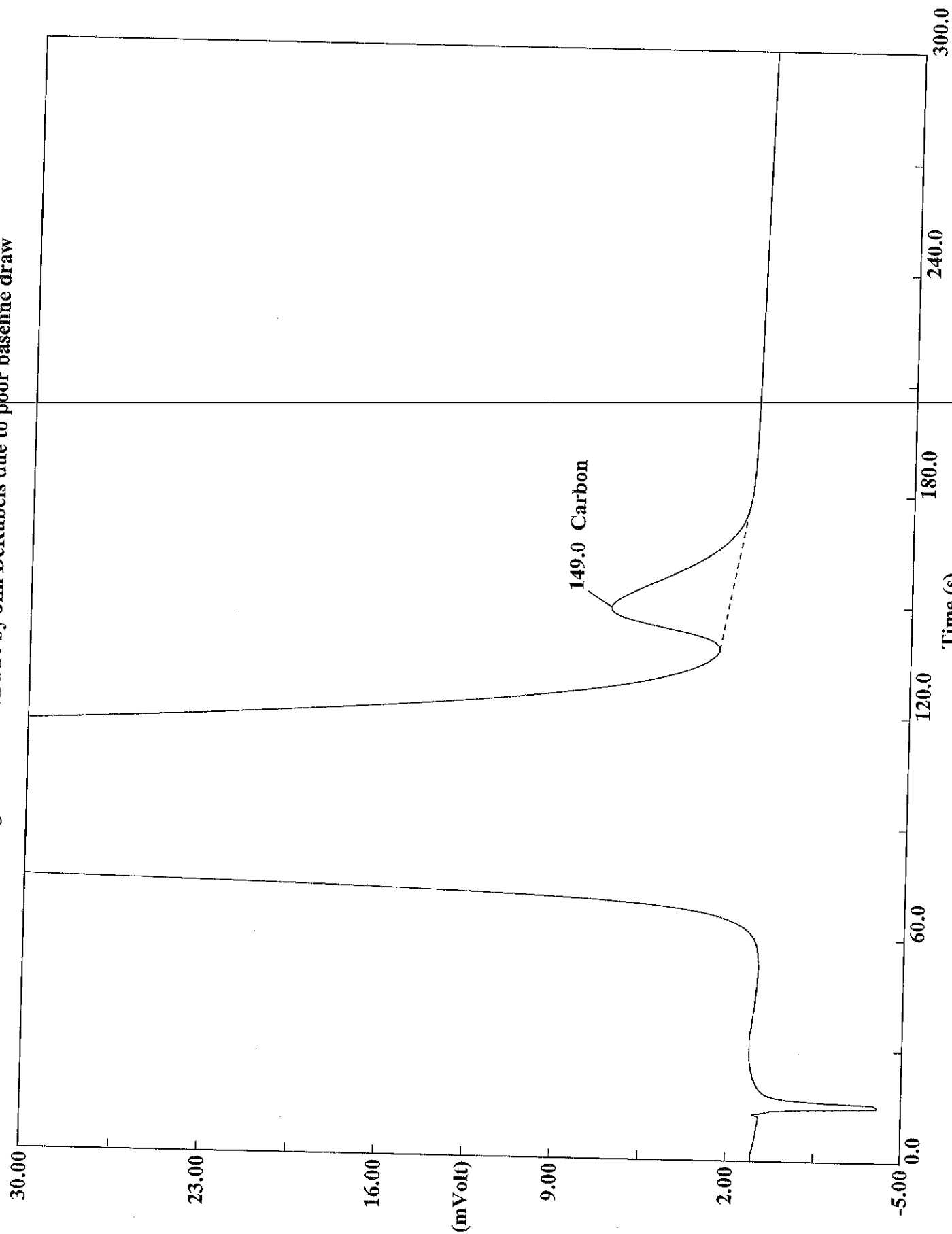
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314084  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:19 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-10 (# 46)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 8.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	4.3252	149	729625 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314085.DAT  
Sample name : 180-37686-c-10 Analysed : 10/23/2014 13:24

# Eager 300 Report

Page: 1 Sample: 180-37686-c-10 (A102314085)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314085  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:24 Printed : 10/24/2014 03:59  
Sample ID : 180-37686-c-10 (# 47)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 8.2

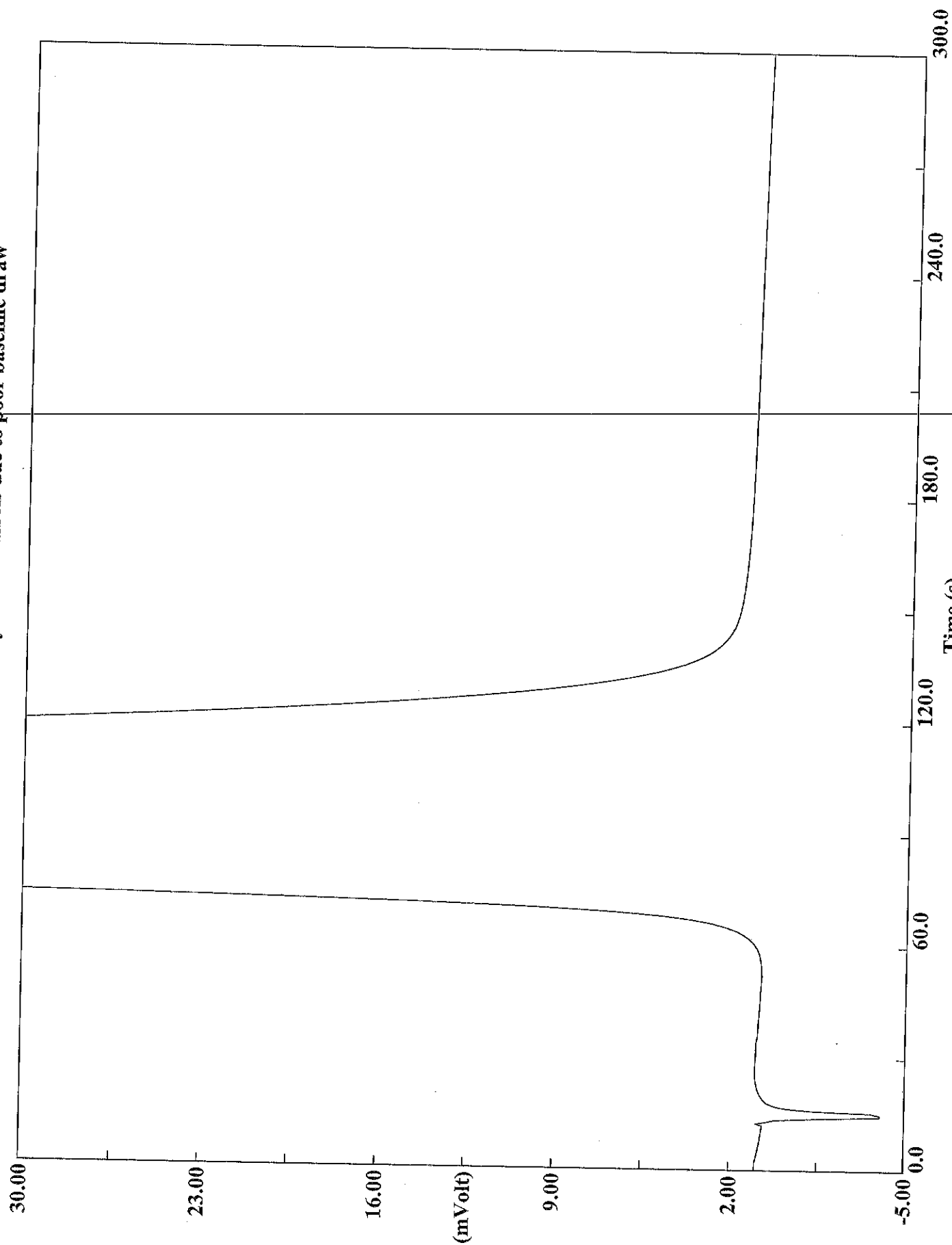
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	4.5024	149	732979 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314086.DAT  
Sample name :rinse Analysed :10/23/2014 13:29

# Eager 300 Report

Page: 1 Sample: rinse (A102314086)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314086  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:29 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 48)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

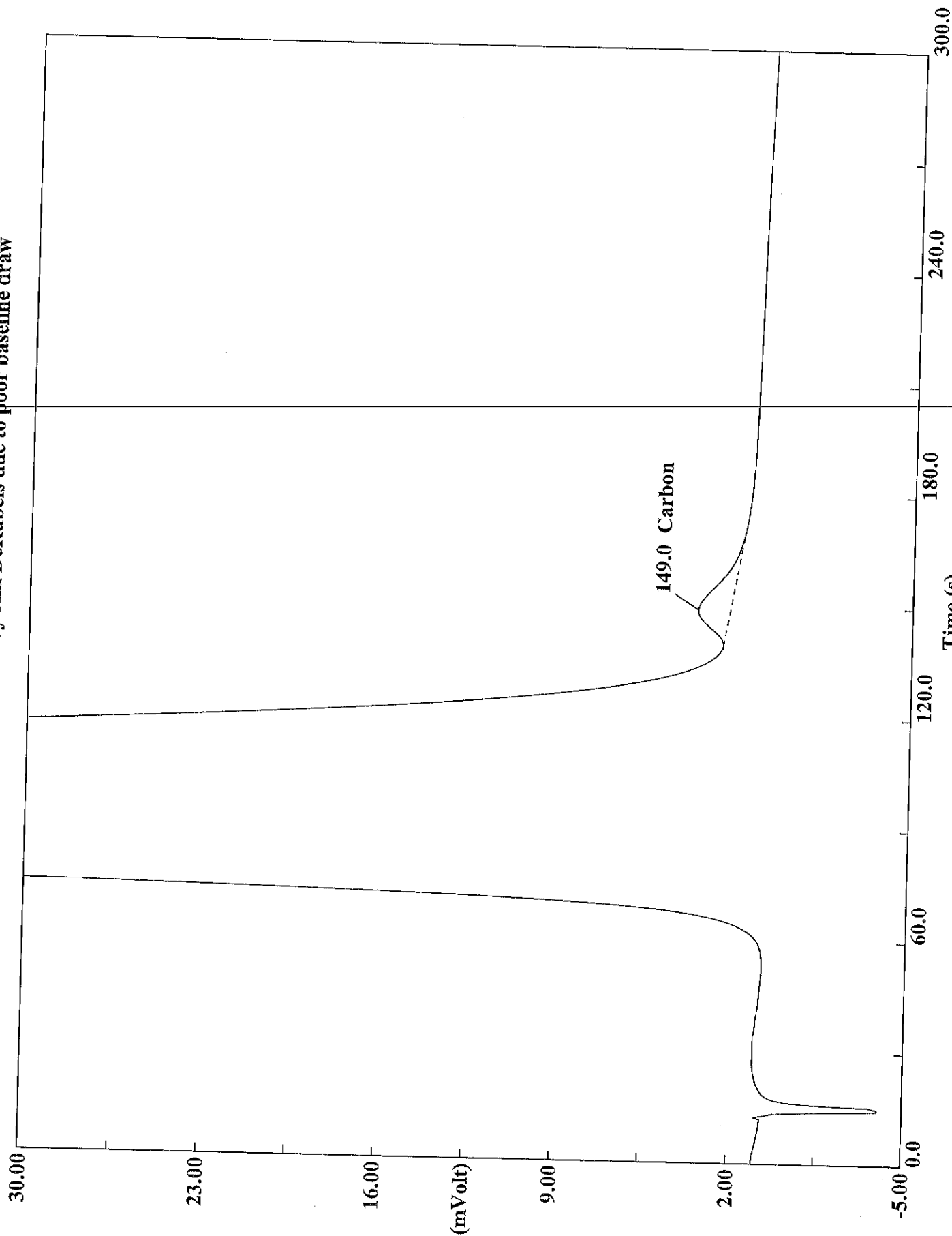
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314087.DAT

Sample name :180-37728-d-15 Analysed :10/23/2014 13:35

# Eager 300 Report

Page: 1 Sample: 180-37728-d-15 (A102314087)

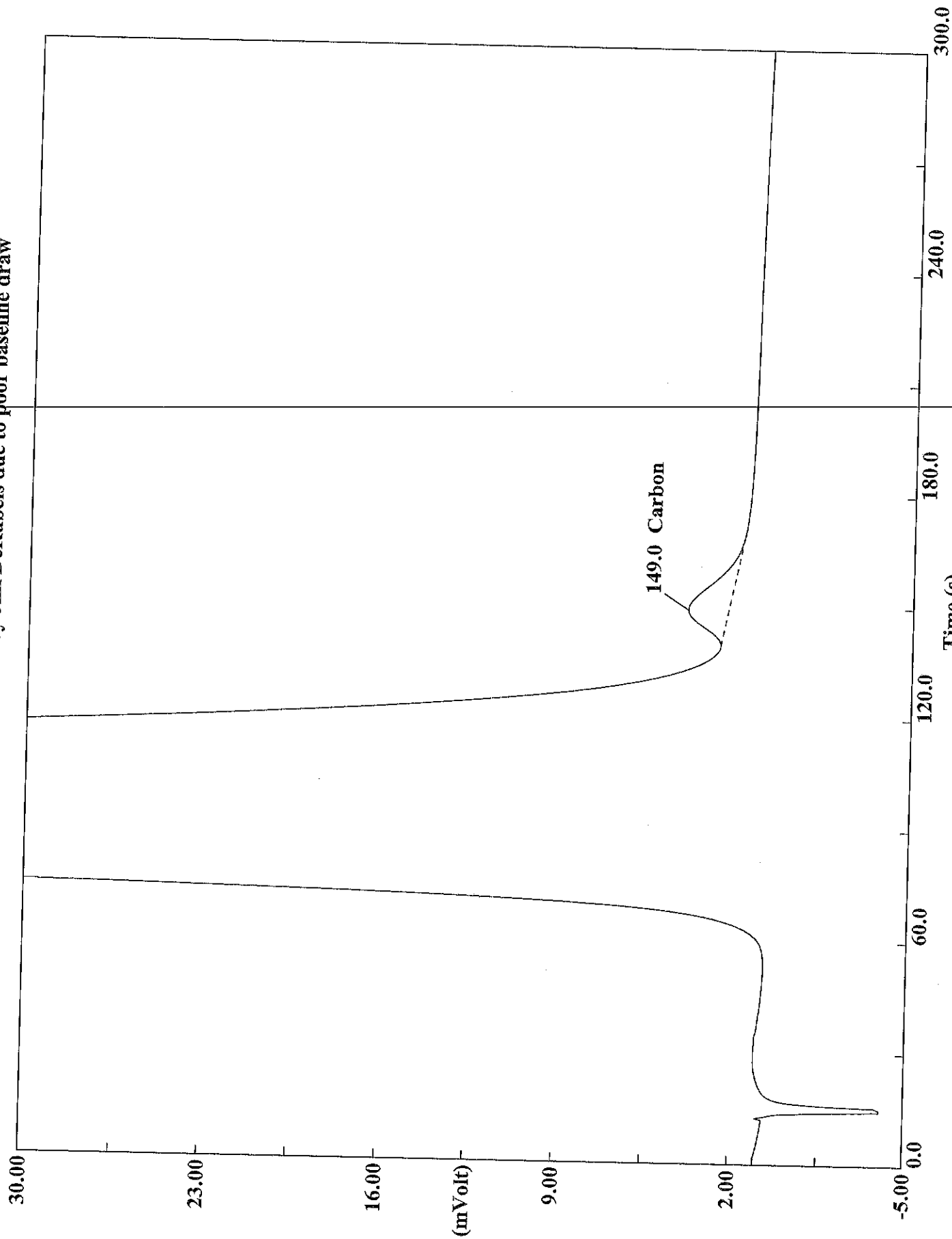
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314087  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:35 Printed : 10/24/2014 03:59  
Sample ID : 180-37728-d-15 (# 49)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9208	149	163433 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314088.DAT

Sample name :180-37728-d-15 Analysed :10/23/2014 13:40

# Eager 300 Report

Page: 1 Sample: 180-37728-d-15 (A102314088)

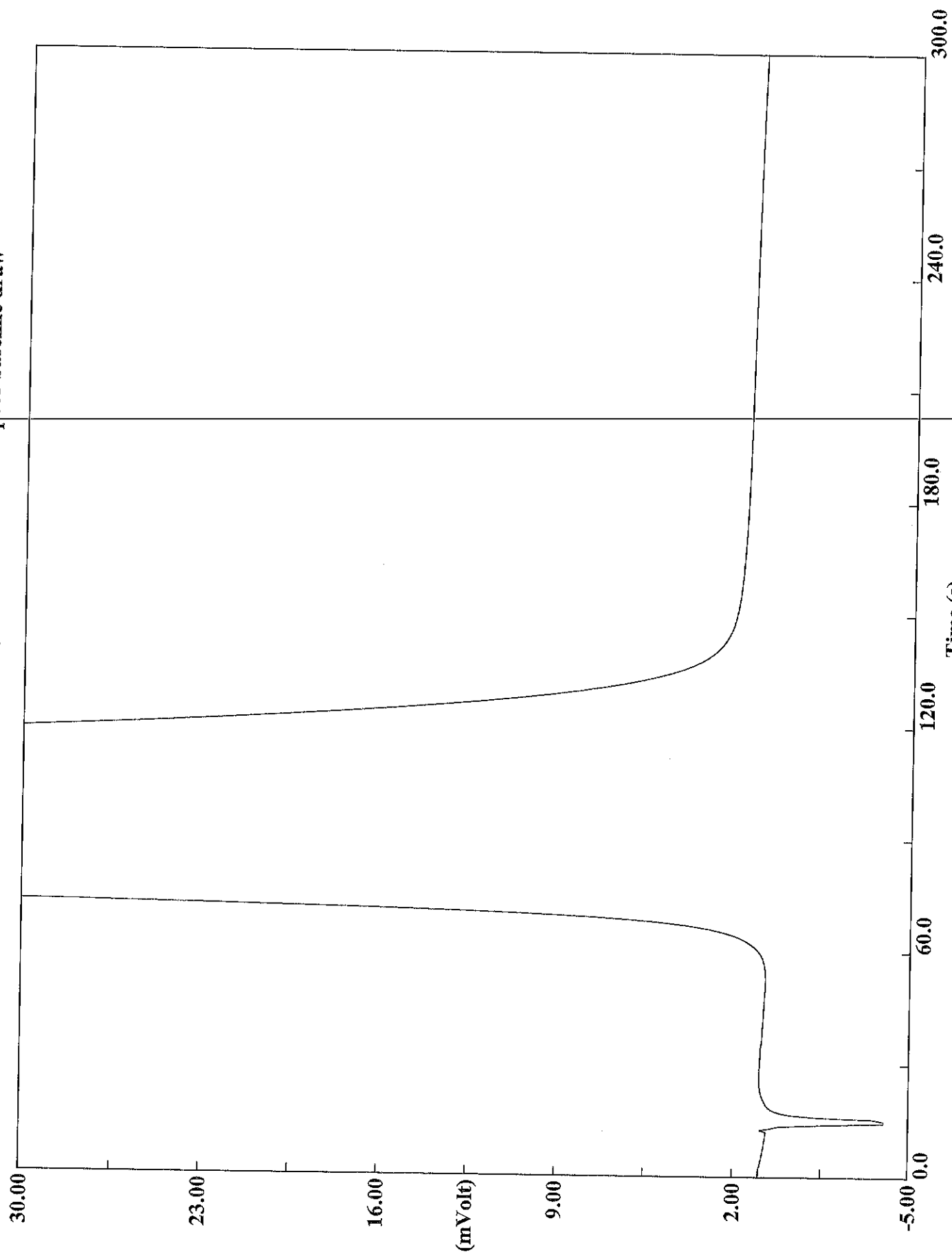
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314088  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:40 Printed : 10/24/2014 03:59  
Sample ID : 180-37728-d-15 (# 50)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.1274	149	204482 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314089.DAT  
Sample name :rinse Analysed :10/23/2014 13:45

# Eager 300 Report

Page: 1 Sample: rinse (A102314089)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314089  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:45 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 51)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

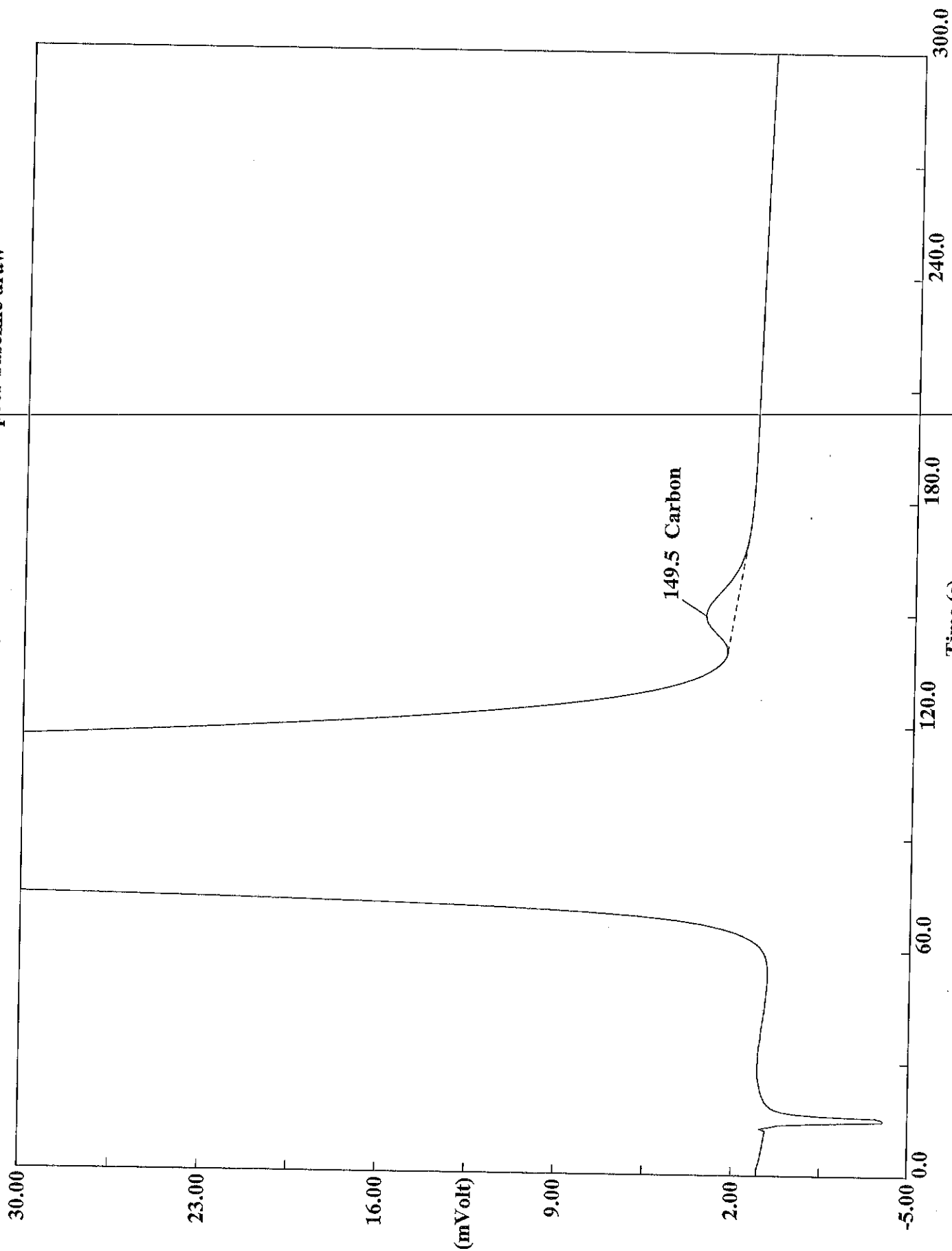
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314090.DAT

Sample name : 180-37728-d-16 Analysed : 10/23/2014 13:50

# Eager 300 Report

Page: 1 Sample: 180-37728-d-16 (A102314090)

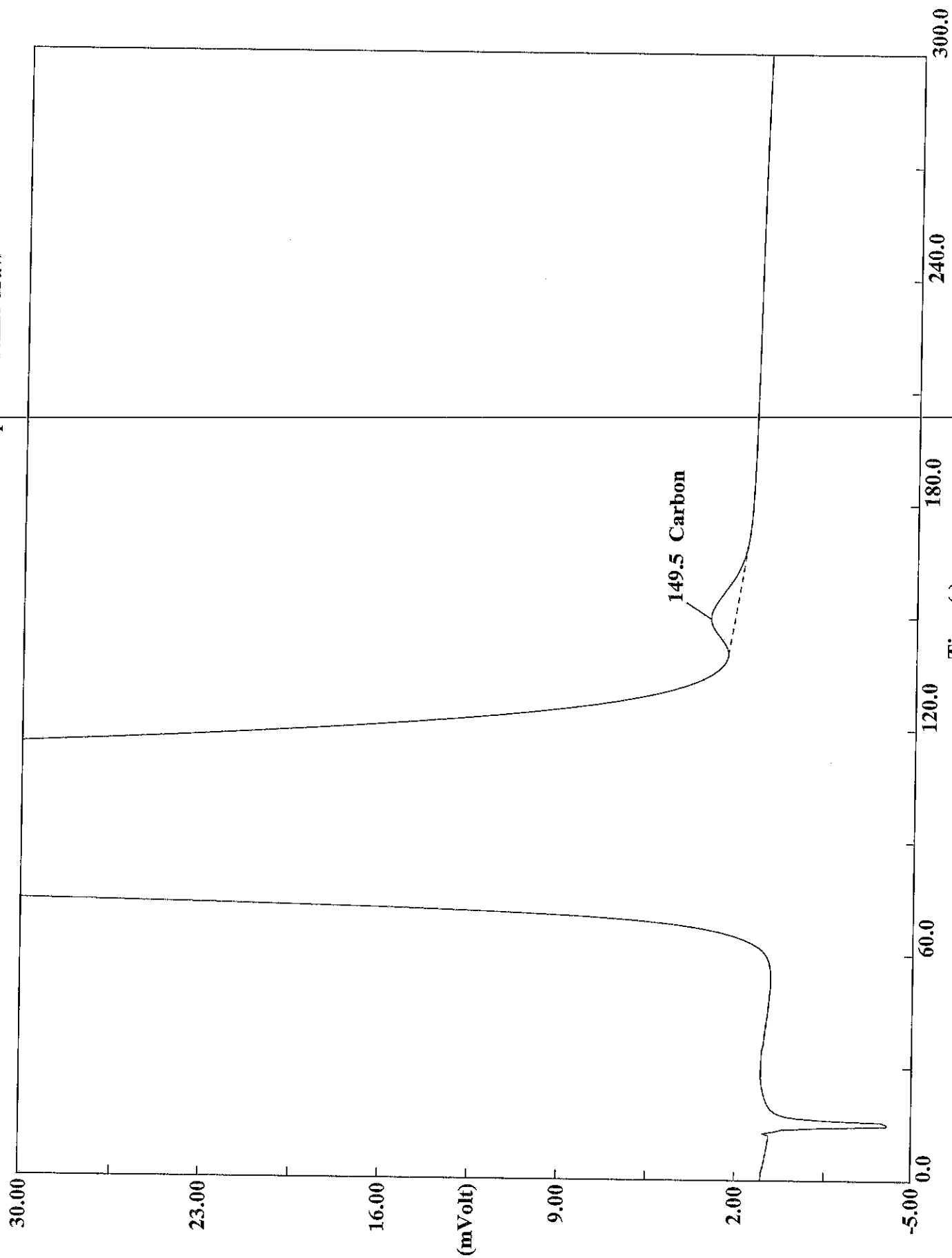
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314090  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:50 Printed : 10/24/2014 03:59  
Sample ID : 180-37728-d-16 (# 52)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 7.1

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3517	150	144029 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314091.DAT

Sample name :180-37728-d-16 Analysed :10/23/2014 13:56

# Eager 300 Report

Page: 1 Sample: 180-37728-d-16 (A102314091)

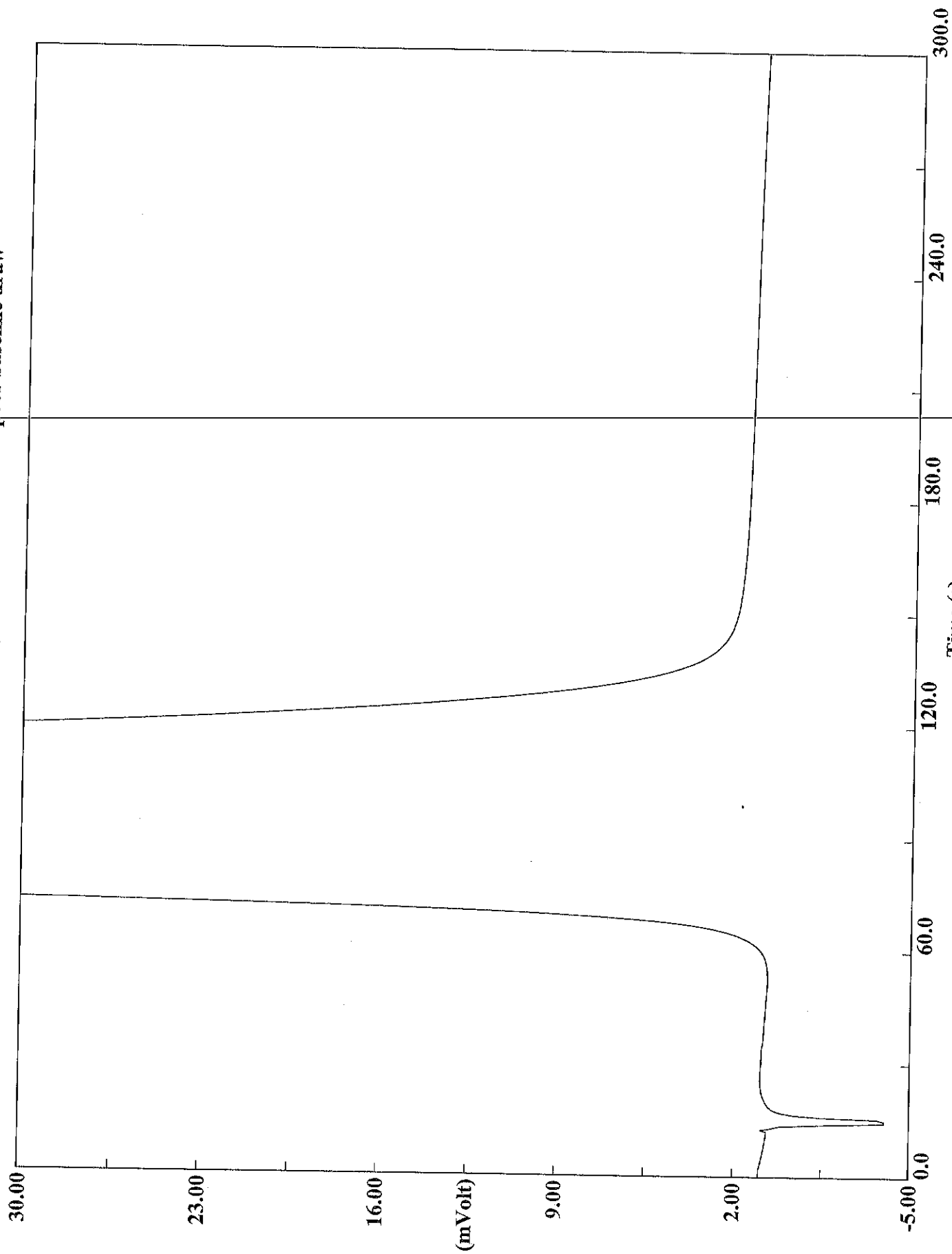
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314091  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 13:56 Printed : 10/24/2014 03:59  
Sample ID : 180-37728-d-16 (# 53)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 6.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3458	150	125710 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314092.DAT  
Sample name :rinse Analysed :10/23/2014 14:01

# Eager 300 Report

Page: 1 Sample: rinse (A102314092)

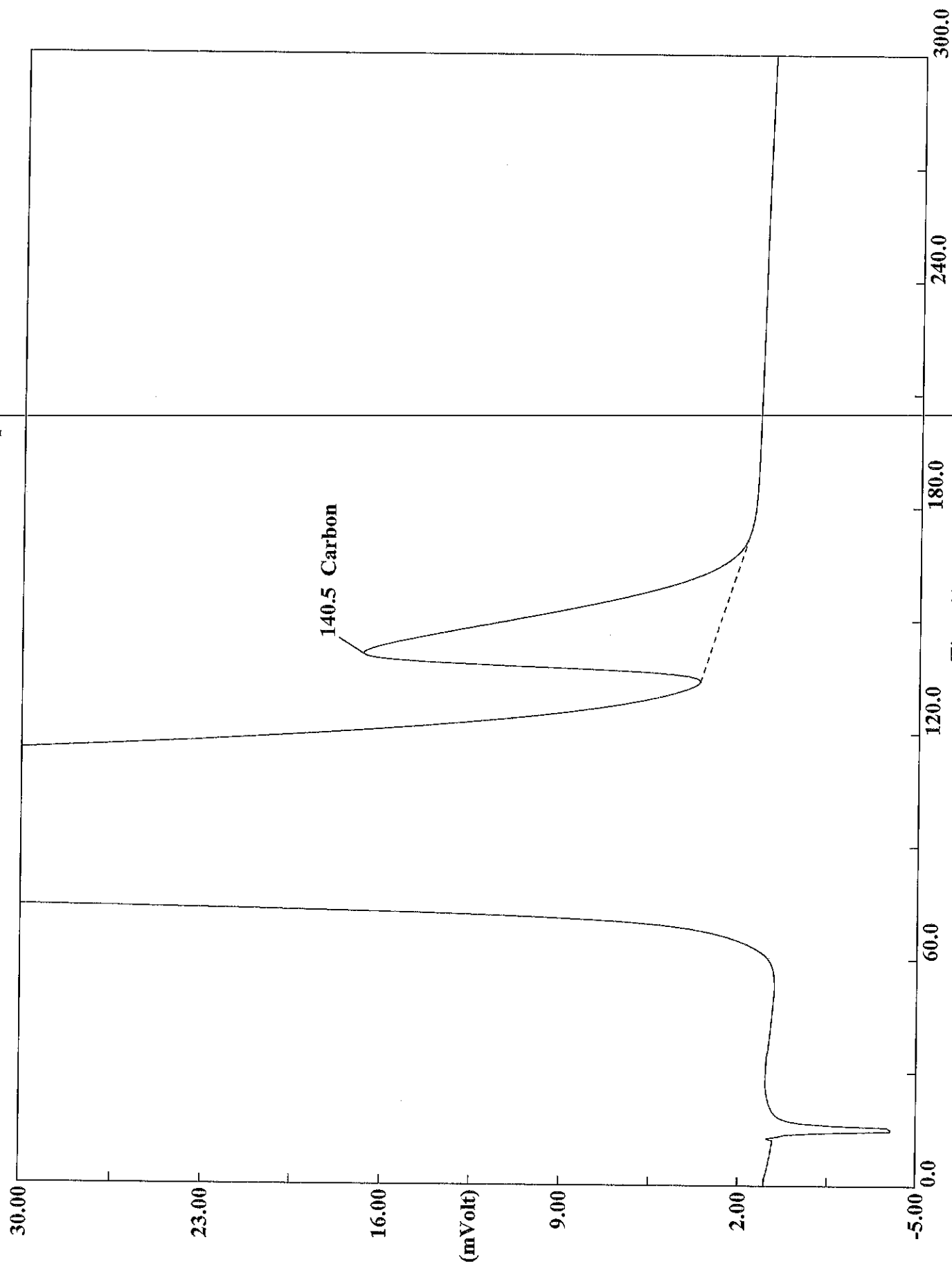
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314092  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:01 Printed : 10/24/2014 03:59  
Sample ID : rinse (# 54)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Filename C:\data\January\A102314093.DAT  
Sample name :ccv Analysed :10/23/2014 14:06

# Eager 300 Report

Page: 1 Sample: ccv (A102314093)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314093  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:06 Printed : 10/24/2014 03:59  
Sample ID : ccv (# 55)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

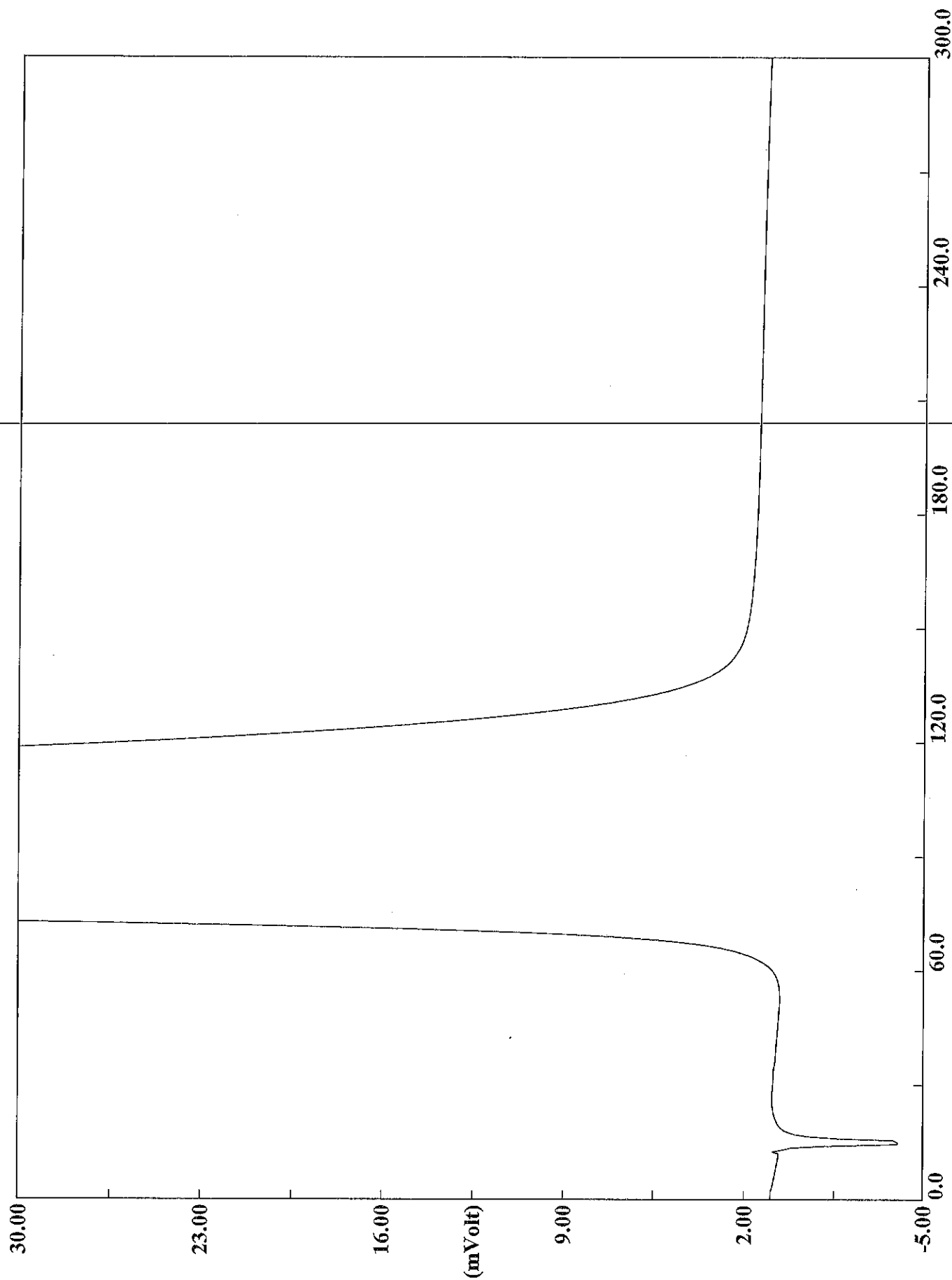
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9697	141	2027262	mi	1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314094.DAT  
Sample name :ccb Analysed :10/23/2014 14:11

# Eager 300 Report

Page: 1 Sample: ccb (A102314094)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314094  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:11 Printed : 10/24/2014 03:59  
Sample ID : ccb (# 56)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

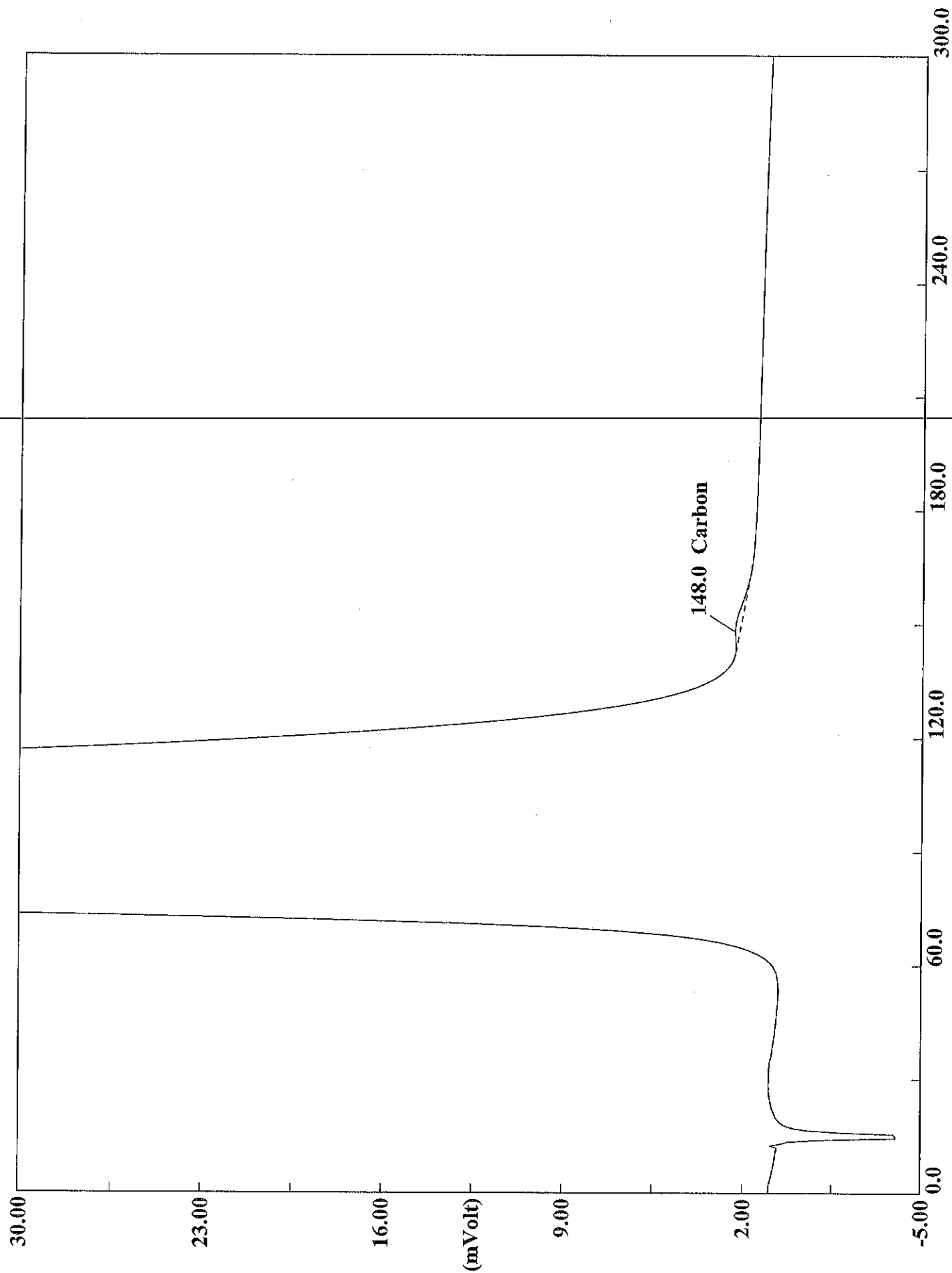
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314095.DAT

Sample name :180-37750-b-1 Analysed :10/23/2014 14:17

# Eager 300 Report

Page: 1 Sample: 180-37750-b-1 (A102314095)

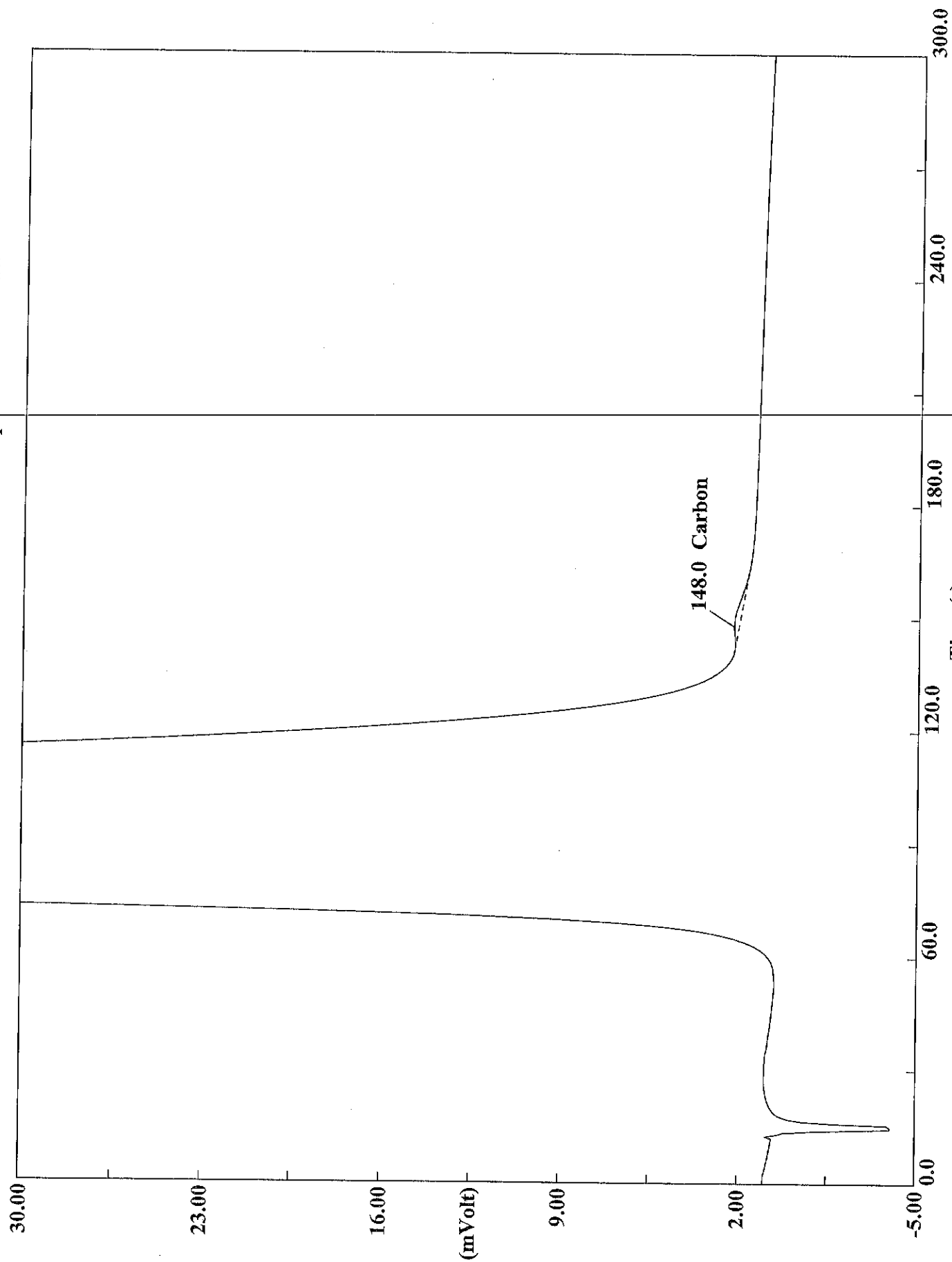
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314095  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:17 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-1 (# 57)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 21.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1772	148	18886 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314096.DAT  
Sample name :180-37750-b-1 Analysed :10/23/2014 14:22

# Eager 300 Report

Page: 1 Sample: 180-37750-b-1 (A102314096)

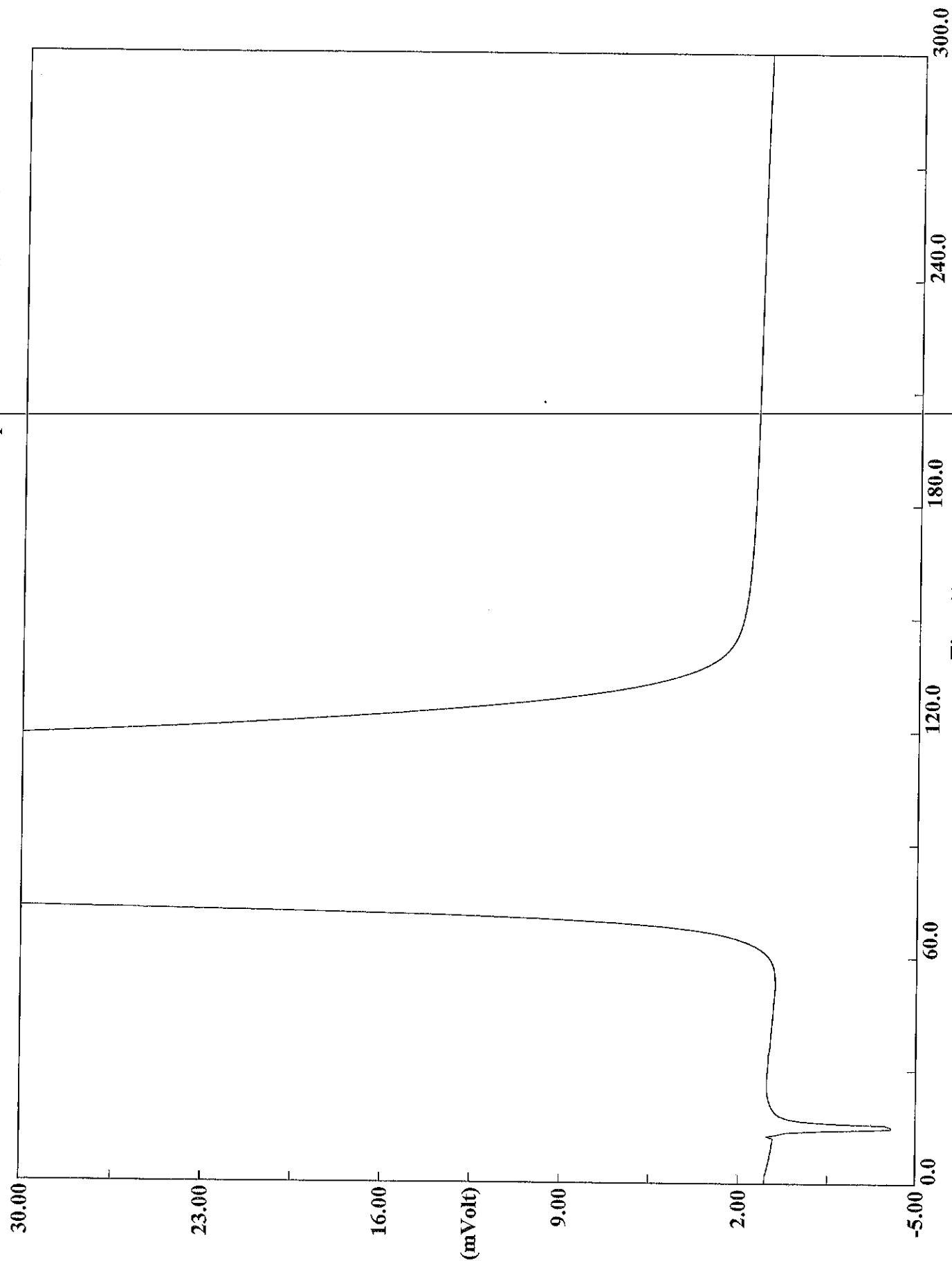
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314096  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:22 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-1 (# 58)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.3

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1933	148	21755 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314097.DAT  
Sample name :rinse Analysed :10/23/2014 14:27

# Eager 300 Report

Page: 1 Sample: rinse (A102314097)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314097  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:27 Printed : 10/24/2014 04:10  
Sample ID : rinse (# 59)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

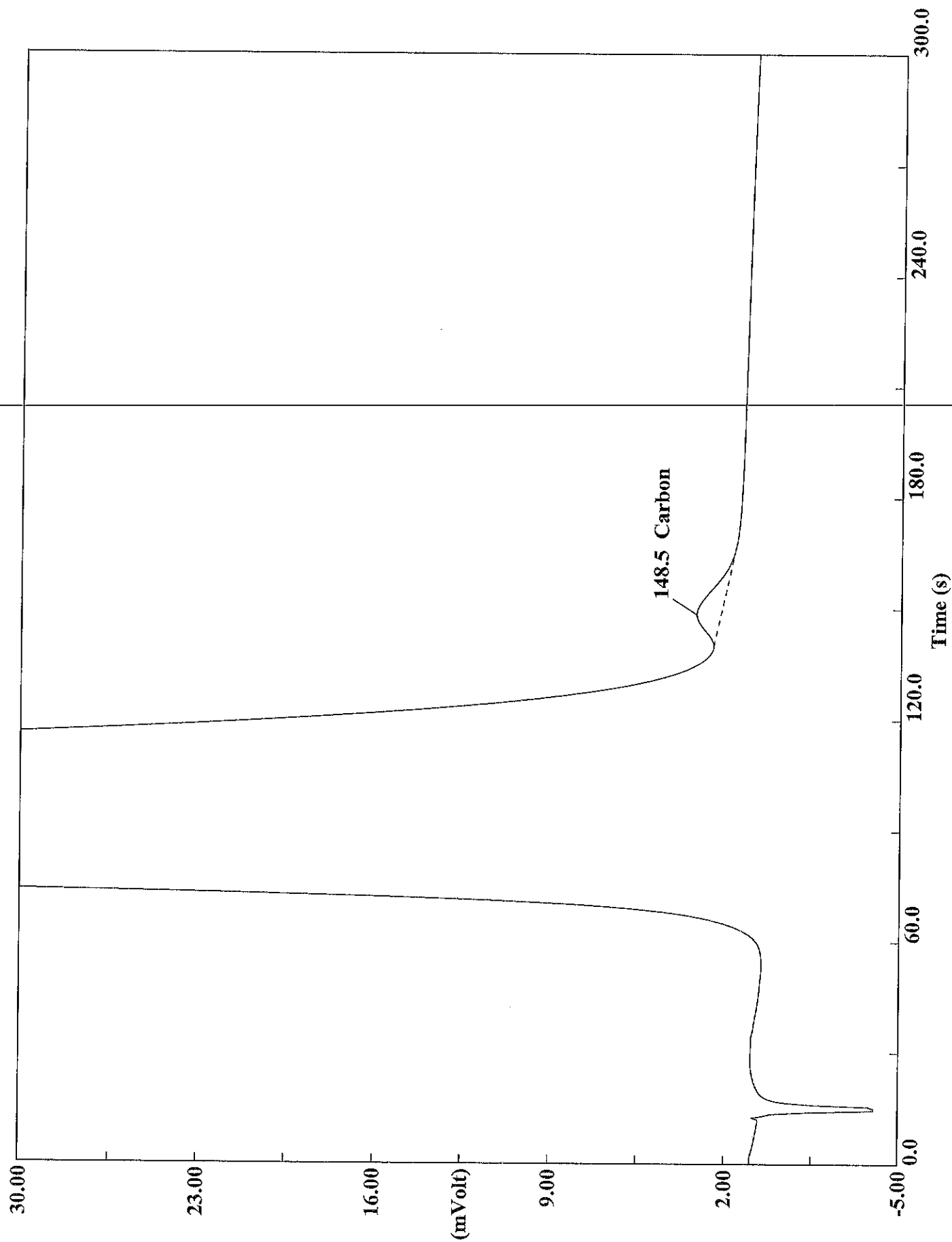
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314098.DAT

Sample name :180-37750-b-2 Analysed :10/23/2014 14:32

# Eager 300 Report

Page: 1 Sample: 180-37750-b-2 (A102314098)

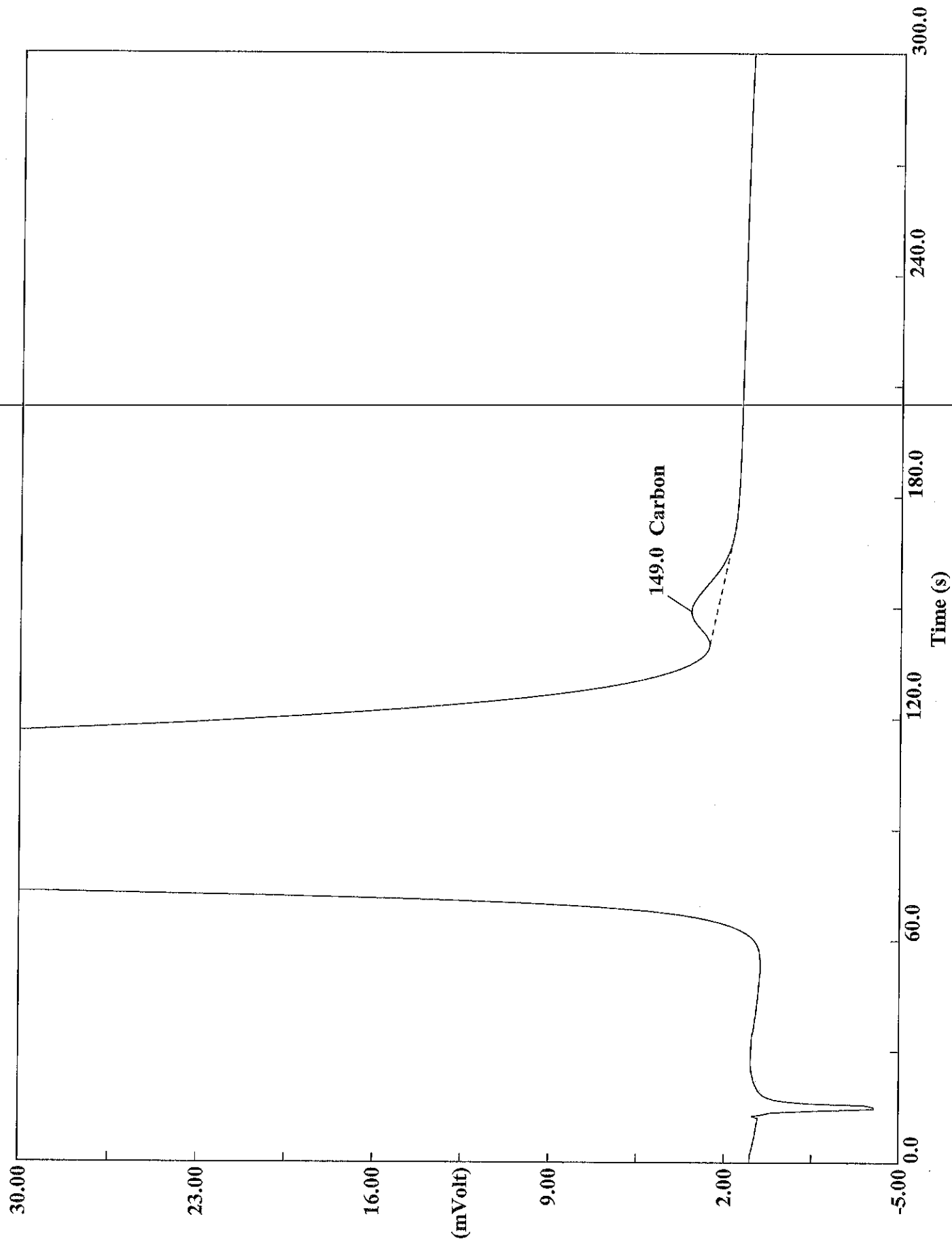
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314098  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:32 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-2 (# 60)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 5.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4387	149	117021 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314099.DAT  
Sample name :180-37750-b-2 Analysed :10/23/2014 14:38

# Eager 300 Report

Page: 1 Sample: 180-37750-b-2 (A102314099)

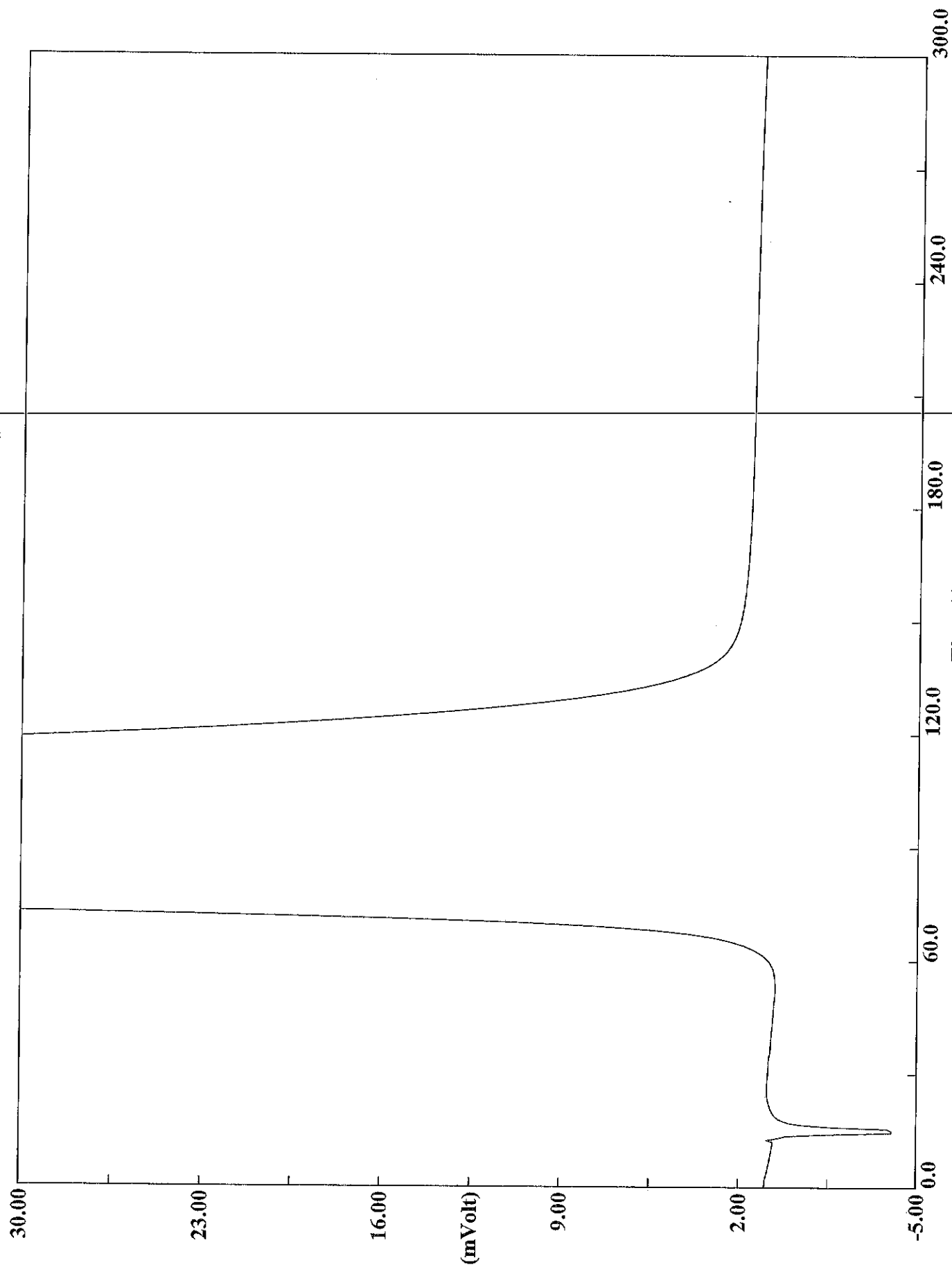
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314099  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:38 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-2 (# 61)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 6.3

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4440	149	133244 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314100.DAT  
Sample name :rinse Analysed :10/23/2014 14:43

# Eager 300 Report

Page: 1 Sample: rinse (A102314100)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314100  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:43 Printed : 10/24/2014 04:10  
Sample ID : rinse (# 62)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

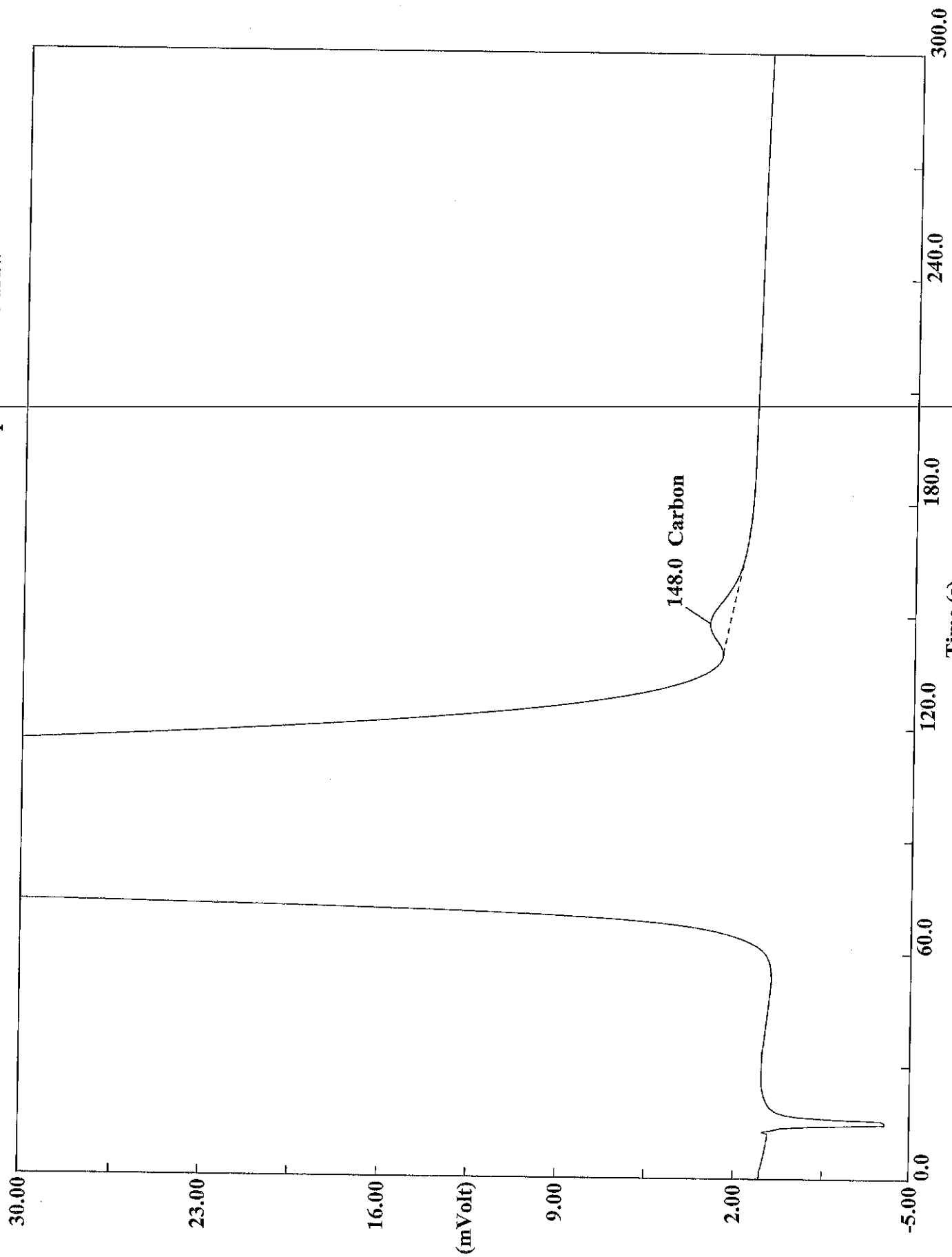
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314101.DAT

Sample name :180-37750-b-3 Analysed :10/23/2014 14:48

# Eager 300 Report

Page: 1 Sample: 180-37750-b-3 (A102314101)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314101  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:48 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-3 (# 63)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 4.9

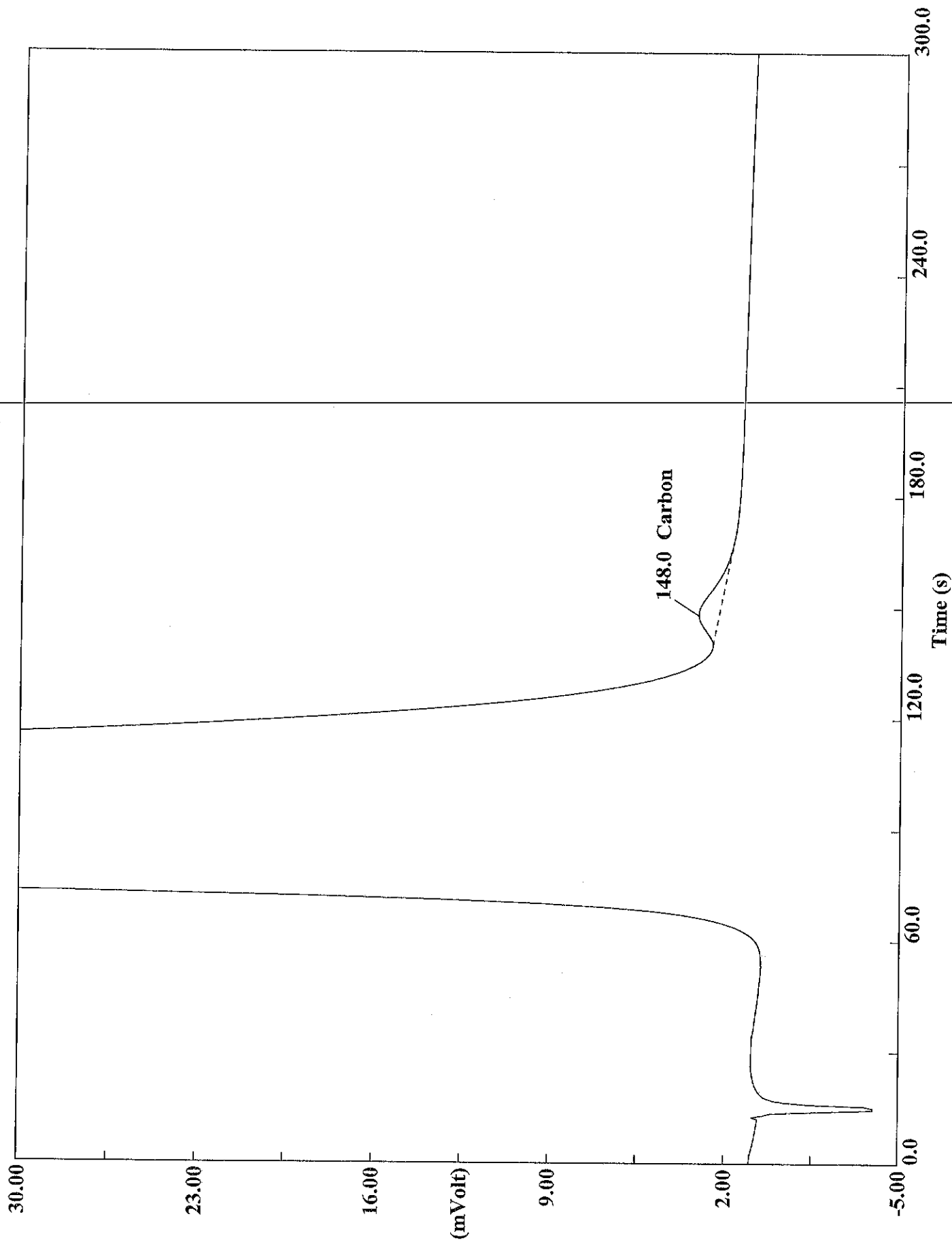
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4371	148	88946 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314102.DAT

Sample name :180-37750-b-3 Analysed :10/23/2014 14:53

# Eager 300 Report

Page: 1 Sample: 180-37750-b-3 (A102314102)

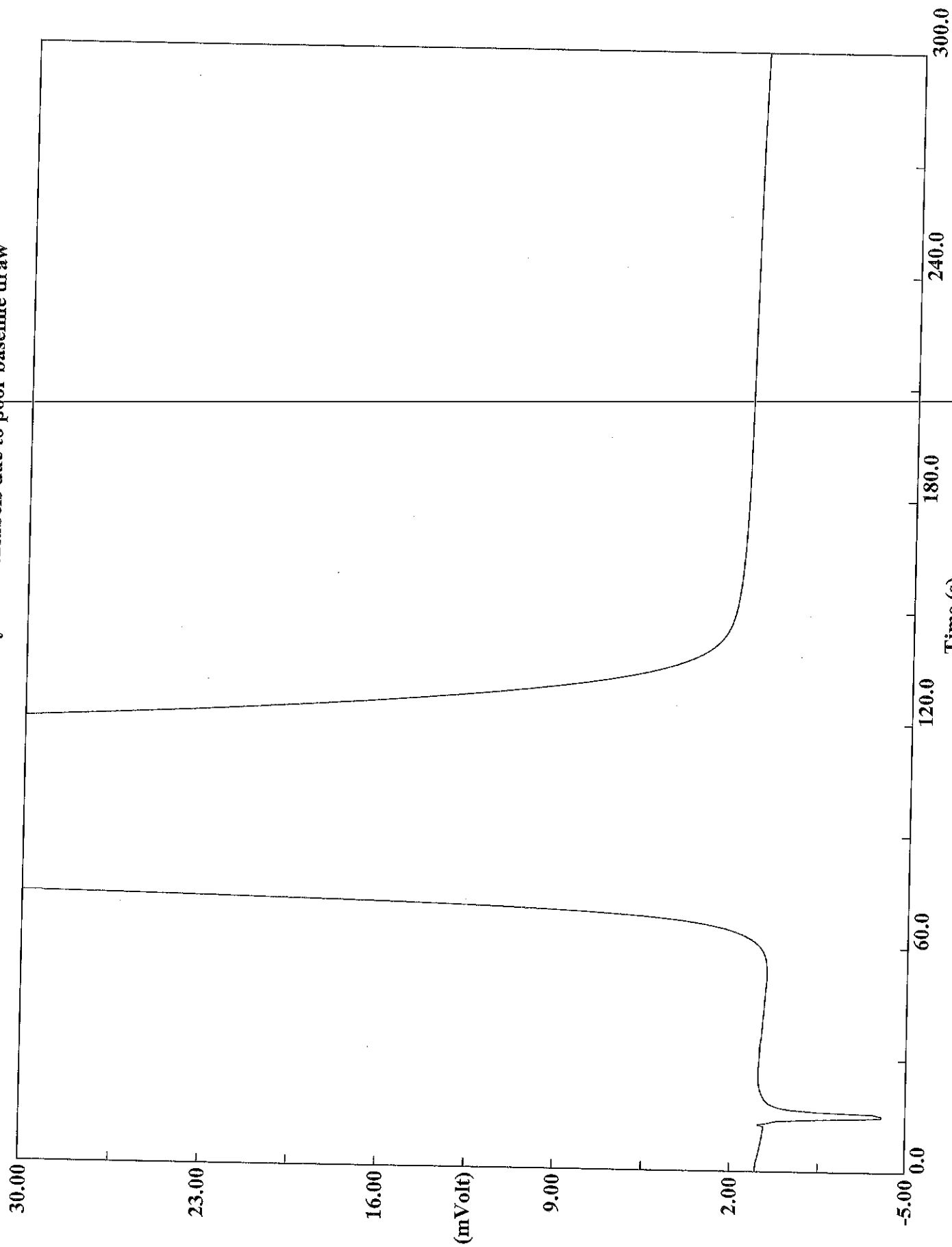
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314102  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:53 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-3 (# 64)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 5.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3604	148	98440 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314103.DAT  
Sample name :rinse Analysed :10/23/2014 14:59

# Eager 300 Report

Page: 1 Sample: rinse (A102314103)

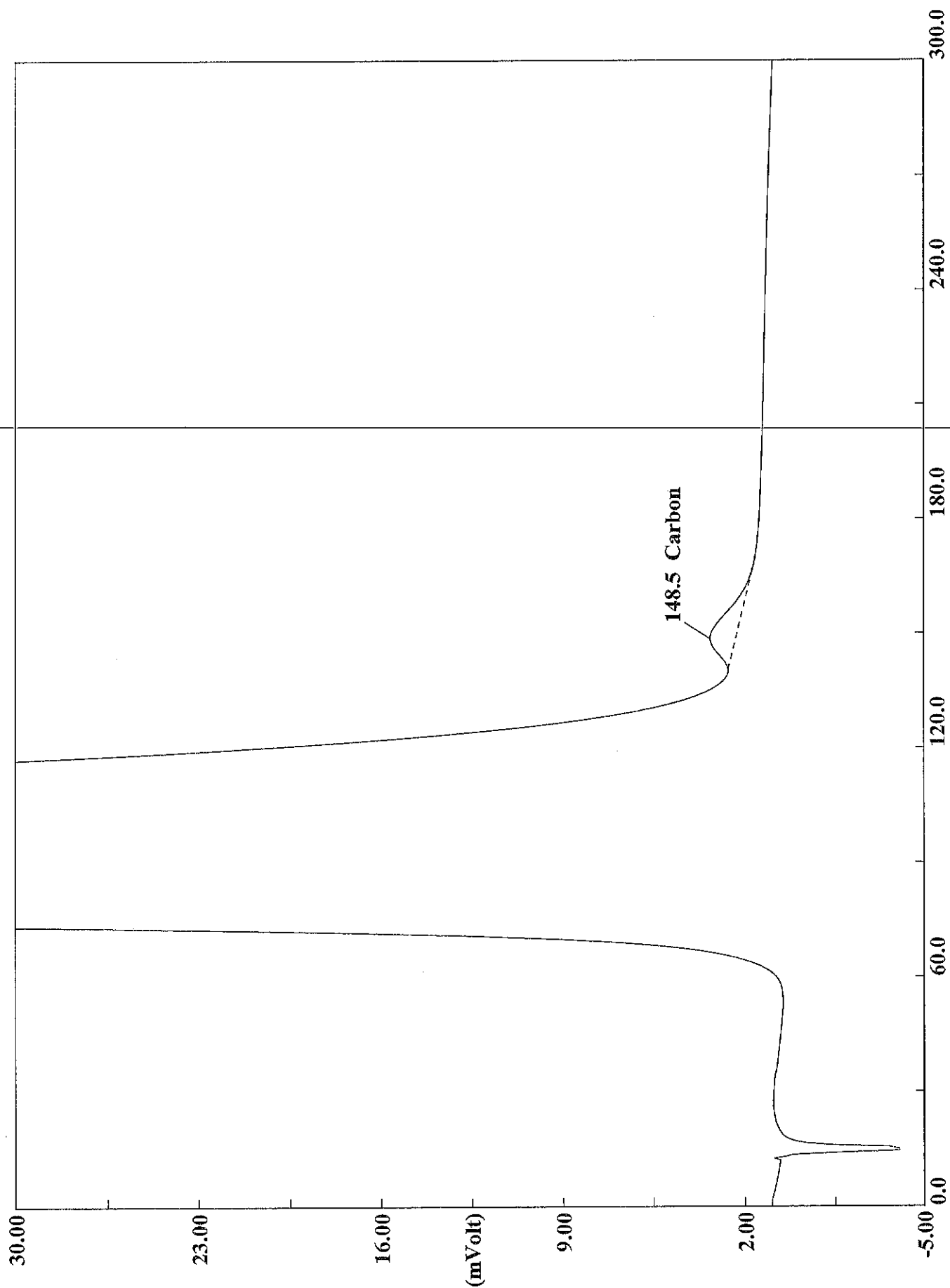
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314103  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 14:59 Printed : 10/24/2014 04:10  
Sample ID : rinse (# 65)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Filename C:\data\January\A102314104.DAT  
Sample name :180-37750-d-5 Analysed :10/23/2014 15:04

# Eager 300 Report

Page: 1 Sample: 180-37750-d-5 (A102314104)

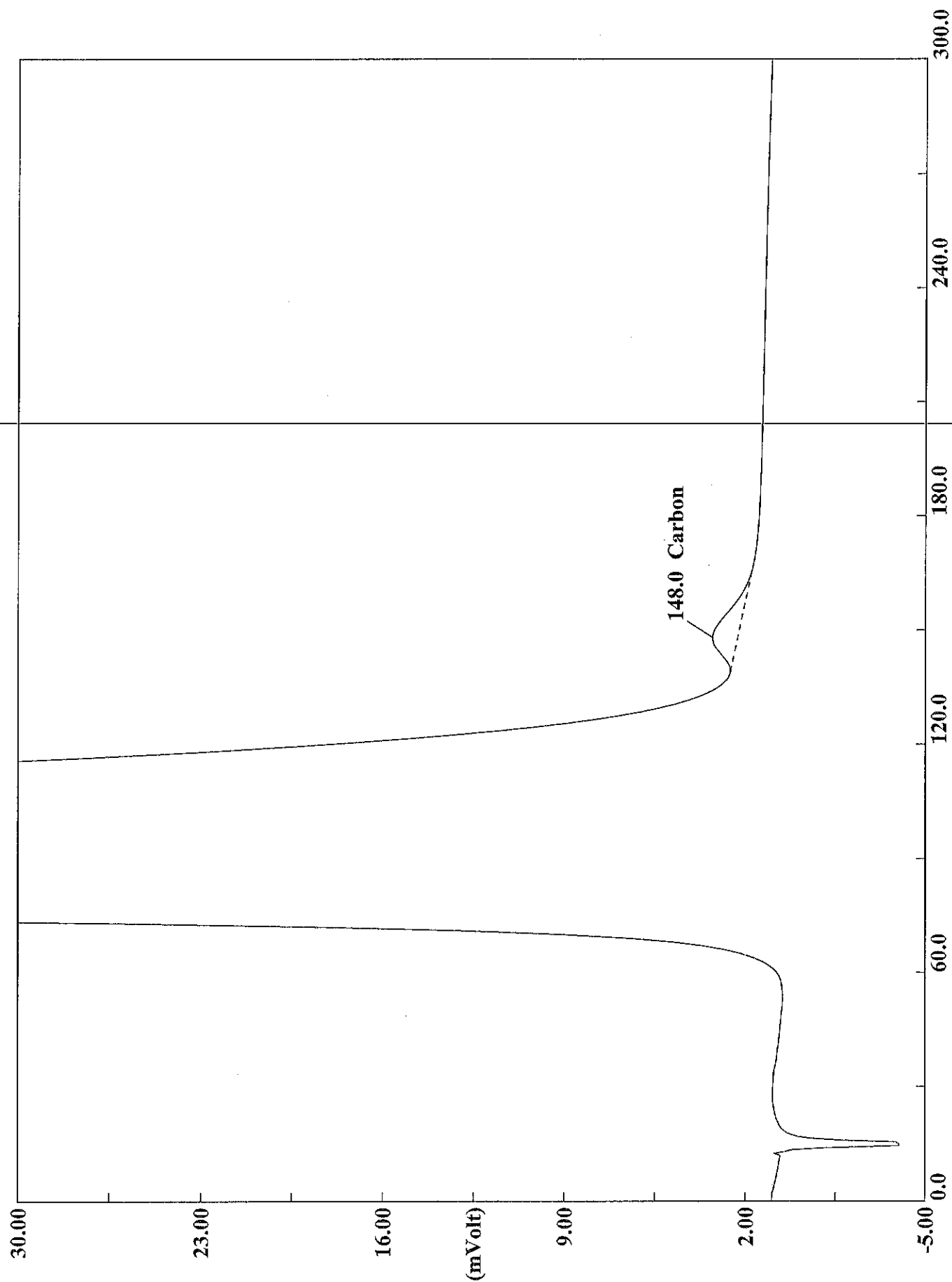
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314104  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:04 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-d-5 (# 66)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 5.9

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4223	149	118039 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314105.DAT

Sample name :180-37750-d-5 Analysed :10/23/2014 15:09

# Eager 300 Report

Page: 1 Sample: 180-37750-d-5 (A102314105)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314105  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:09 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-d-5 (# 67)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 5.3

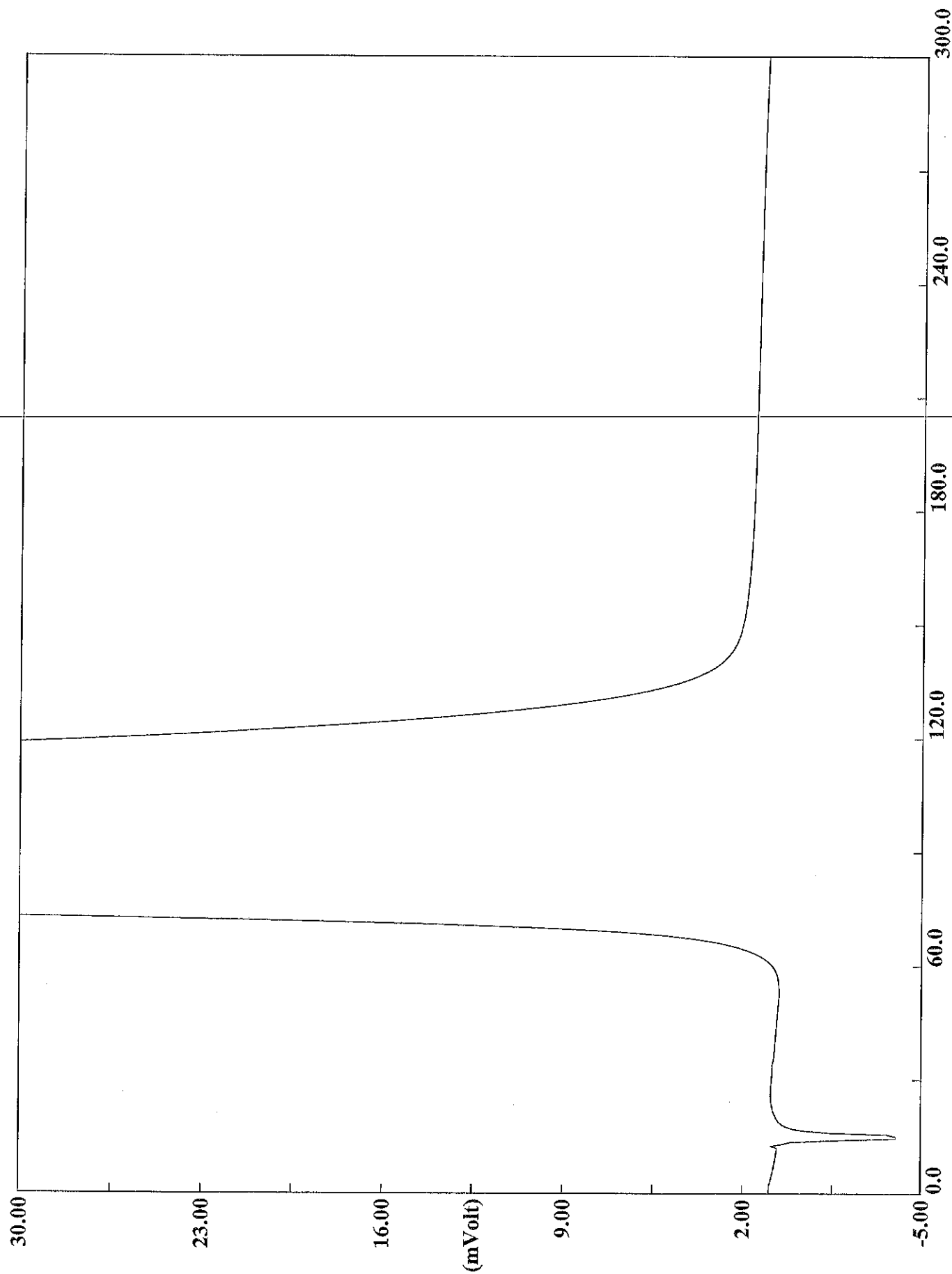
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.6013	148	120095 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314106.DAT  
Sample name :rinse Analysed :10/23/2014 15:14

# Eager 300 Report

Page: 1 Sample: rinse (A102314106)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314106  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:14 Printed : 10/24/2014 04:10  
Sample ID : rinse (# 68)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

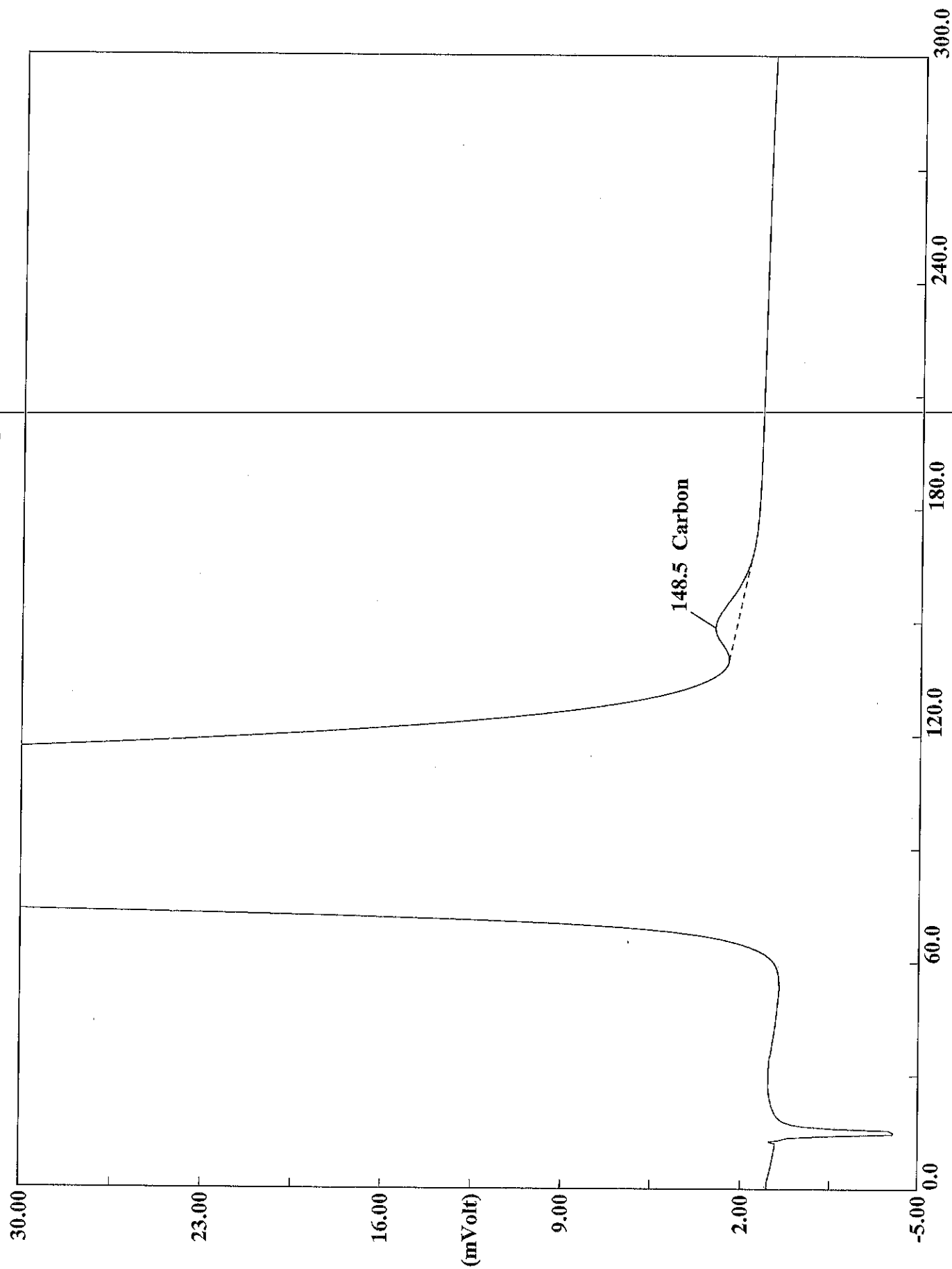
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314107.DAT

Sample name :180-37750-b-6 Analysed :10/23/2014 15:20

# Eager 300 Report

Page: 1 Sample: 180-37750-b-6 (A102314107)

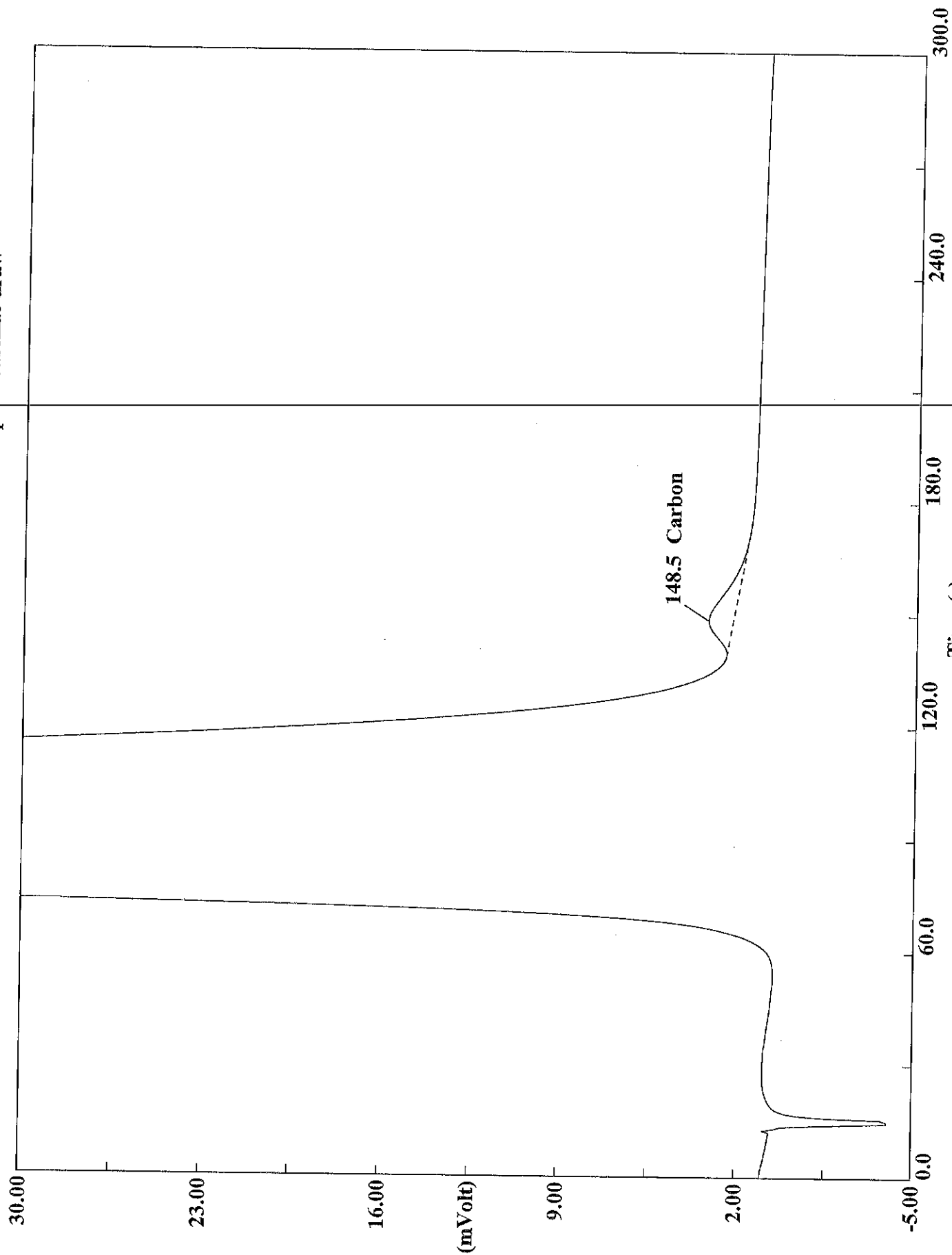
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314107  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 15:20  
Sample ID : 180-37750-b-6 (# 69)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:10  
Sample weight : 5.3

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.4544	149	103310 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314108.DAT

Sample name :180-37750-b-6 Analysed :10/23/2014 15:25

# Eager 300 Report

Page: 1 Sample: 180-37750-b-6 (A102314108)

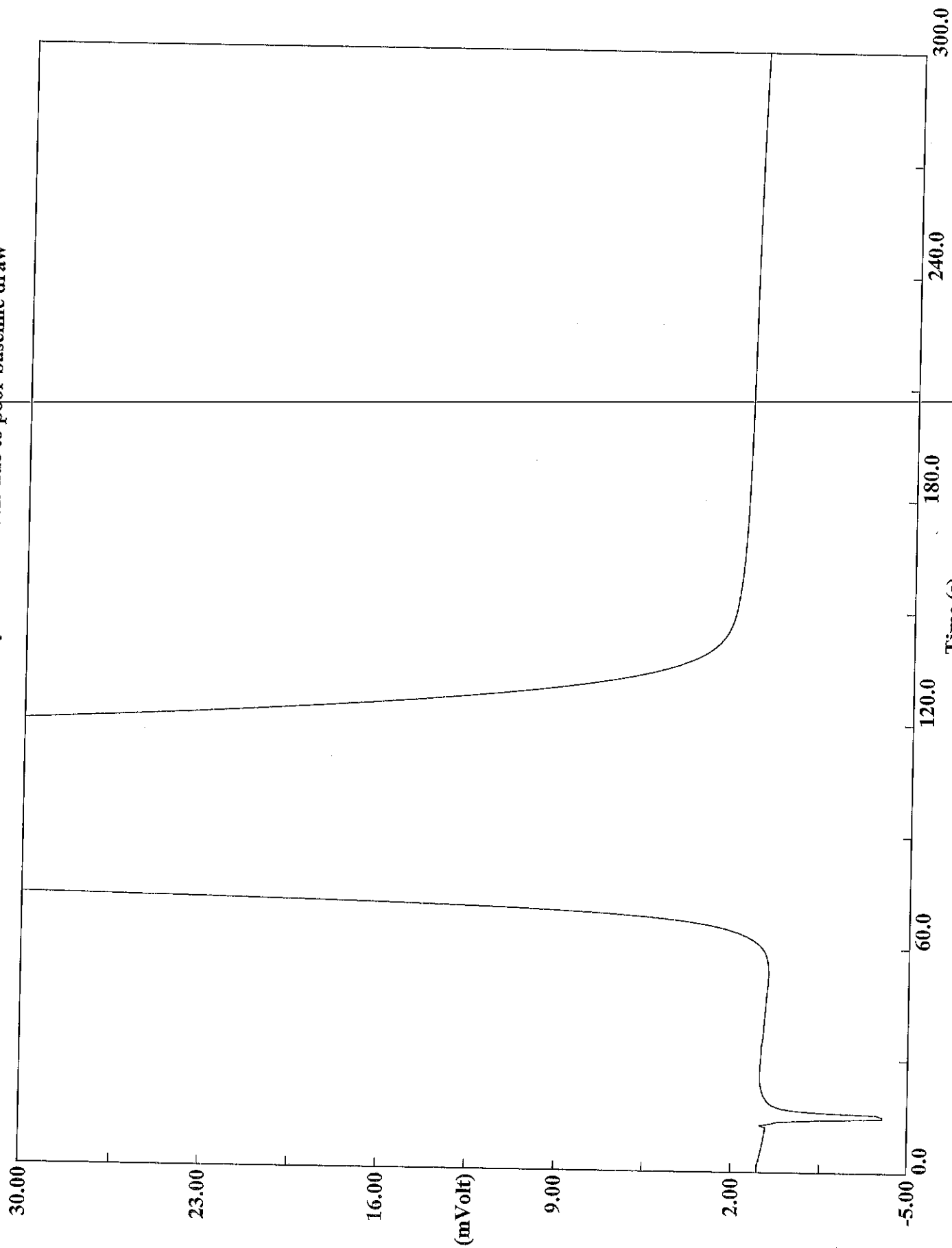
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314108  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 15:25  
Sample ID : 180-37750-b-6 (# 70)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:10  
Sample weight : 5.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.5388	149	129534 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314109.DAT  
Sample name :rinse Analysed :10/23/2014 15:30

# Eager 300 Report

Page: 1 Sample: rinse (A102314109)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314109  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 15:30  
Sample ID : rinse (# 71)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:10  
Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

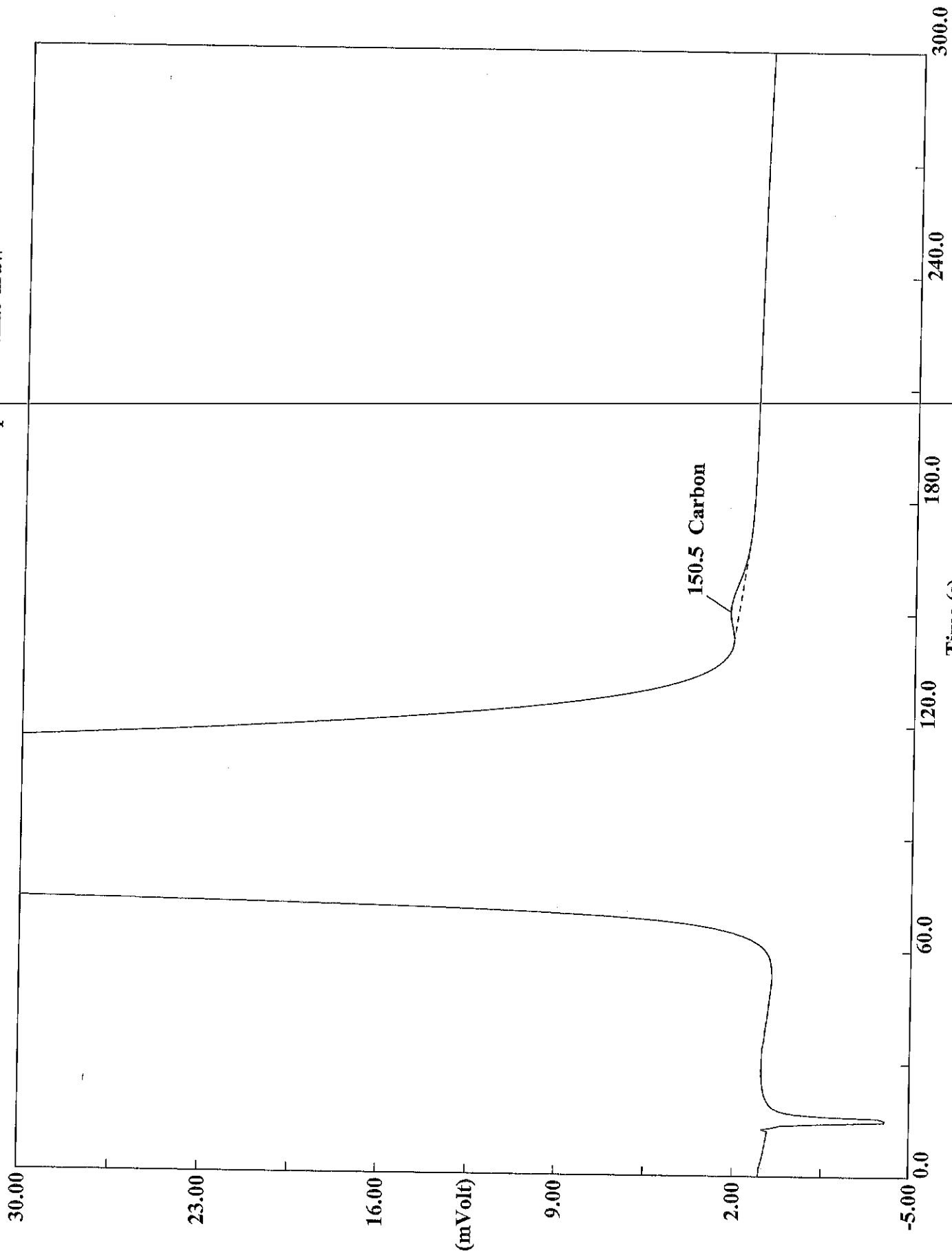
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314110.DAT

Sample name : 180-37750-b-7 Analysed : 10/23/2014 15:36

# Eager 300 Report

Page: 1 Sample: 180-37750-b-7 (A102314110)

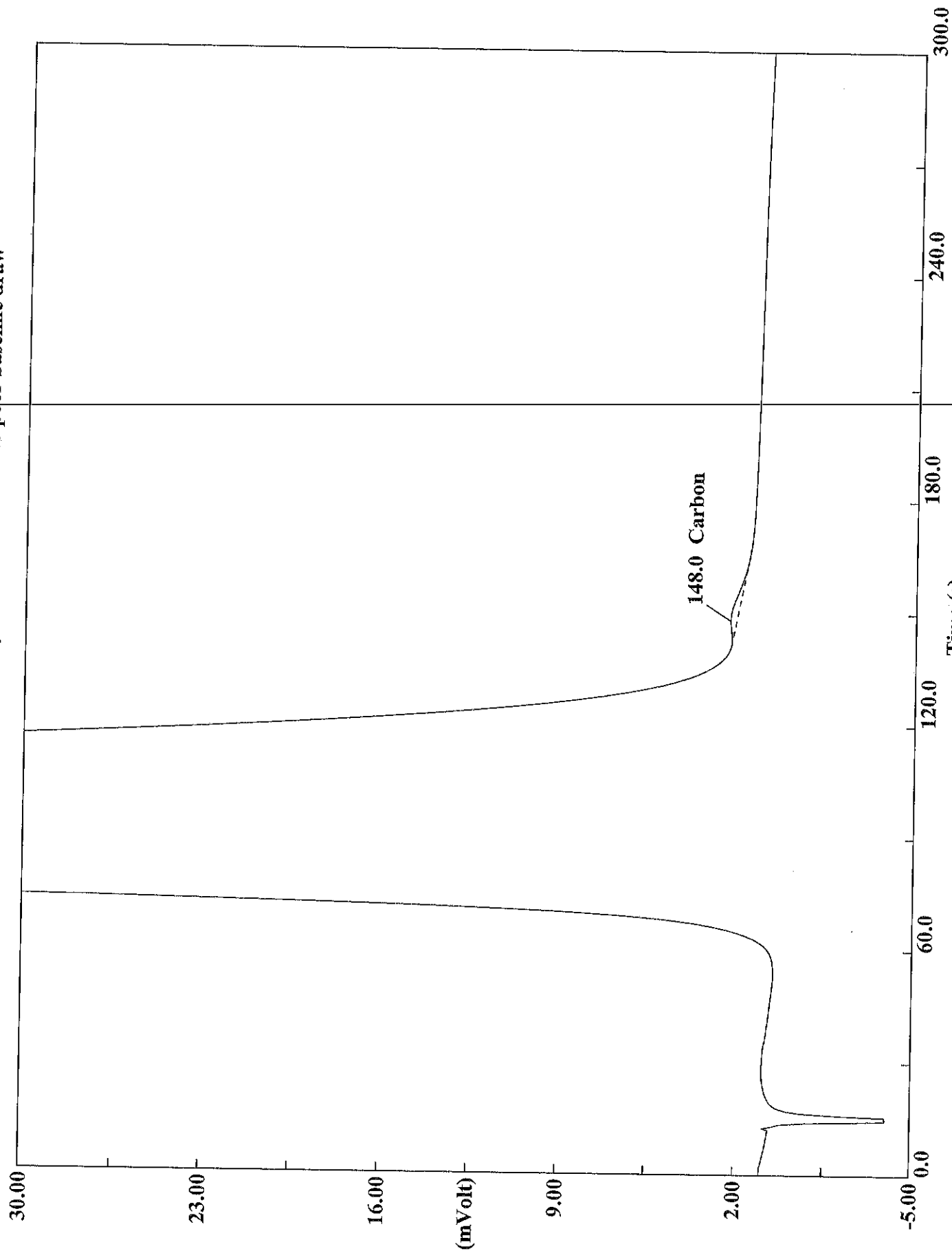
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314110  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:36 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-7 (# 72)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 21.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.2224	151	39747 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A10231411.DAT

Sample name :180-37750-b-7 Analysed :10/23/2014 15:41

# Eager 300 Report

Page: 1 Sample: 180-37750-b-7 (A102314111)

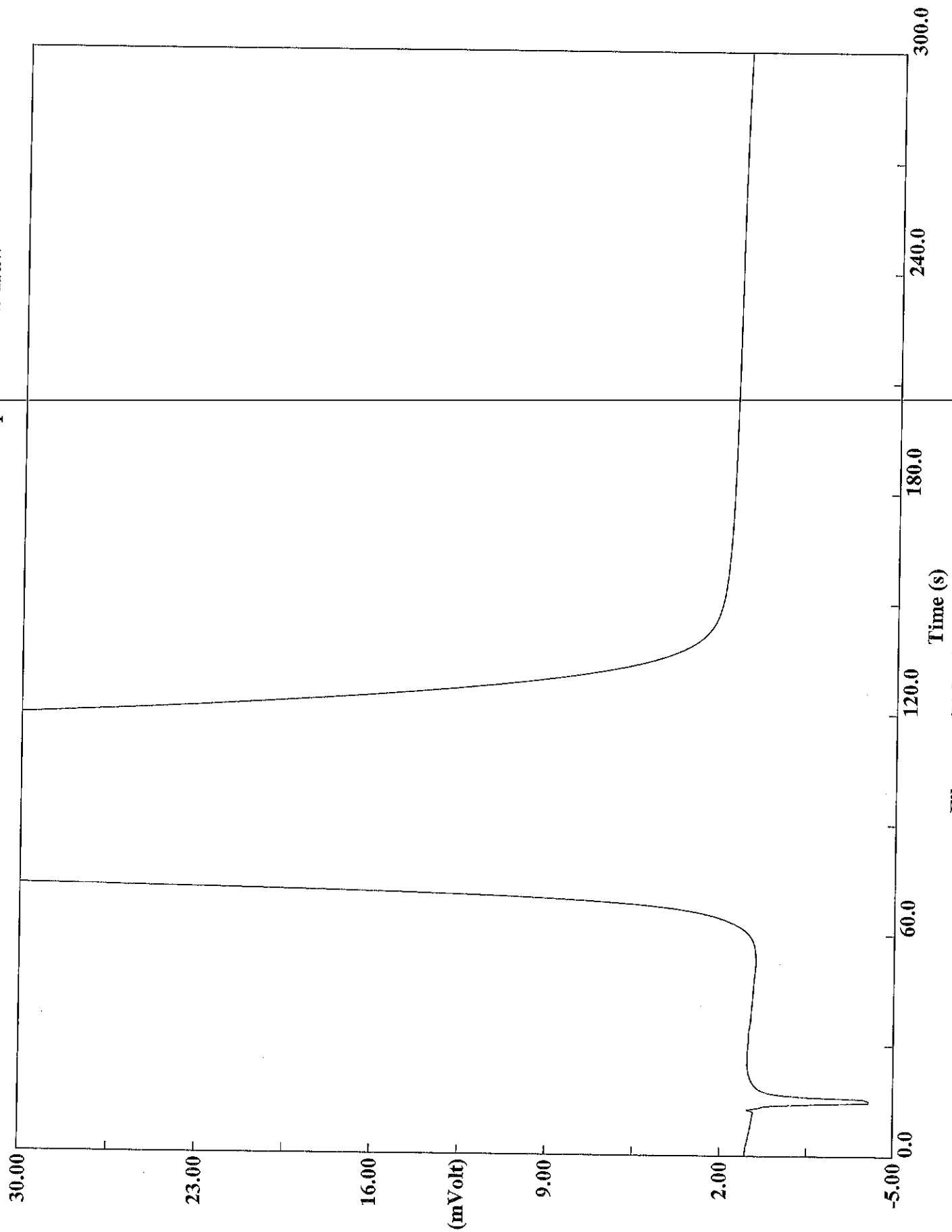
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314111  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:41 Printed : 10/24/2014 04:10  
Sample ID : 180-37750-b-7 (# 73)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1995	148	26600 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314112.DAT  
Sample name :rinse Analysed :10/23/2014 15:46

# Eager 300 Report

Page: 1 Sample: rinse (A102314112)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314112  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:46 Printed : 10/24/2014 04:10  
Sample ID : rinse (# 74)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

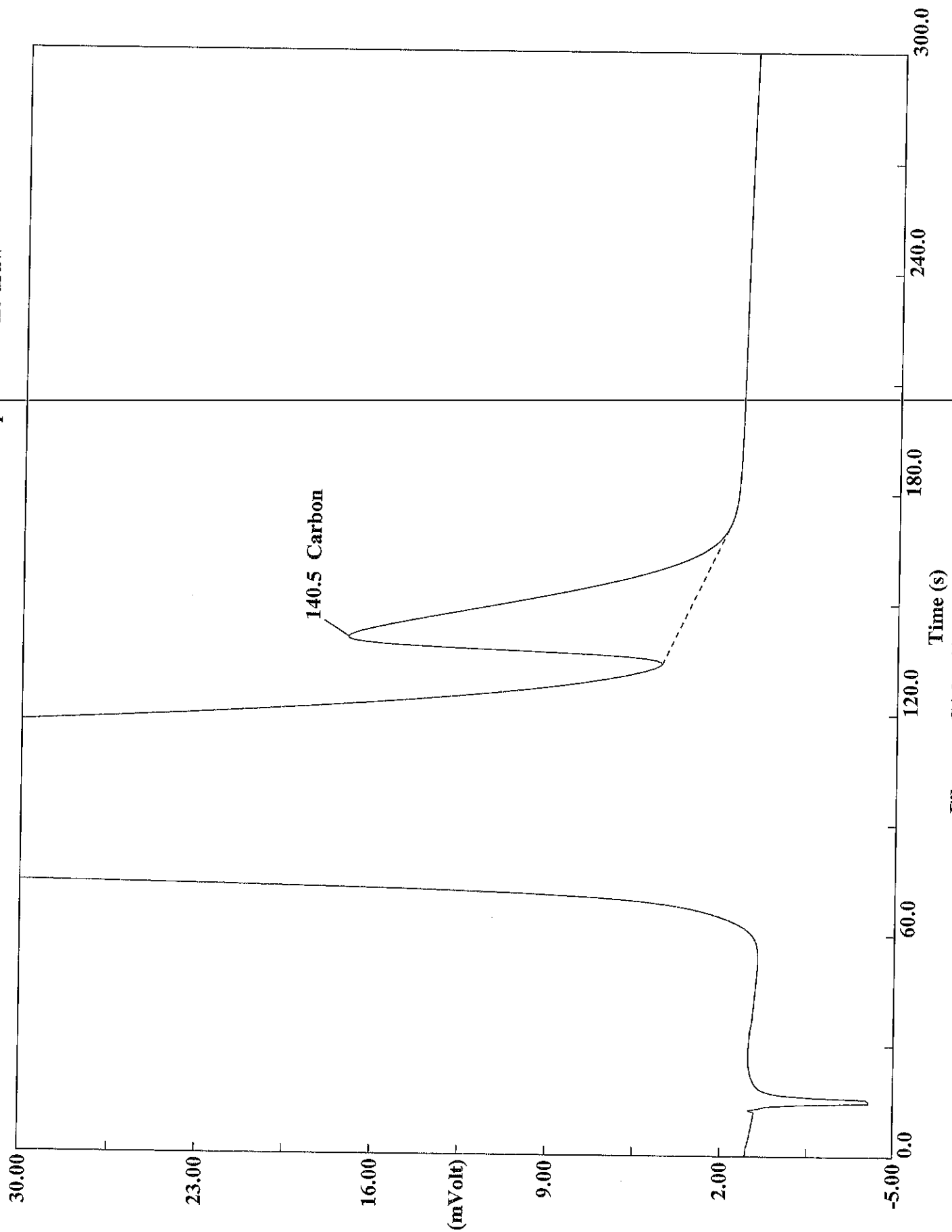
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314113.DAT  
Sample name :ccv Analysed :10/23/2014 15:51

# Eager 300 Report

Page: 1 Sample: ccv (A102314113)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314113  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:51 Printed : 10/24/2014 04:10  
Sample ID : ccv (# 75)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

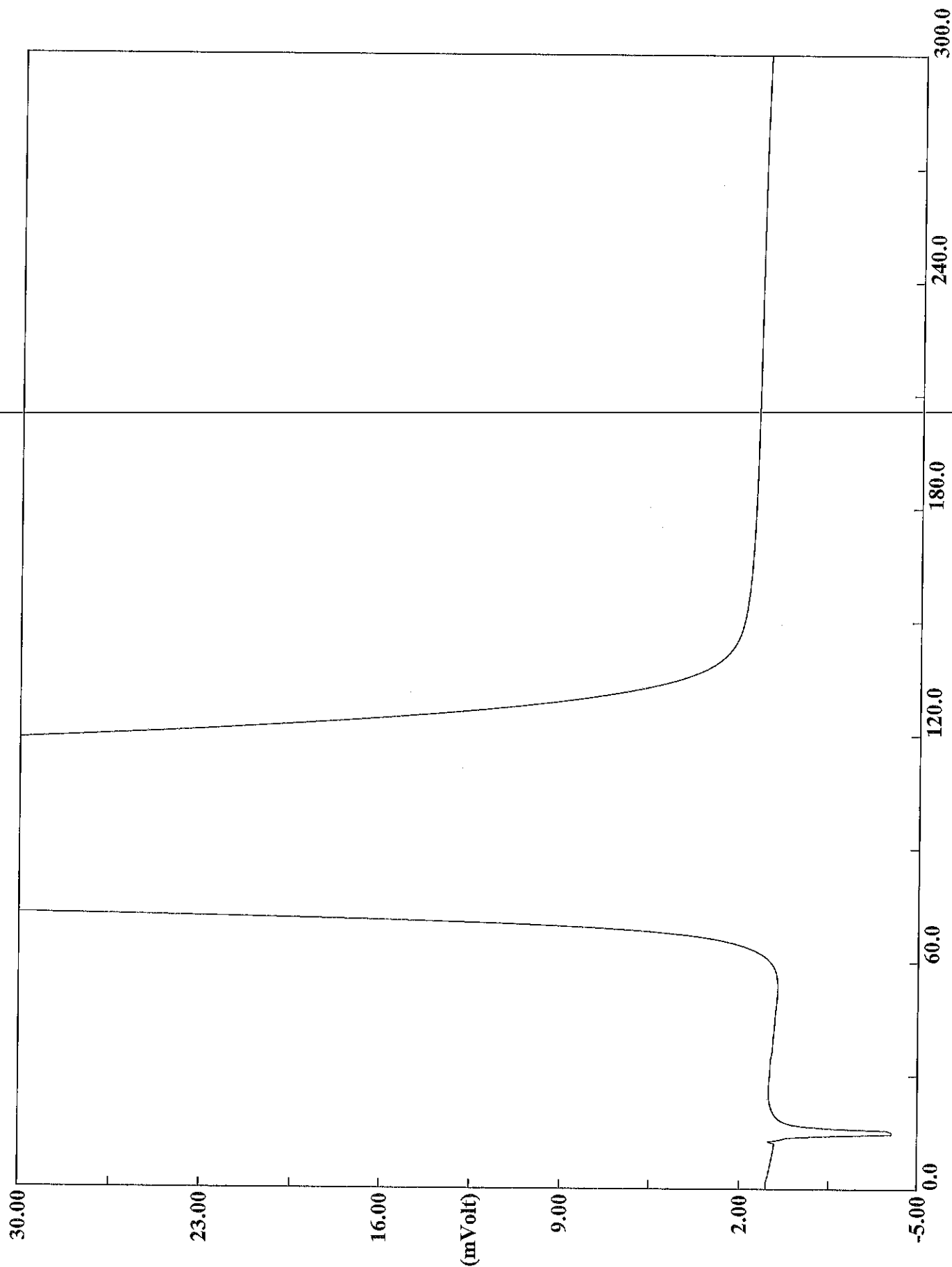
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9176	141	1915107	mi	1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314114.DAT  
Sample name :ccb Analysed :10/23/2014 15:57

# Eager 300 Report

Page: 1 Sample: ccb (A102314114)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314114  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 15:57 Printed : 10/24/2014 04:10  
Sample ID : ccb (# 76)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20

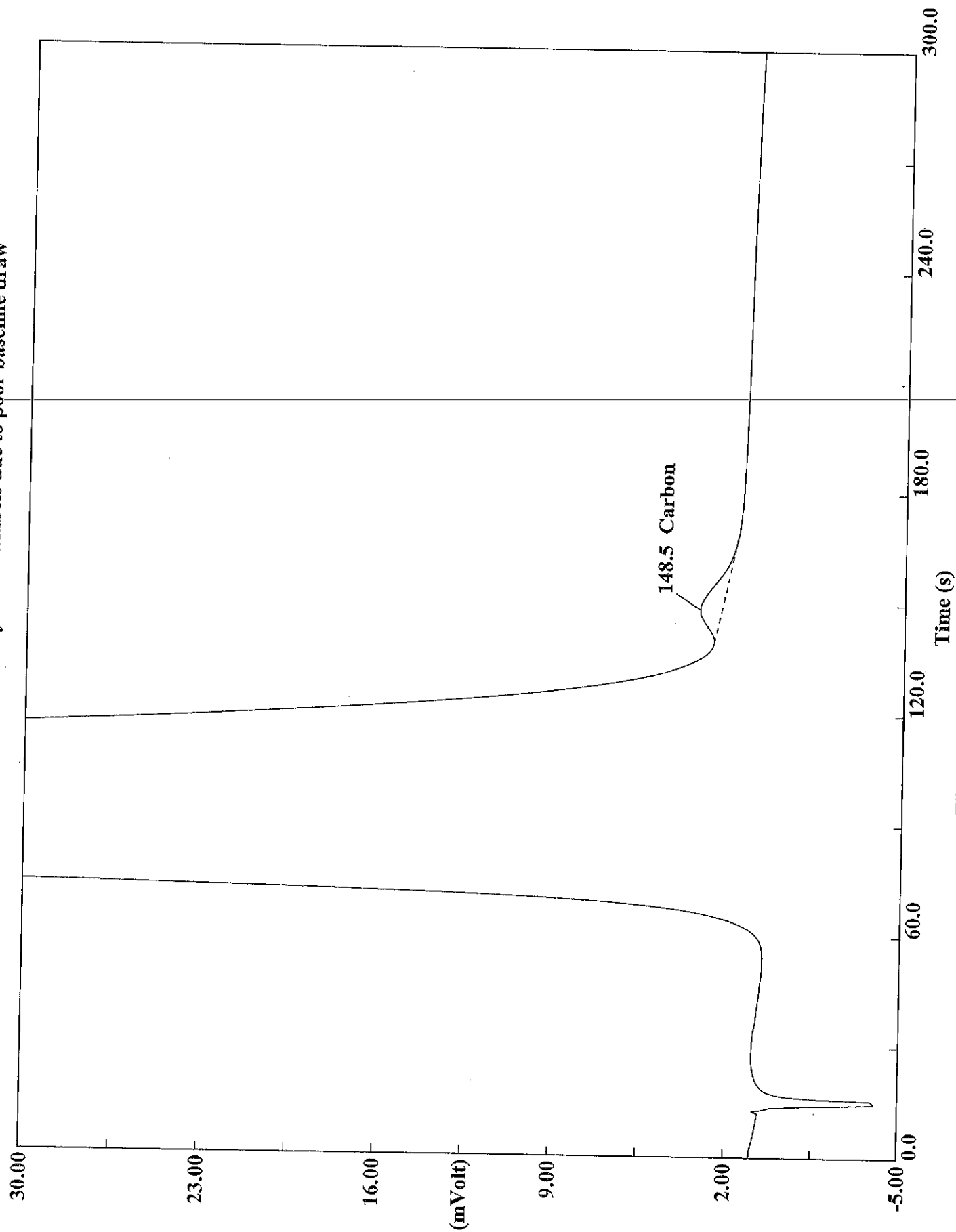
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314115.DAT

Sample name :180-37750-b-8 Analysed :10/23/2014 16:02

# Eager 300 Report

Page: 1 Sample: 180-37750-b-8 (A102314115)

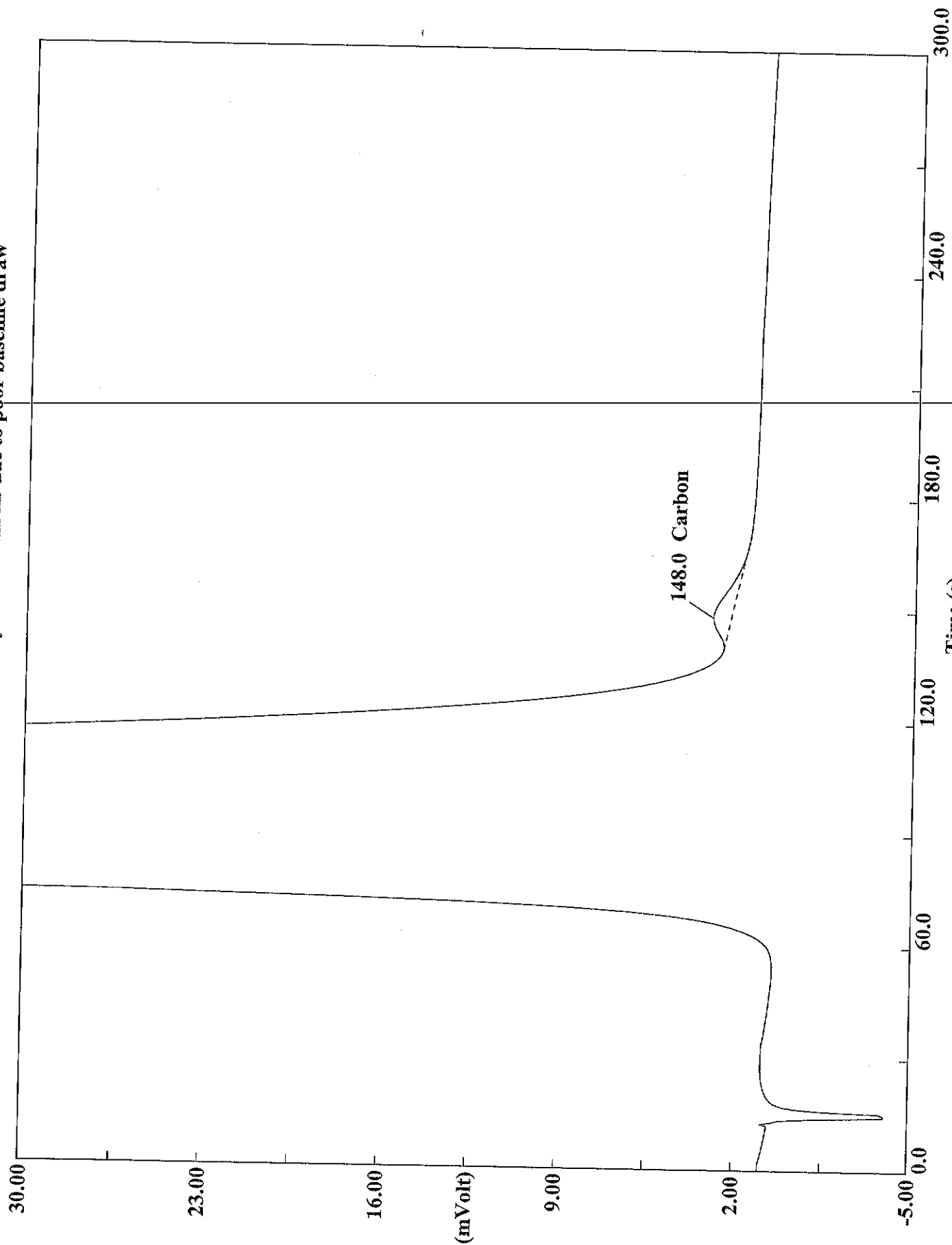
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314115  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:02 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-b-8 (# 77)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 8.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9249	149	104632 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314116.DAT

Sample name : 180-37750-b-8 Analysed : 10/23/2014 16:07

# Eager 300 Report

Page: 1 Sample: 180-37750-b-8 (A102314116)

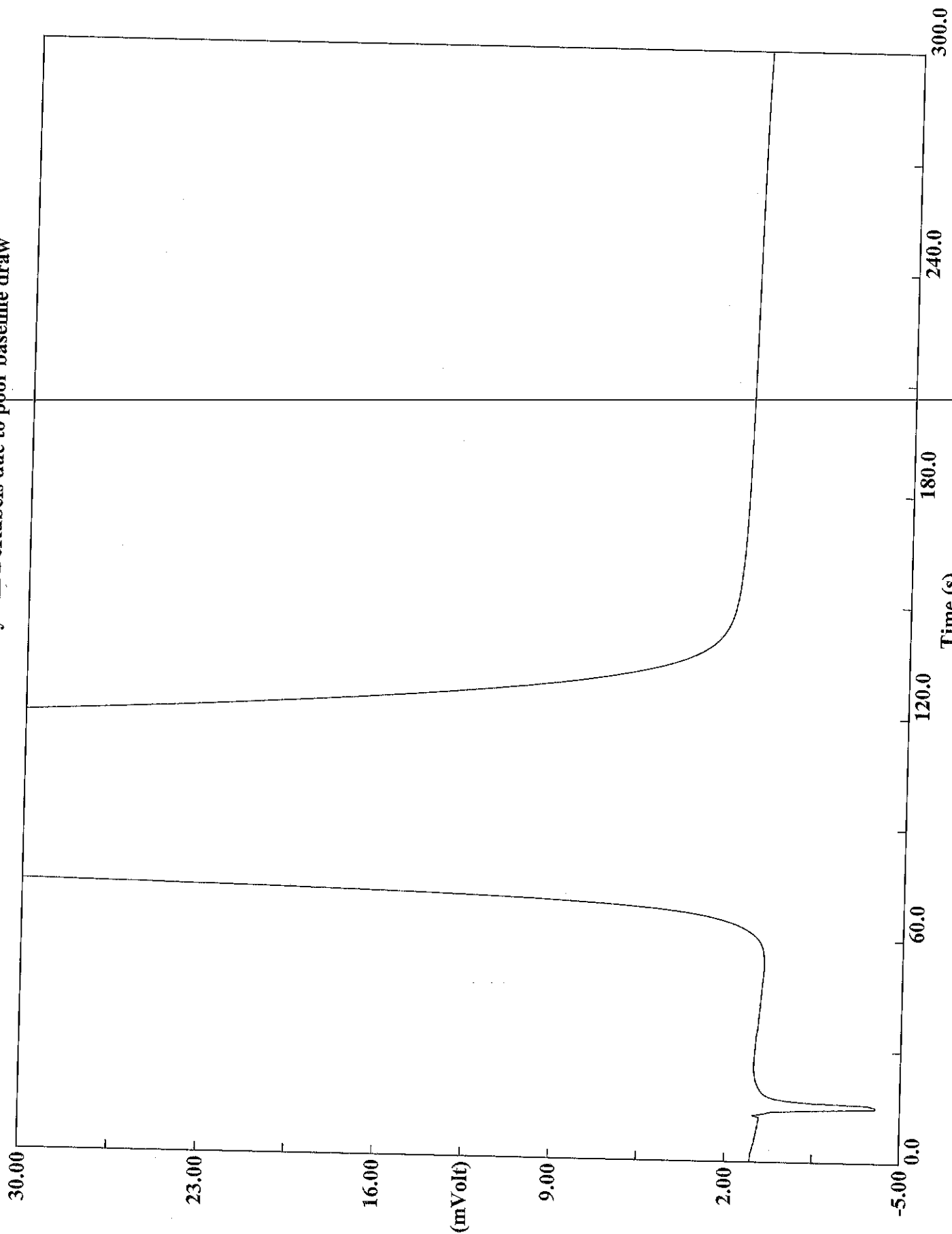
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314116  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 16:07  
Sample ID : 180-37750-b-8 (# 78)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:20  
Sample weight : 7.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9219	148	84205 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314117.DAT  
Sample name :rinse Analysed :10/23/2014 16:12

# Eager 300 Report

Page: 1 Sample: rinse (A102314117)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314117  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:12 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 79)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

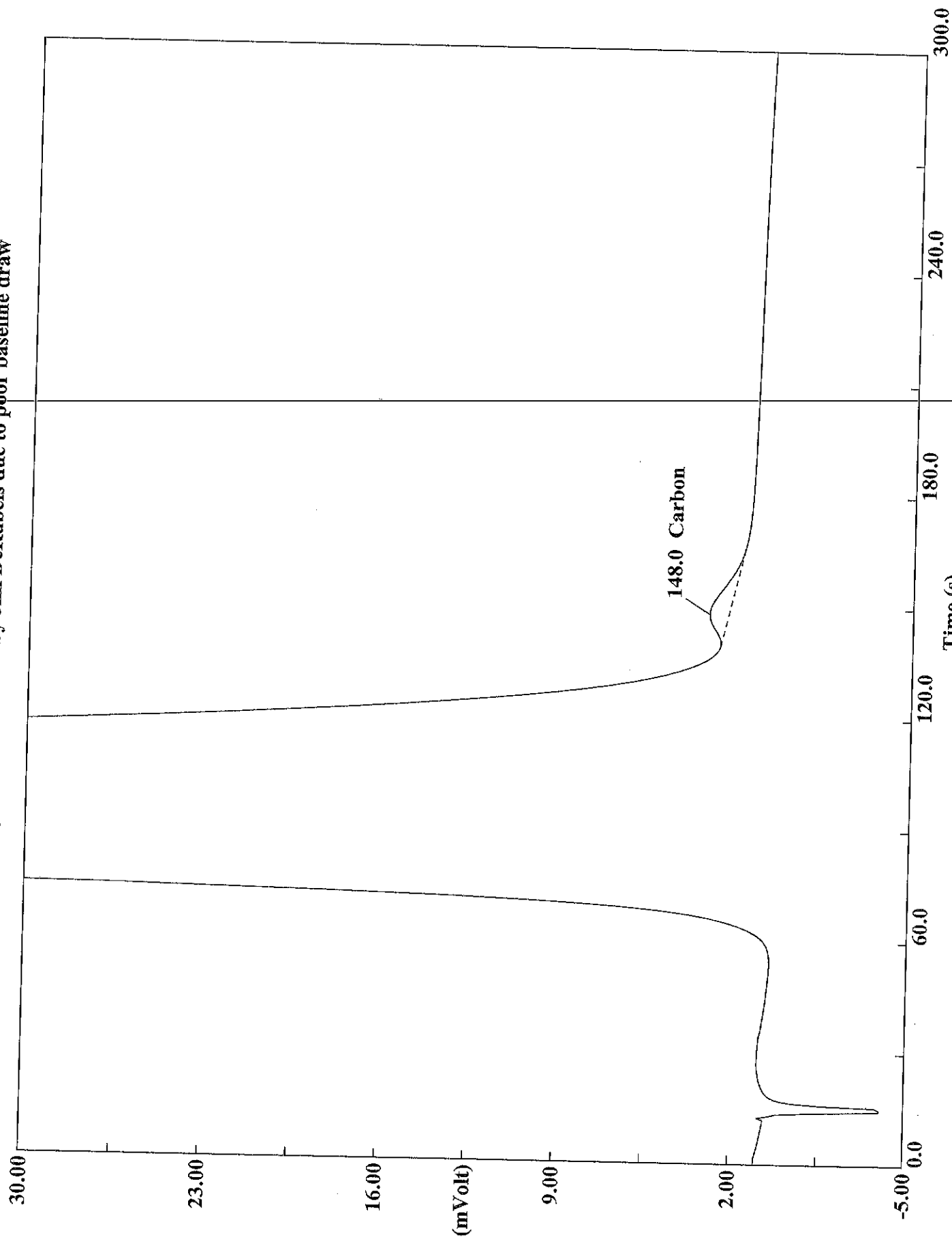
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314118.DAT

Sample name :180-37750-b-9 Analysed :10/23/2014 16:18

# Eager 300 Report

Page: 1 Sample: 180-37750-b-9 (A102314118)

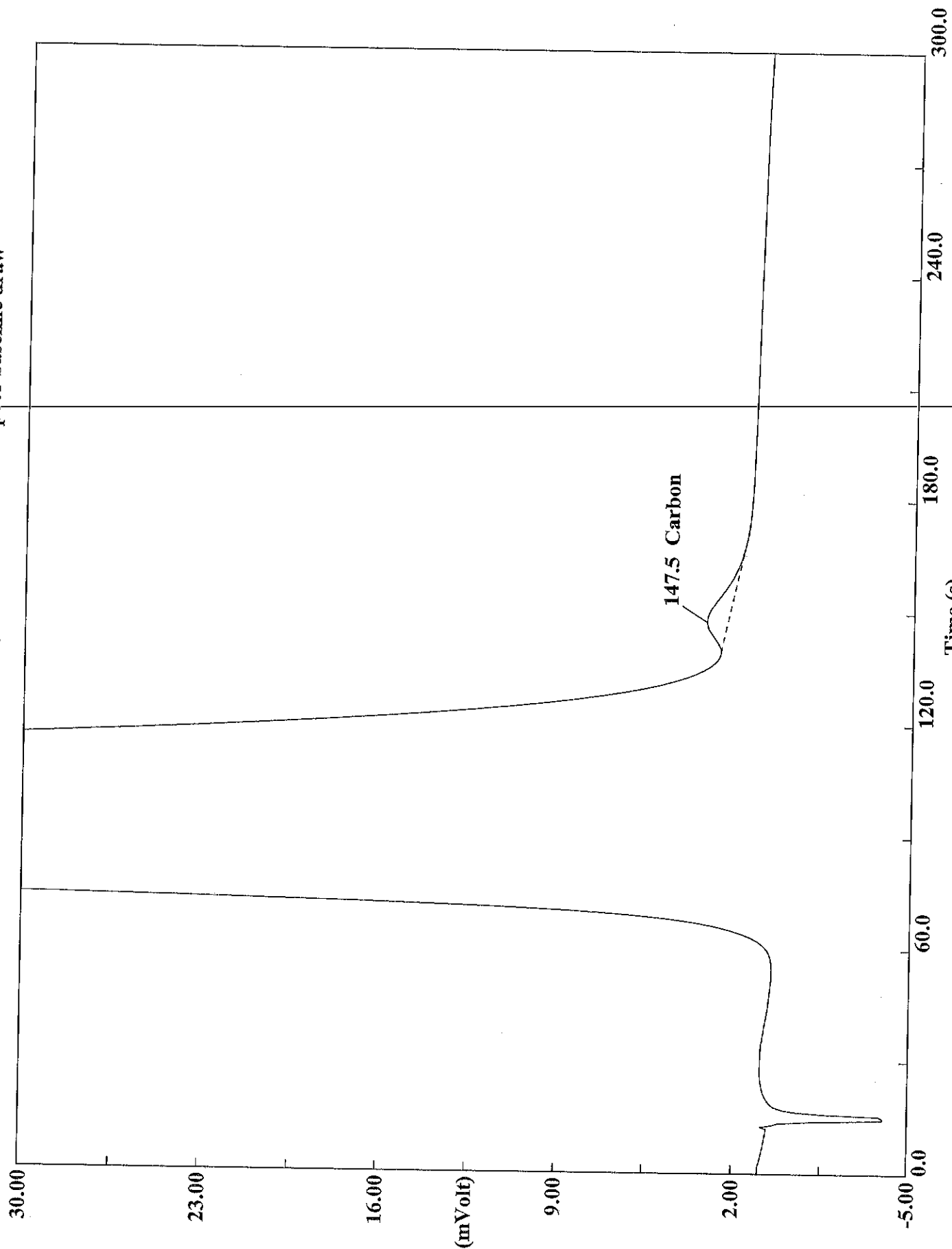
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314118  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:18 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-b-9 (# 80)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 5.3

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3668	148	93310 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314119.DAT

Sample name :180-37750-b-9 Analysed :10/23/2014 16:23

# Eager 300 Report

Page: 1 Sample: 180-37750-b-9 (A102314119)

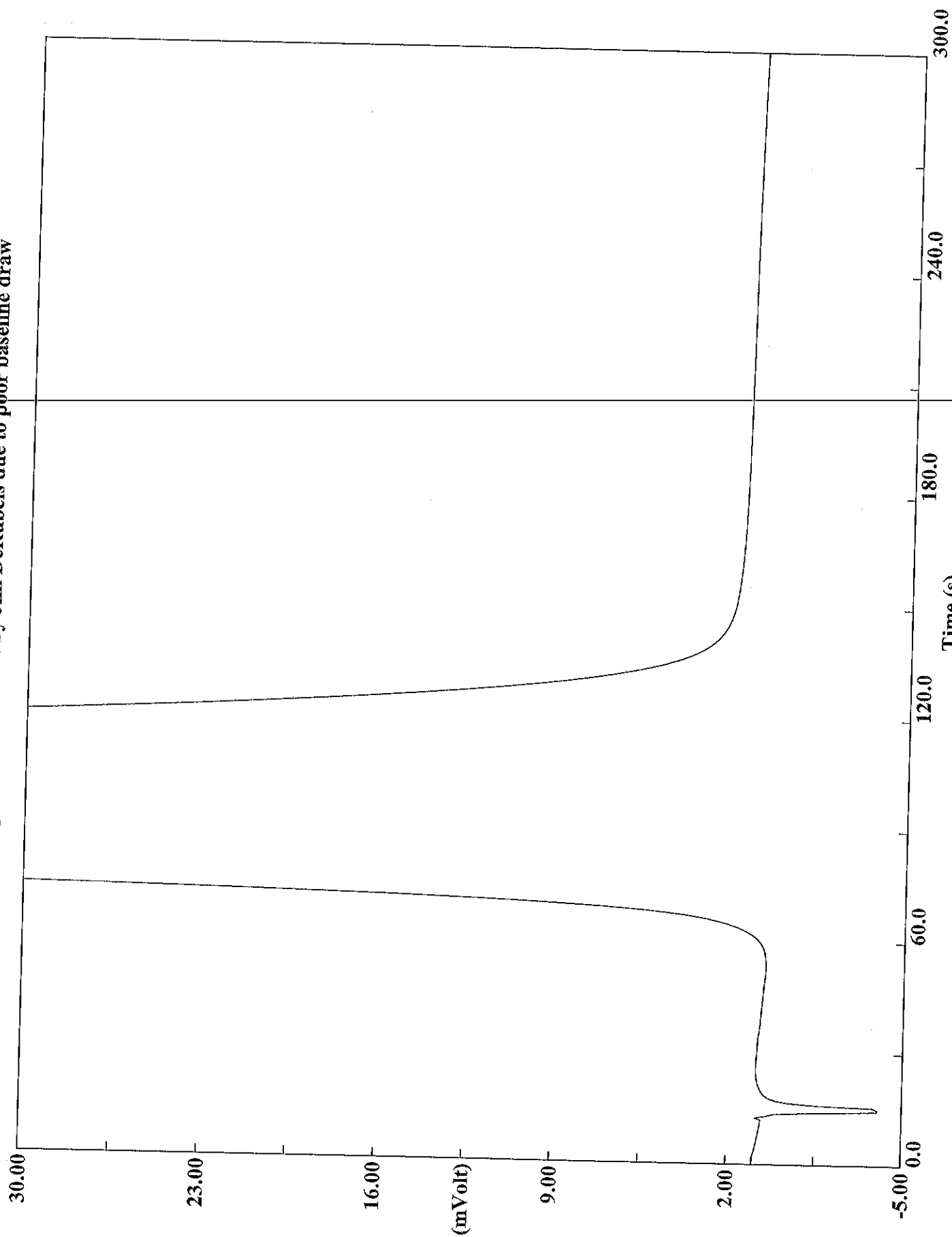
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314119  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:23 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-b-9 (# 81)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 4.9

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.5655	148	102507 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314120.DAT  
Sample name :rinse Analysed :10/23/2014 16:28

# Eager 300 Report

Page: 1 Sample: rinse (A102314120)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314120  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:28 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 82)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

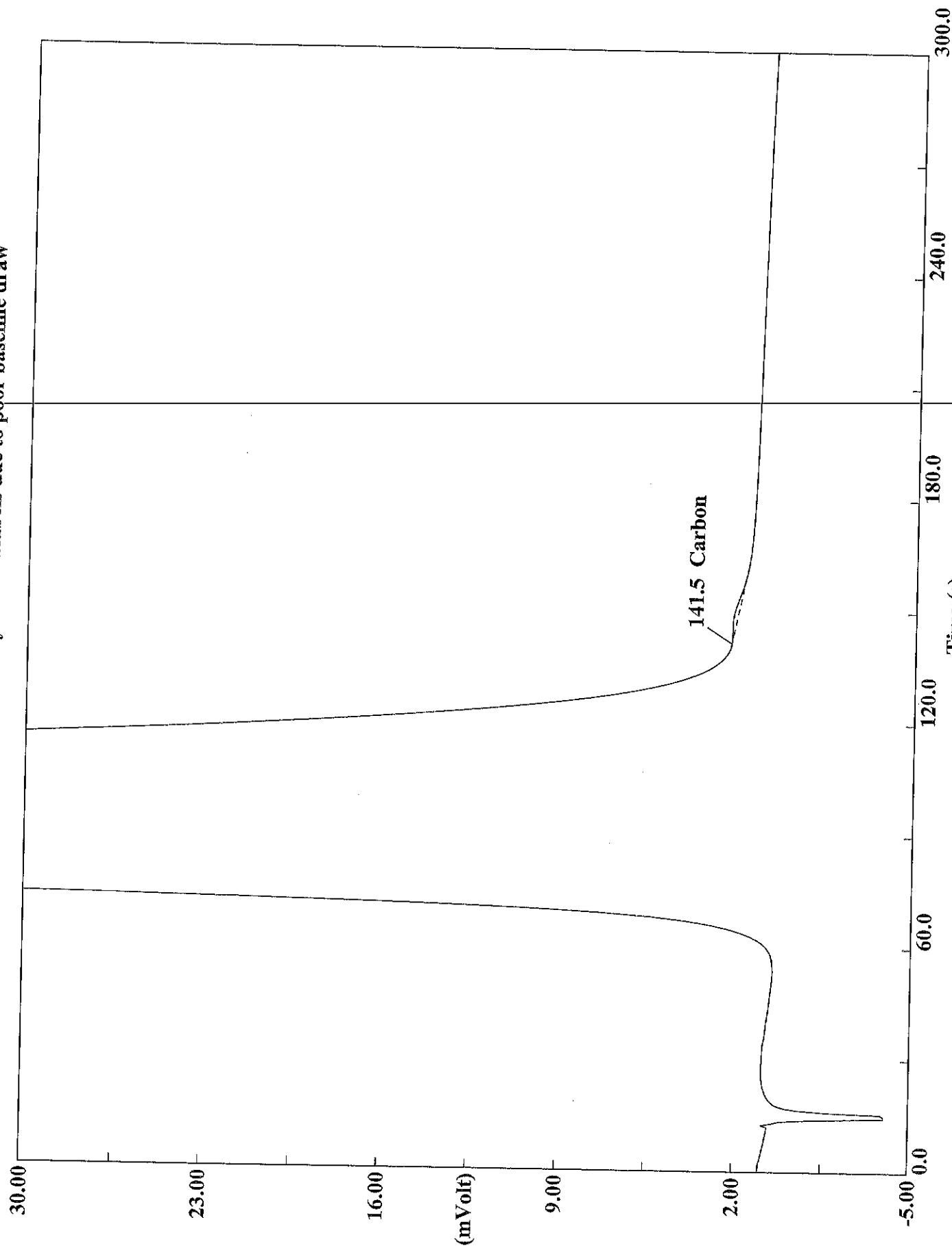
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Time (s)

Filename C:\data\January\A102314121.DAT

Sample name :180-37750-c-4 Analysed :10/23/2014 16:33

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 (A102314121)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314121  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 16:33  
Sample ID : 180-37750-c-4 (# 83)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:20  
Sample weight : 20

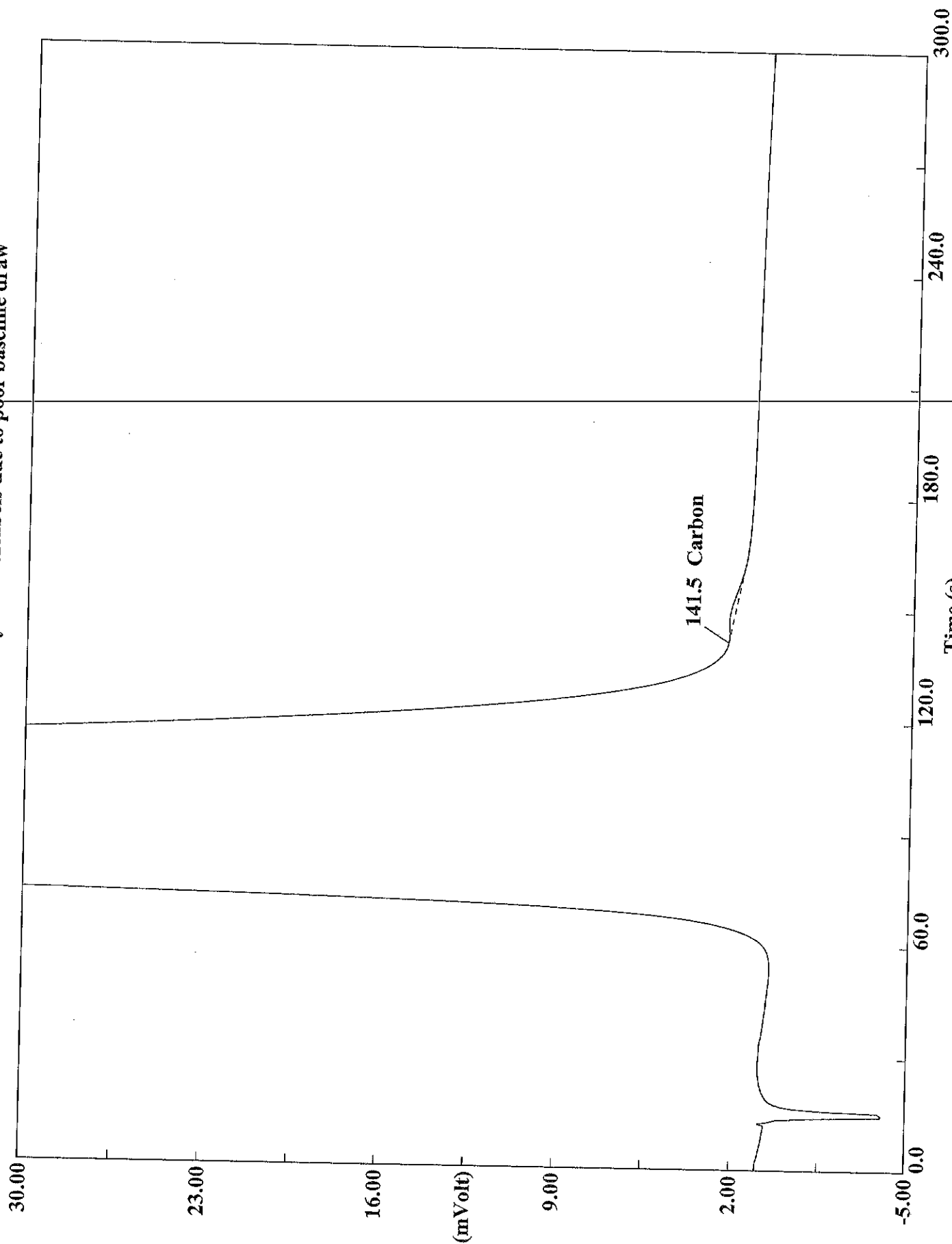
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1754	142	12792 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314122.DAT

Sample name : 180-37750-c-4 Analysed : 10/23/2014 16:39

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 (A102314122)

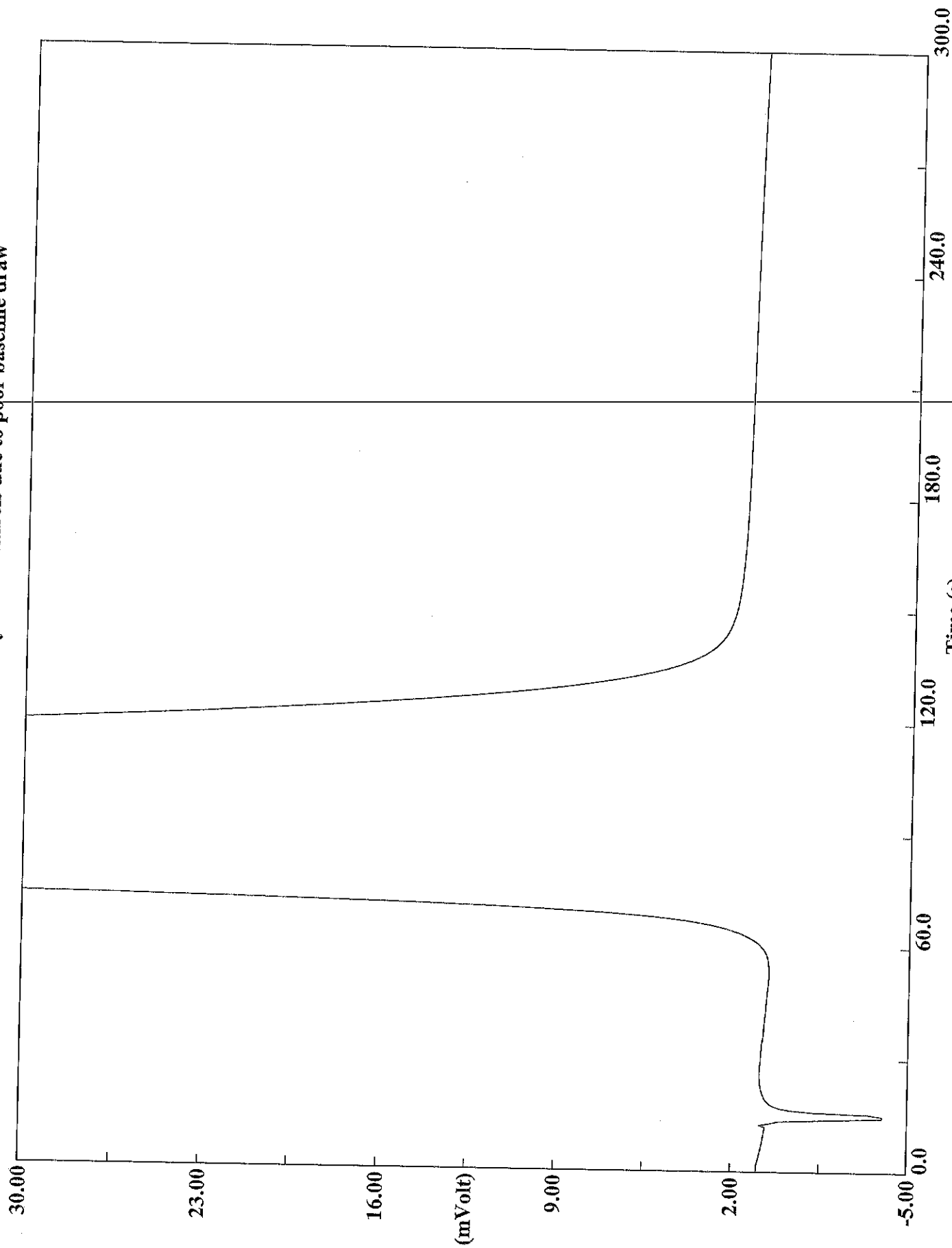
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314122  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:39 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-c-4 (# 84)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 21.7

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1704	142	16858 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314123.DAT  
Sample name :rinse Analysed :10/23/2014 16:44

# Eager 300 Report

Page: 1 Sample: rinse (A102314123)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314123  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:44 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 85)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

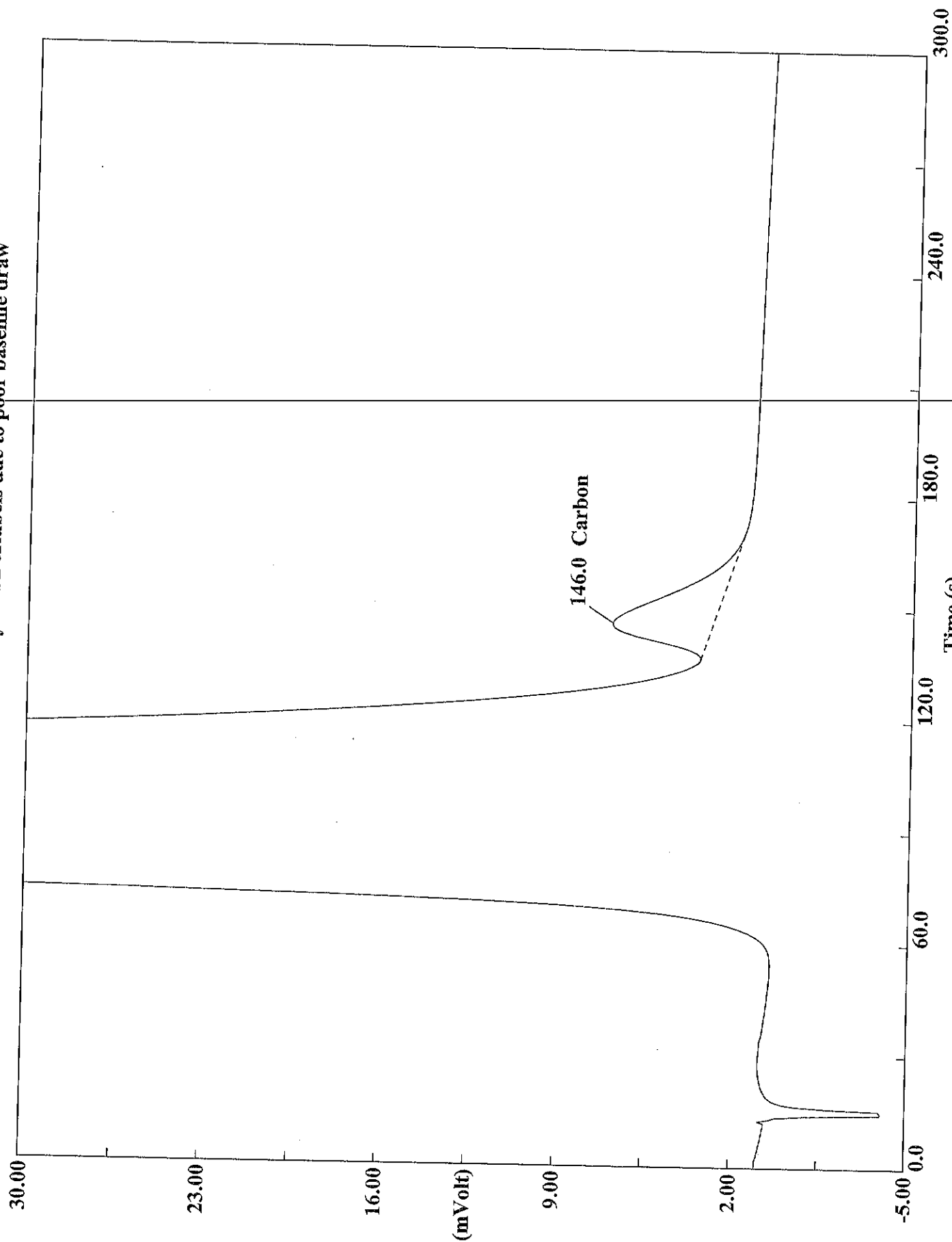
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314124.DAT

Sample name : 180-37750-a-4 ms Analysed : 10/23/2014 16:49

# Eager 300 Report

Page: 1 Sample: 180-37750-a-4 ms (A102314124)

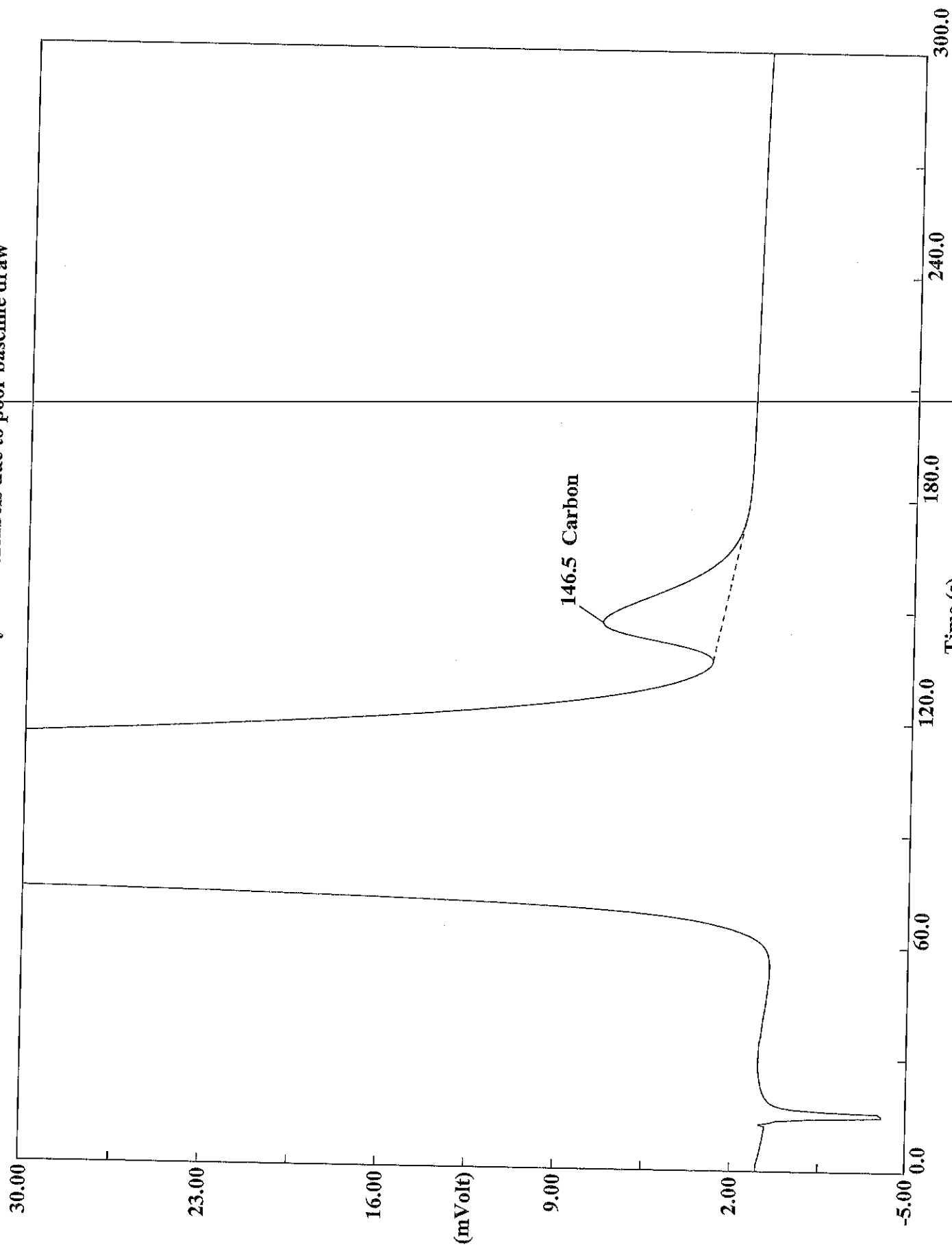
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314124  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:49 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-a-4 ms (# 86)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 21

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3524	146	549330 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314125.DAT

Sample name : 180-37750-a-4 ms Analysed : 10/23/2014 16:54

# Eager 300 Report

Page: 1 Sample: 180-37750-a-4 ms (A102314125)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314125  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:54 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-a-4 ms (# 87)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.3

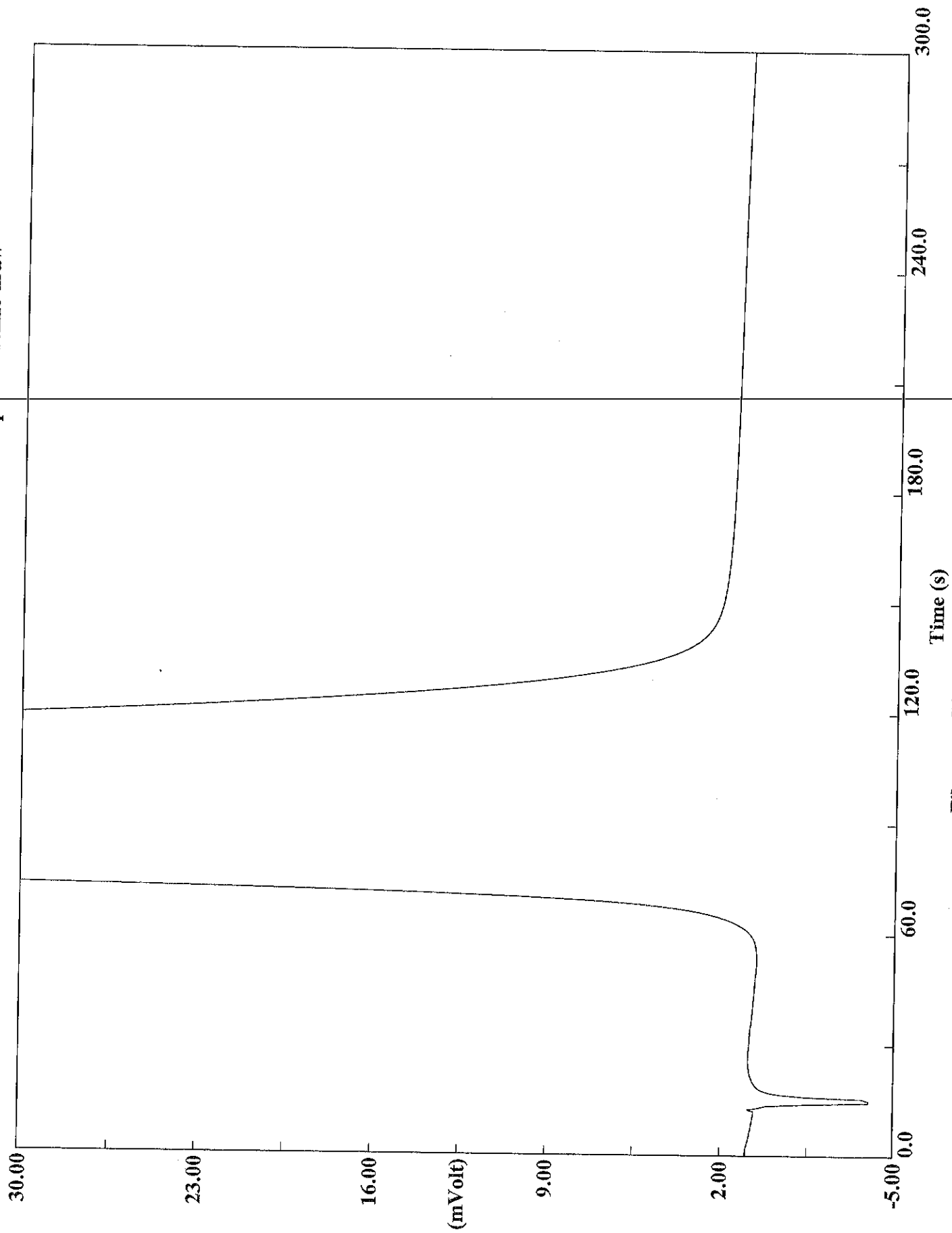
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.7337	147	695790 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314126.DAT  
Sample name :rinse Analysed :10/23/2014 17:00

# Eager 300 Report

Page: 1 Sample: rinse (A102314126)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314126  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:00 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 88)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

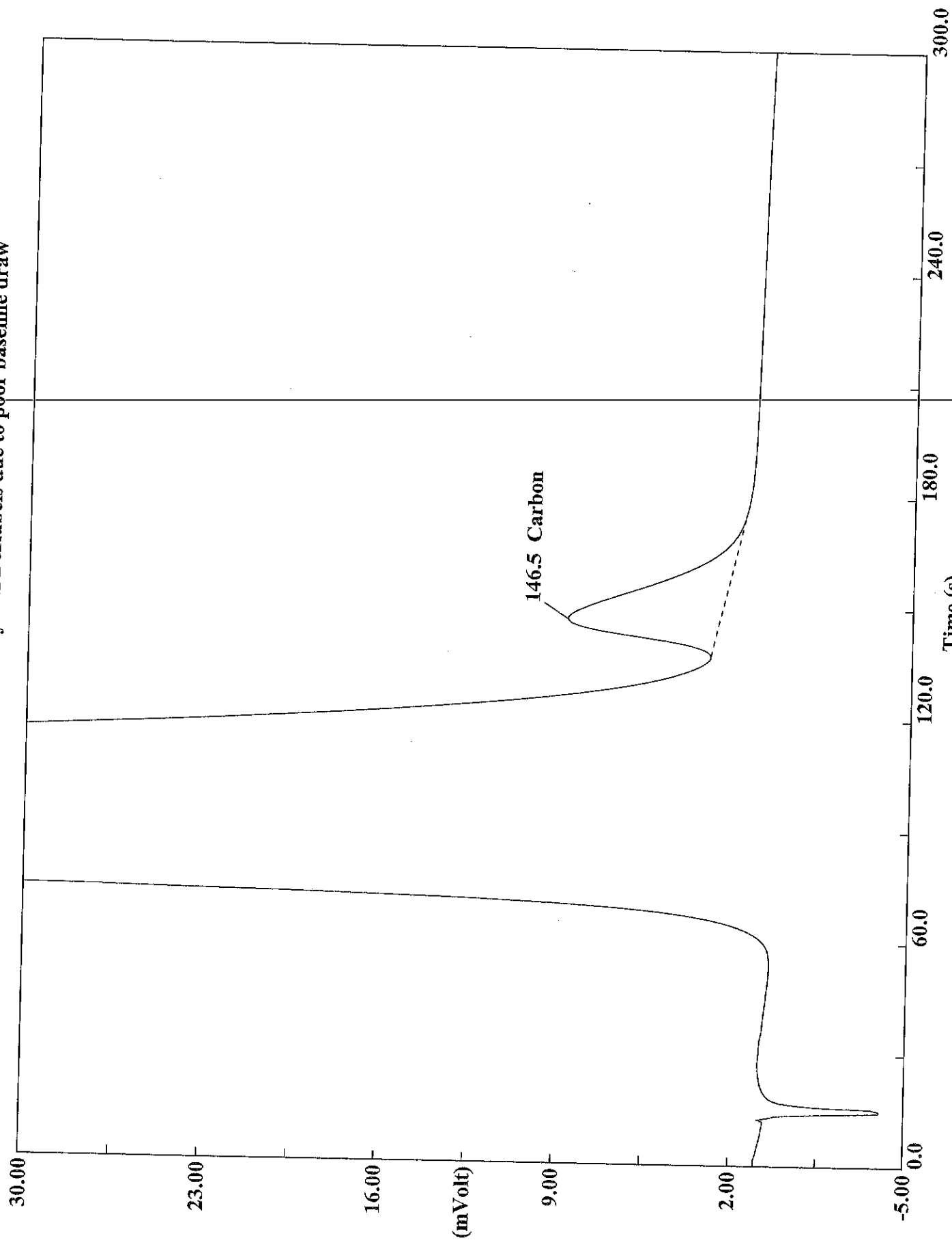
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314127.DAT

Sample name : 180-37750-b-4 msd Analysed : 10/23/2014 17:05

# Eager 300 Report

Page: 1 Sample: 180-37750-b-4 msd (A102314127)

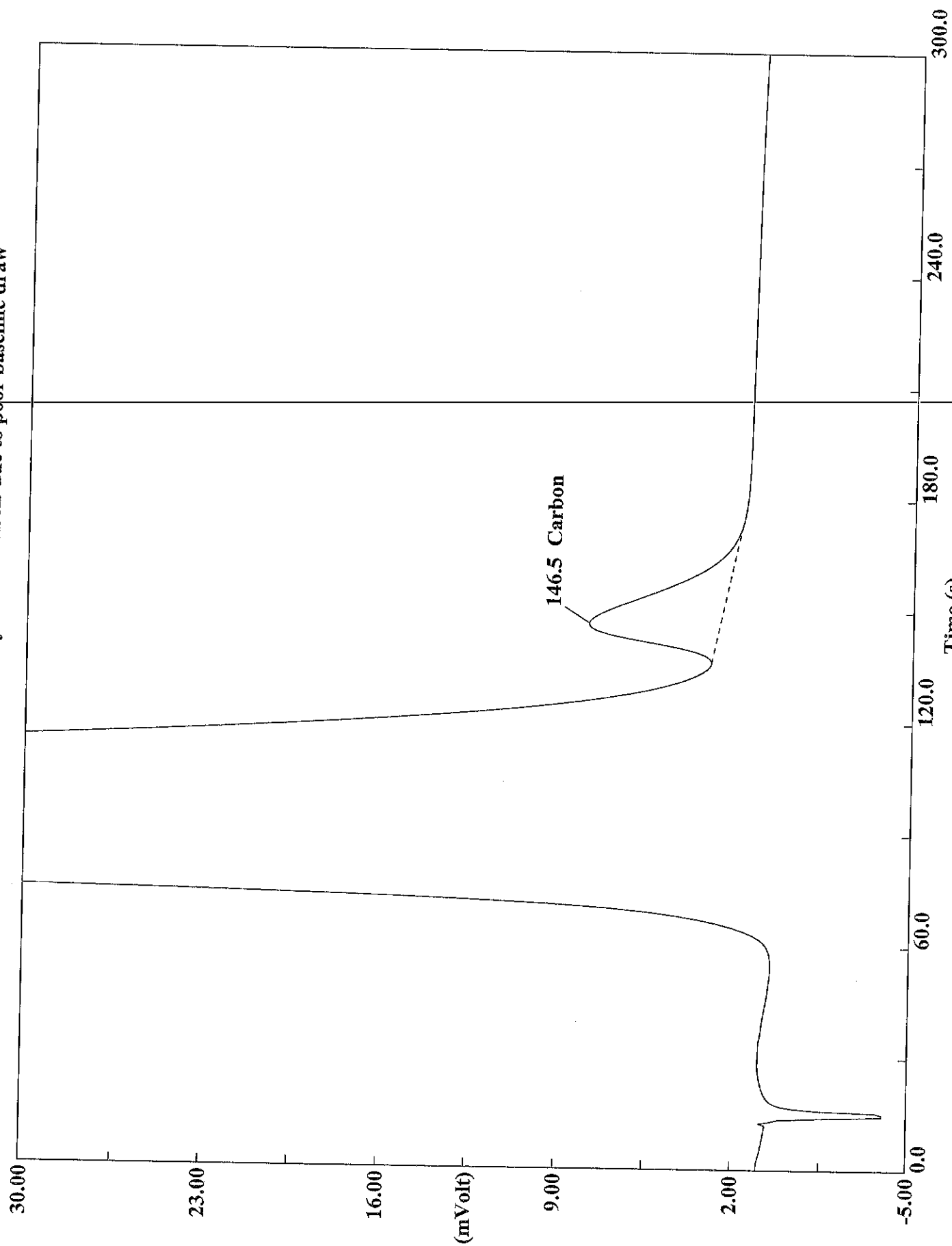
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314127  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:05 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-b-4 msd (# 89)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 21.1

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	2.1023	147	893306 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314128.DAT

Sample name : 180-37750-b-4 msd Analysed : 10/23/2014 17:10

# Eager 300 Report

Page: 1 Sample: 180-37750-b-4 msd (A102314128)

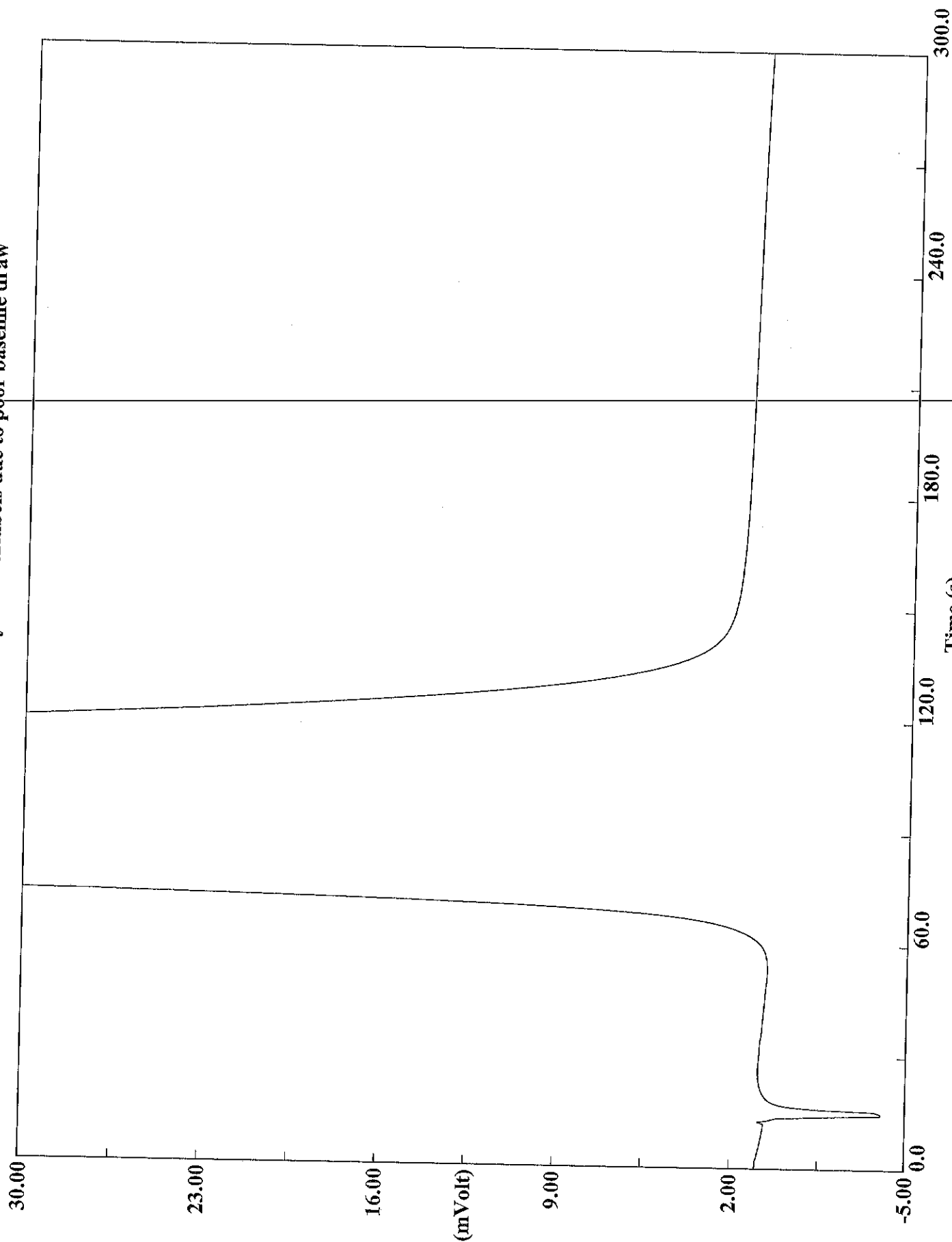
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314128  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:10 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-b-4 msd (# 90)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.5

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.8900	147	772323 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314129.DAT  
Sample name :rinse Analysed :10/23/2014 17:15

# Eager 300 Report

Page: 1 Sample: rinse (A102314129)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314129  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:15 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 91)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

Calib. method : using 'Least Squares to Linear fit'

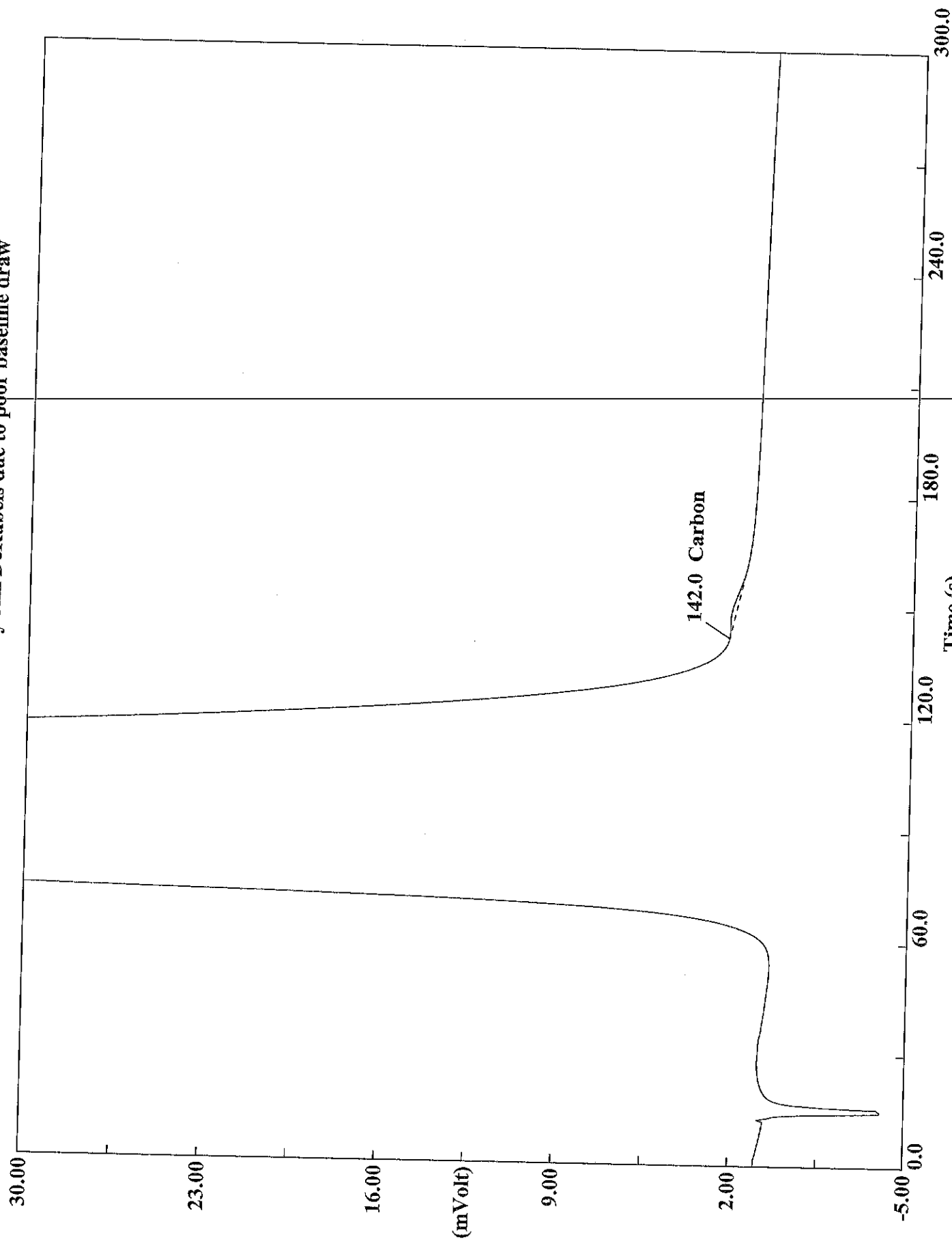
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314130.DAT

Sample name : 180-37750-c-4 du Analysed : 10/23/2014 17:21

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 du (A102314130)

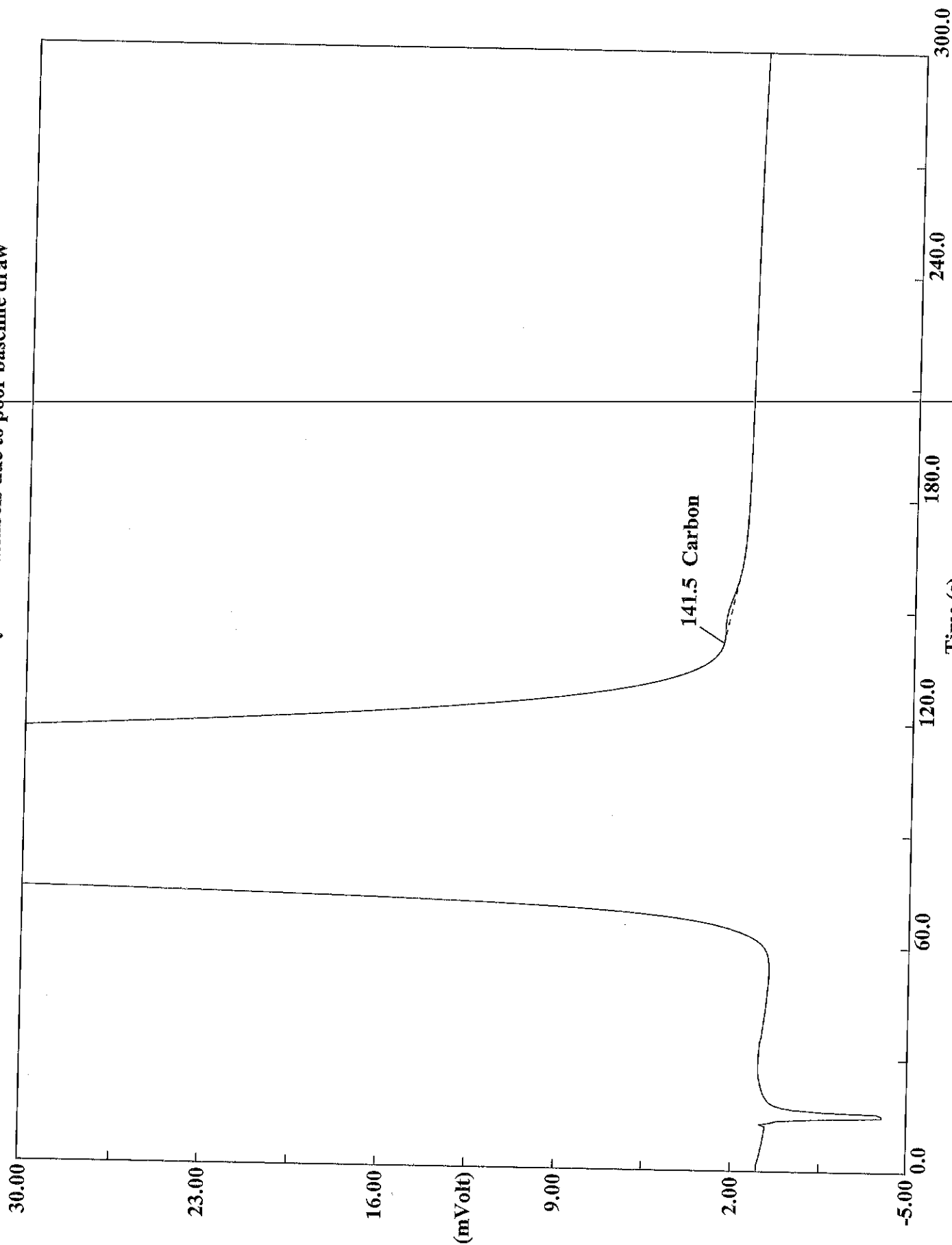
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314130  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:21 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-c-4 du (# 92)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.1

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1770	142	13823 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Time (s)

Filename C:\data\January\A102314131.DAT

Sample name : 180-37750-c-4 du Analysed : 10/23/2014 17:26

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 du (A102314131)

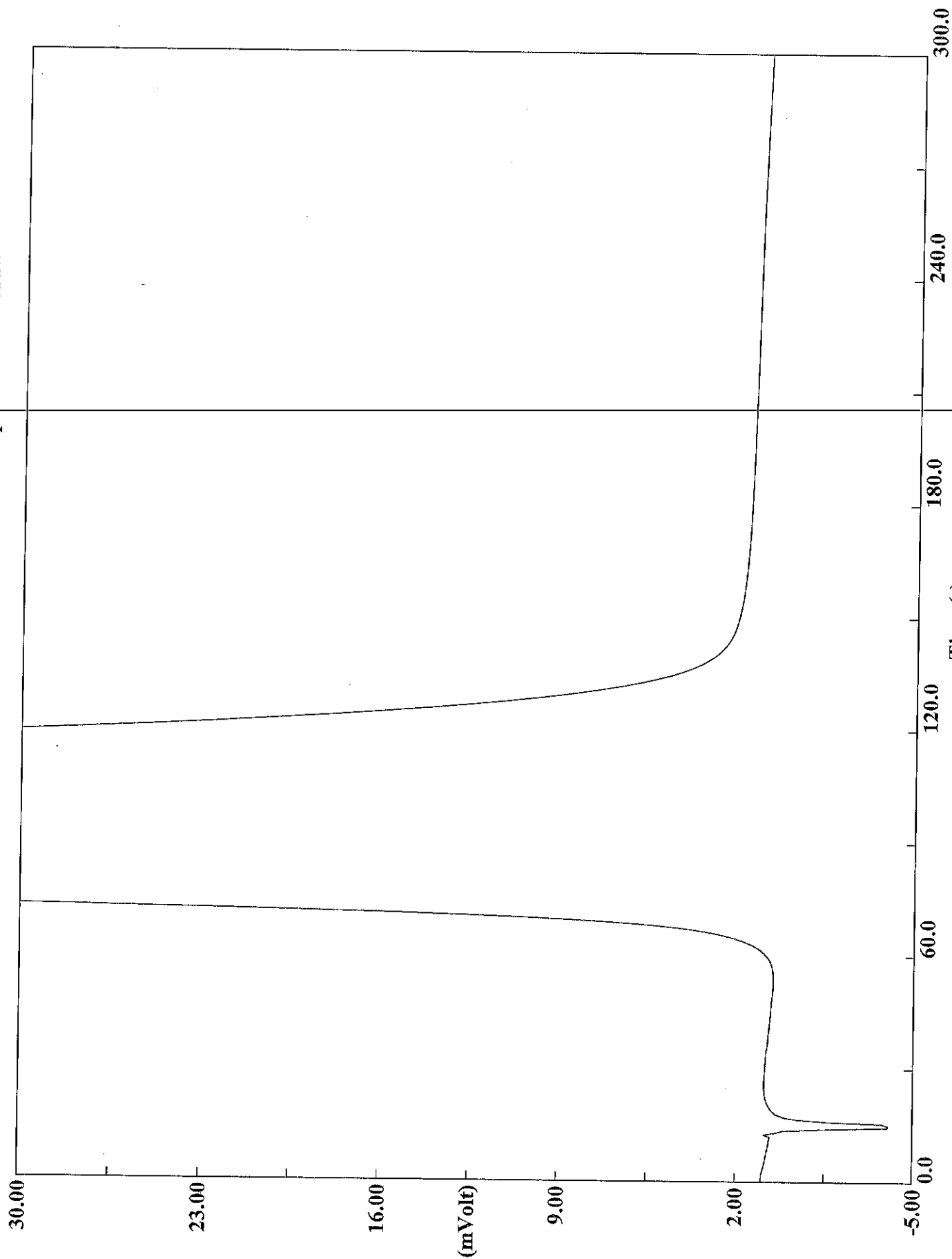
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314131  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:26 Printed : 10/24/2014 04:20  
Sample ID : 180-37750-c-4 du (# 93)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.4

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1668	142	10489 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314132.DAT  
Sample name :rinse Analysed :10/23/2014 17:31

# Eager 300 Report

Page: 1 Sample: rinse (A102314132)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314132  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:31 Printed : 10/24/2014 04:20  
Sample ID : rinse (# 94)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 1

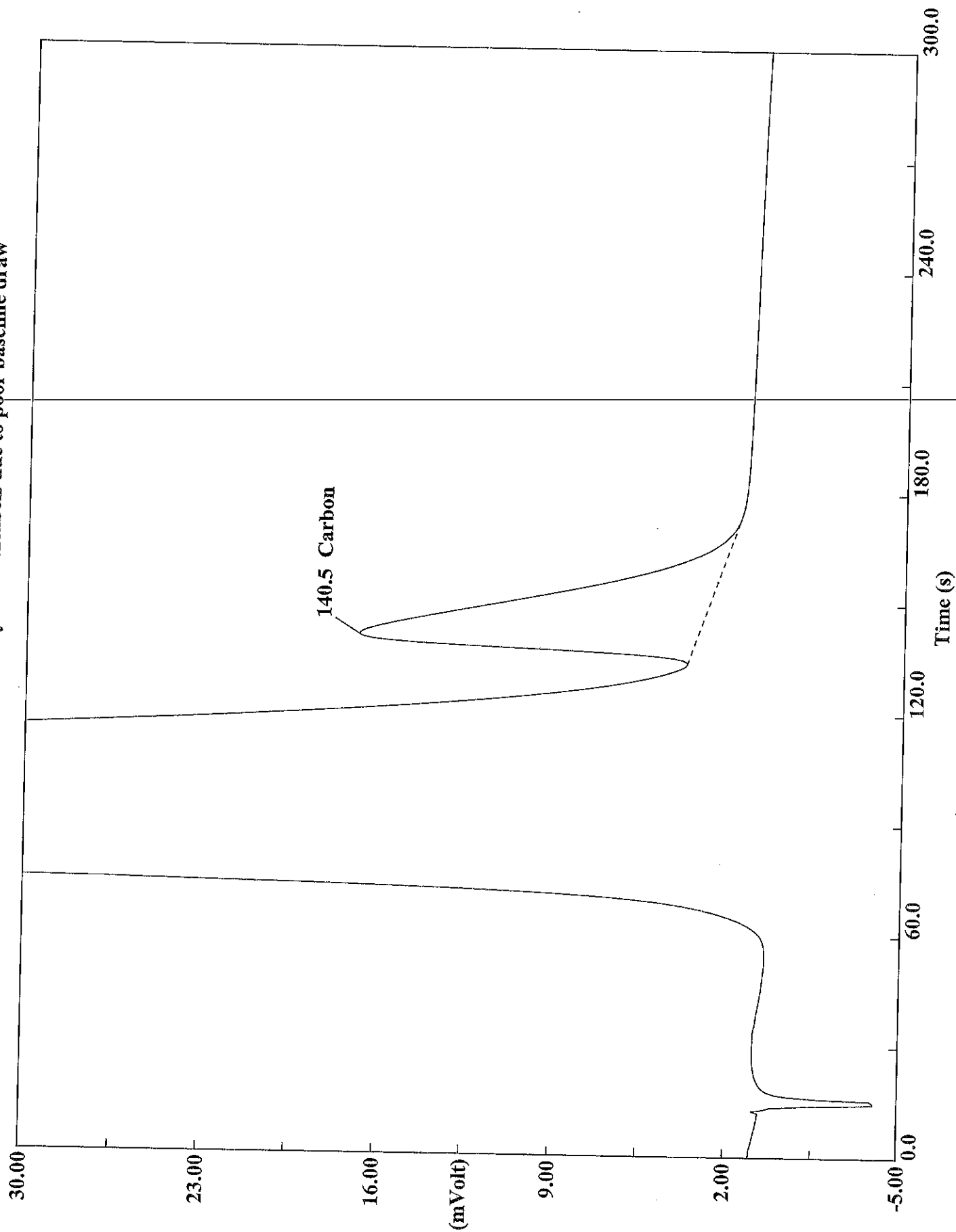
Calib. method : using 'Least Squares to Linear fit'

!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Time (s)  
Filename C:\data\January\A102314133.DAT  
Sample name :ccv Analysed :10/23/2014 17:36

# Eager 300 Report

Page: 1 Sample: ccv (A102314133)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314133  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:36 Printed : 10/24/2014 04:20  
Sample ID : ccv (# 95)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 100

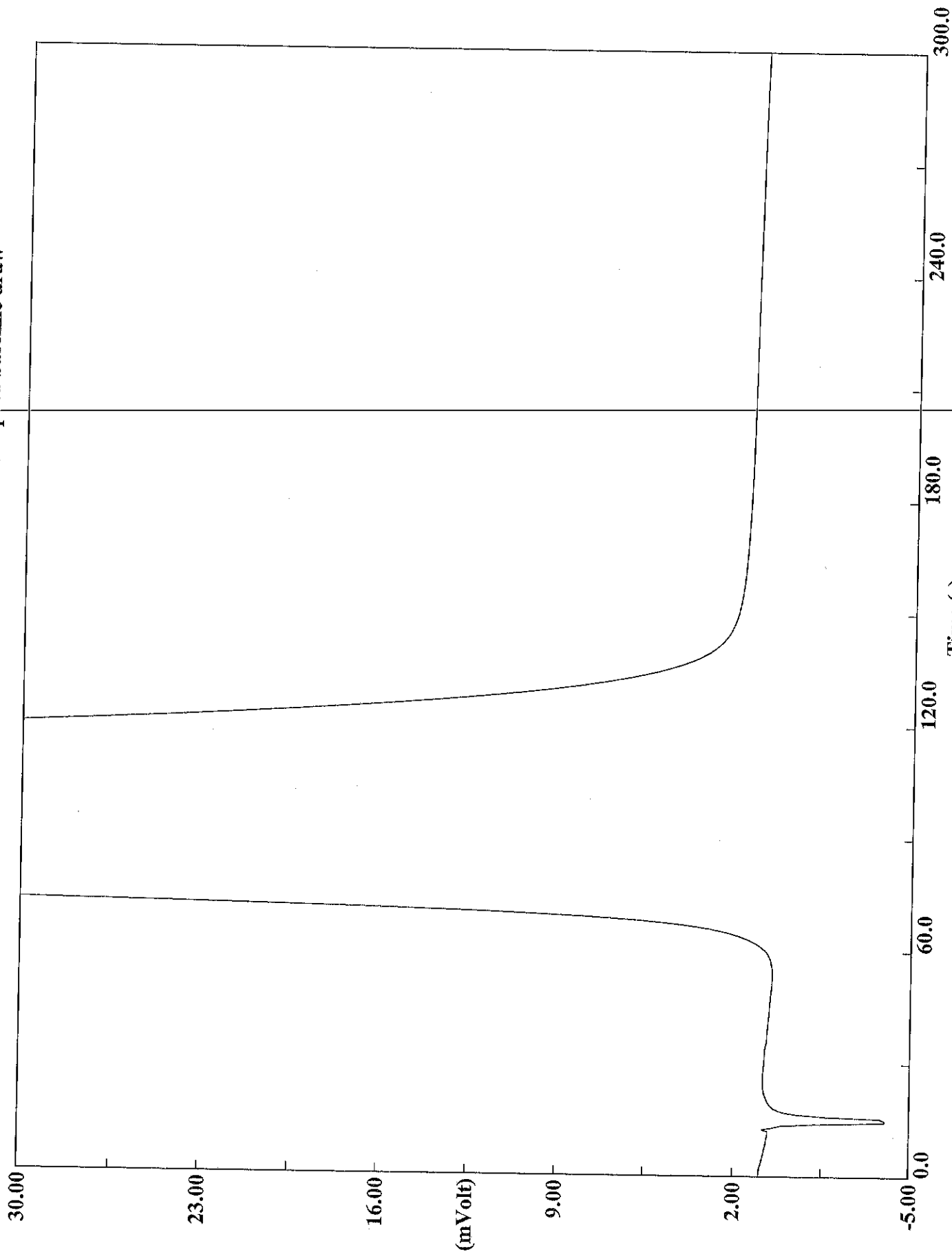
Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.9806	141	2050854 mi		1.000000	



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Time (s)  
Filename C:\data\January\A102314134.DAT  
Sample name :ccb Analysed :10/23/2014 17:42

# Eager 300 Report

Page: 1 Sample: ccb (A102314134)

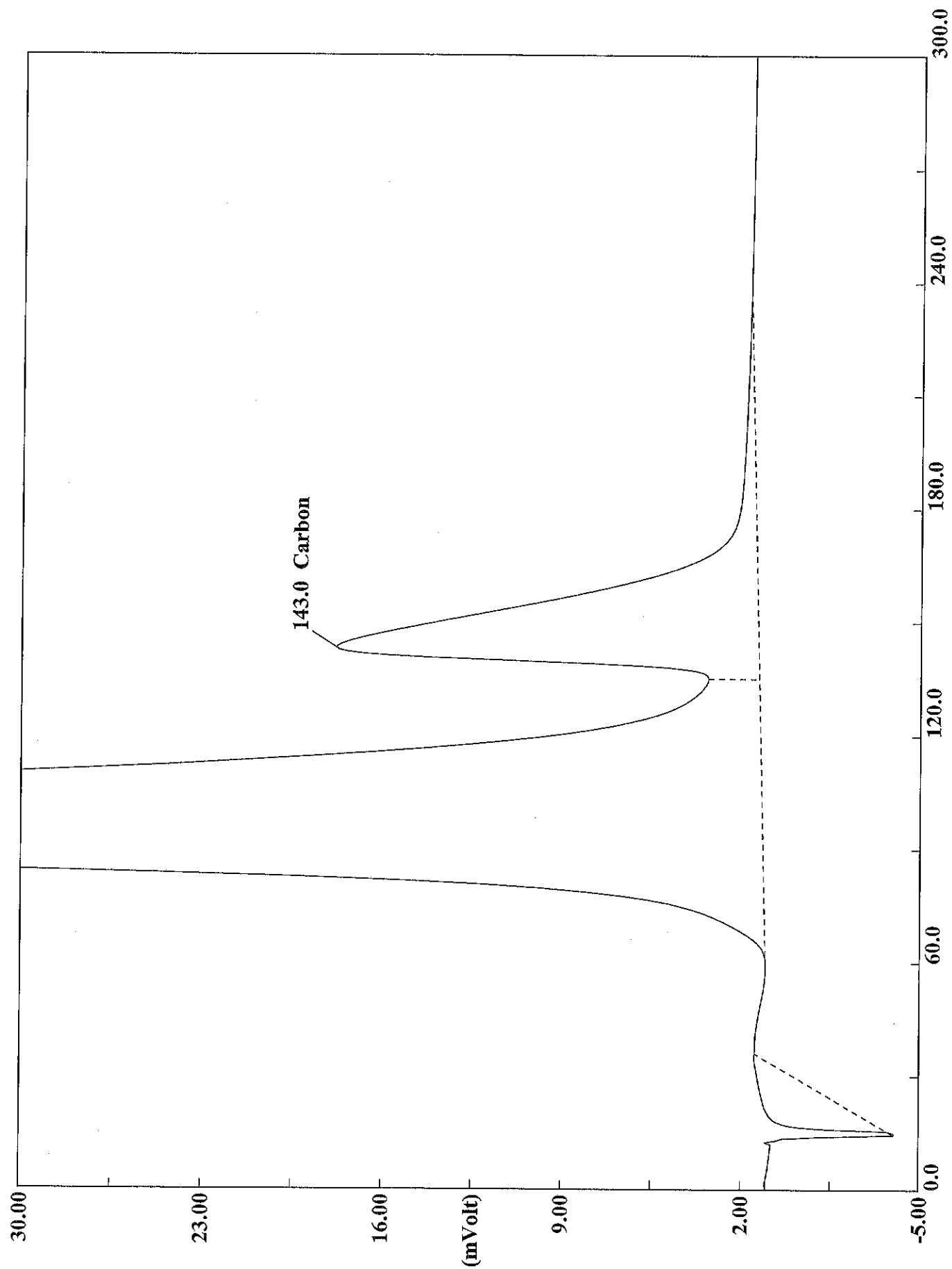
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314a.mth  
Chromatogram : A102314134  
Operator ID : James DeRubeis  
Analysed : 10/23/2014 17:42  
Sample ID : ccb (# 96)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area)  
Company Name : TestAmerica Pitt  
Printed : 10/24/2014 04:20  
Sample weight : 20

Calib. method : using 'Least Squares to Linear fit'

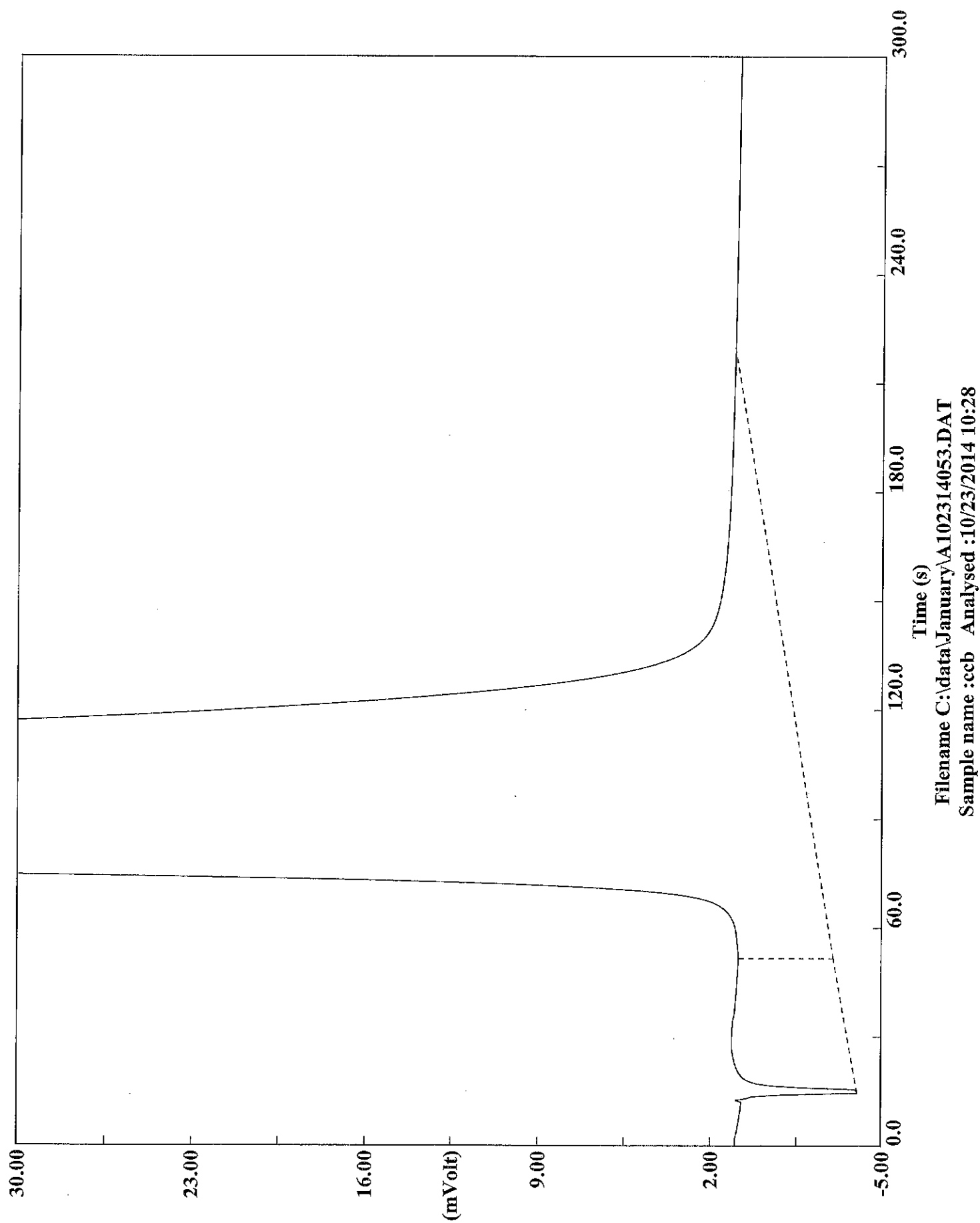
!!! Warning missing one or more peaks.

Warning Chromatogram has been subjected to manual integration.

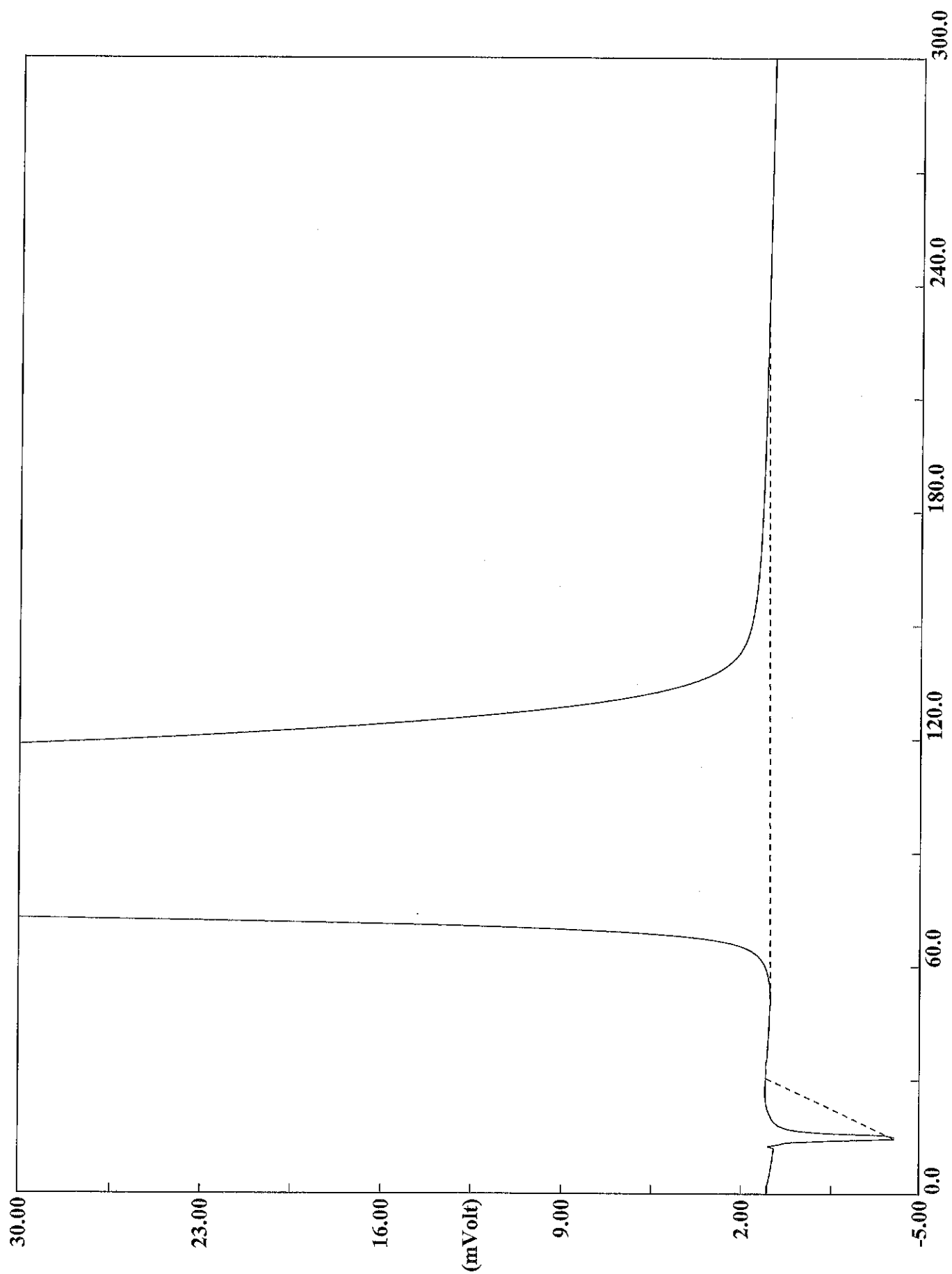
Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
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Filename C:\data\January\A102314052.DAT  
Sample name :ccv Analysed :10/23/2014 10:21

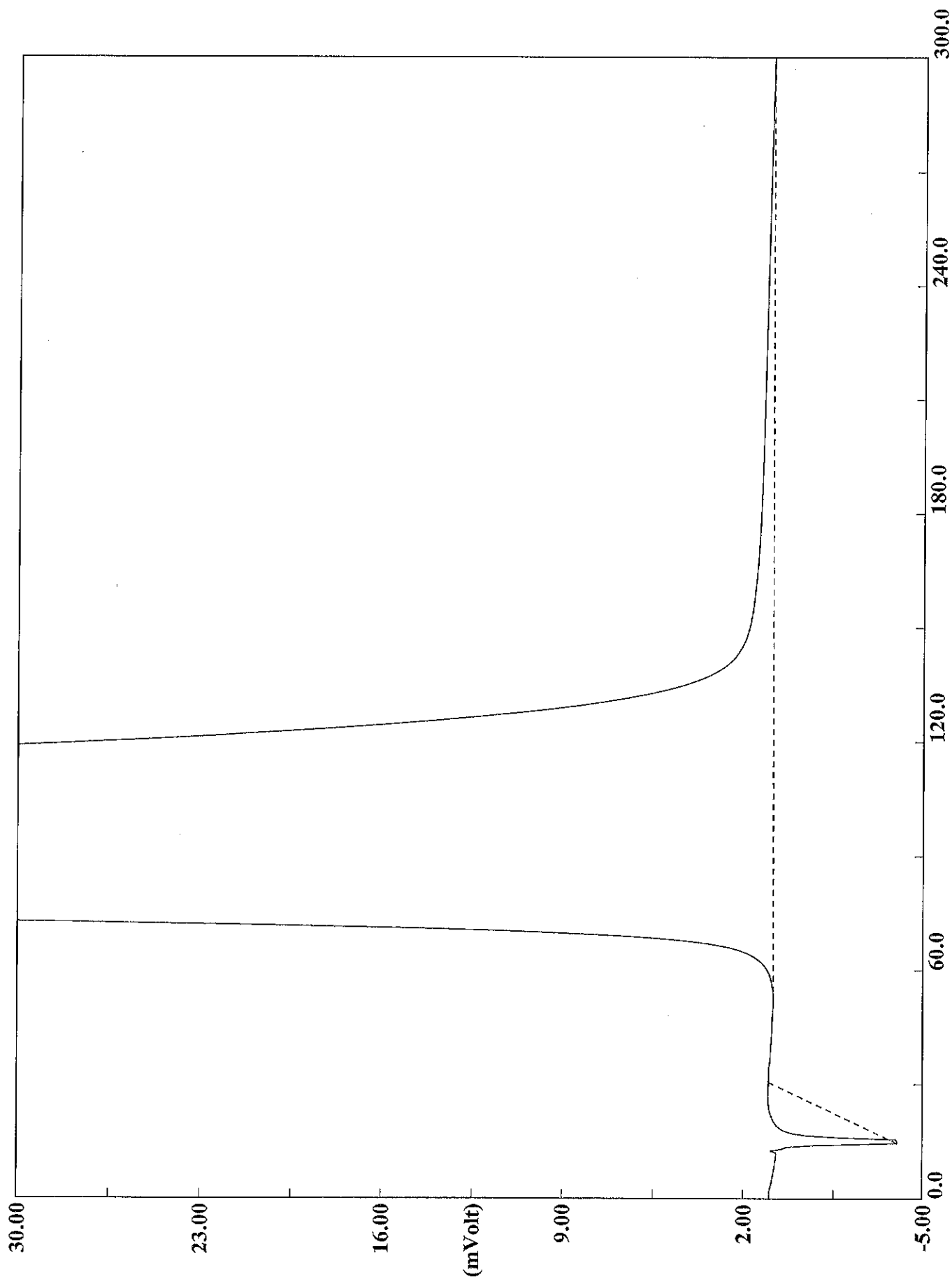


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

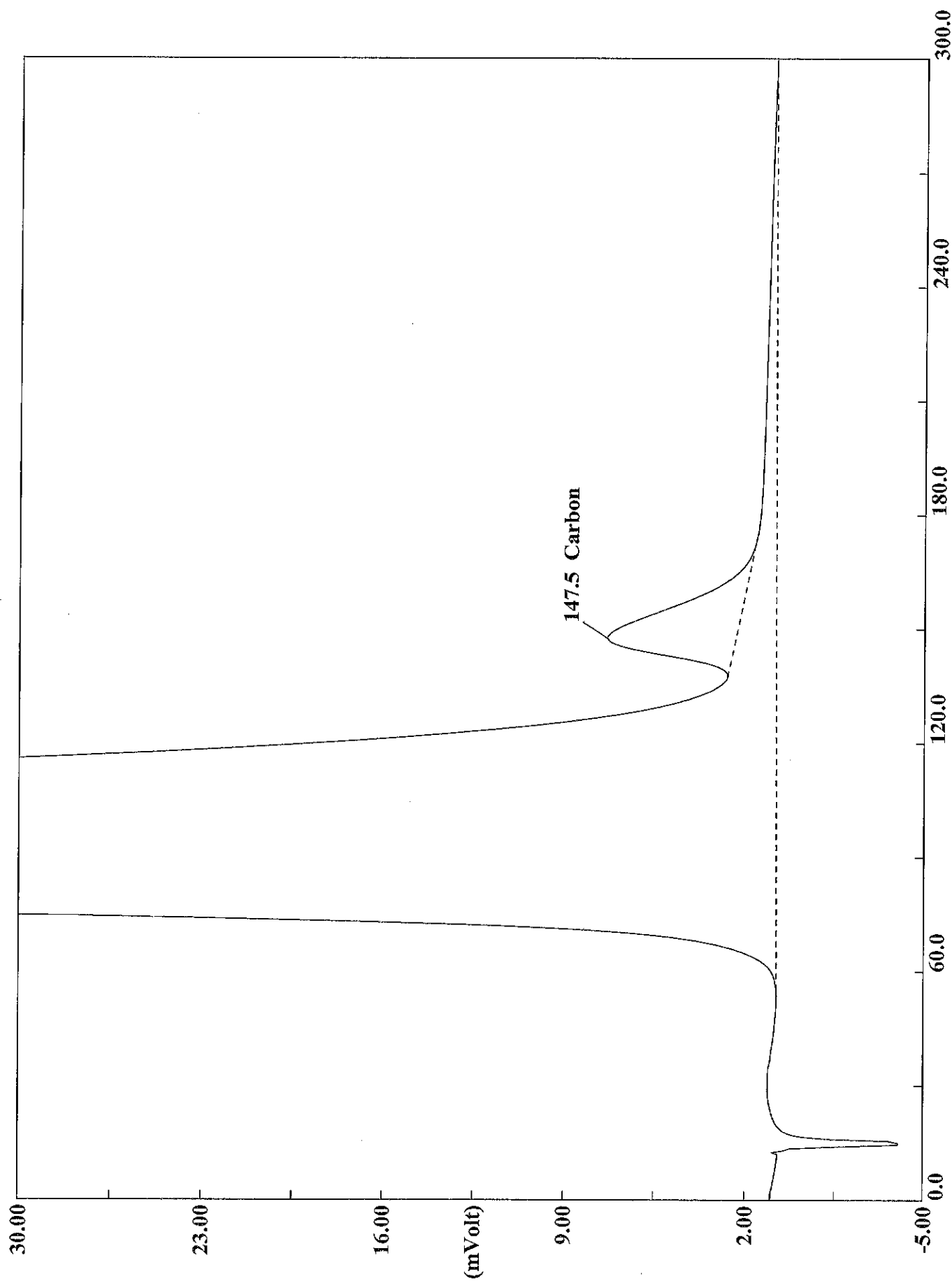


Filename C:\data\January\A102314054.DAT

Sample name :mb OS-2CB0290 Analysed :10/23/2014 10:33

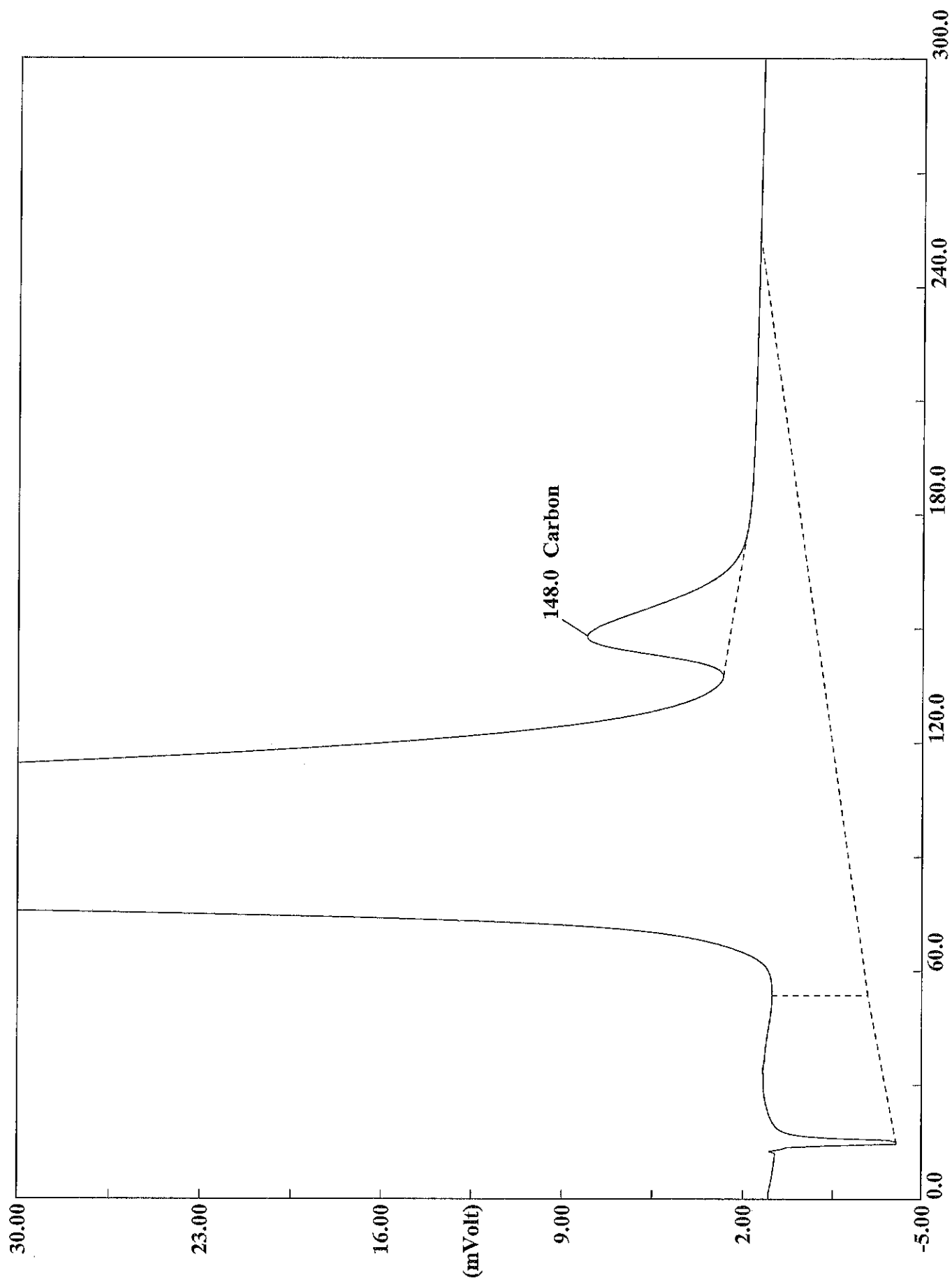


Filename C:\data\January\A102314055.DAT  
Sample name :mb OS-2CB0290 Analysed :10/23/2014 10:38



Filename C:\data\January\A102314056.DAT  
Sample name : lcs Analysed : 10/23/2014 10:44

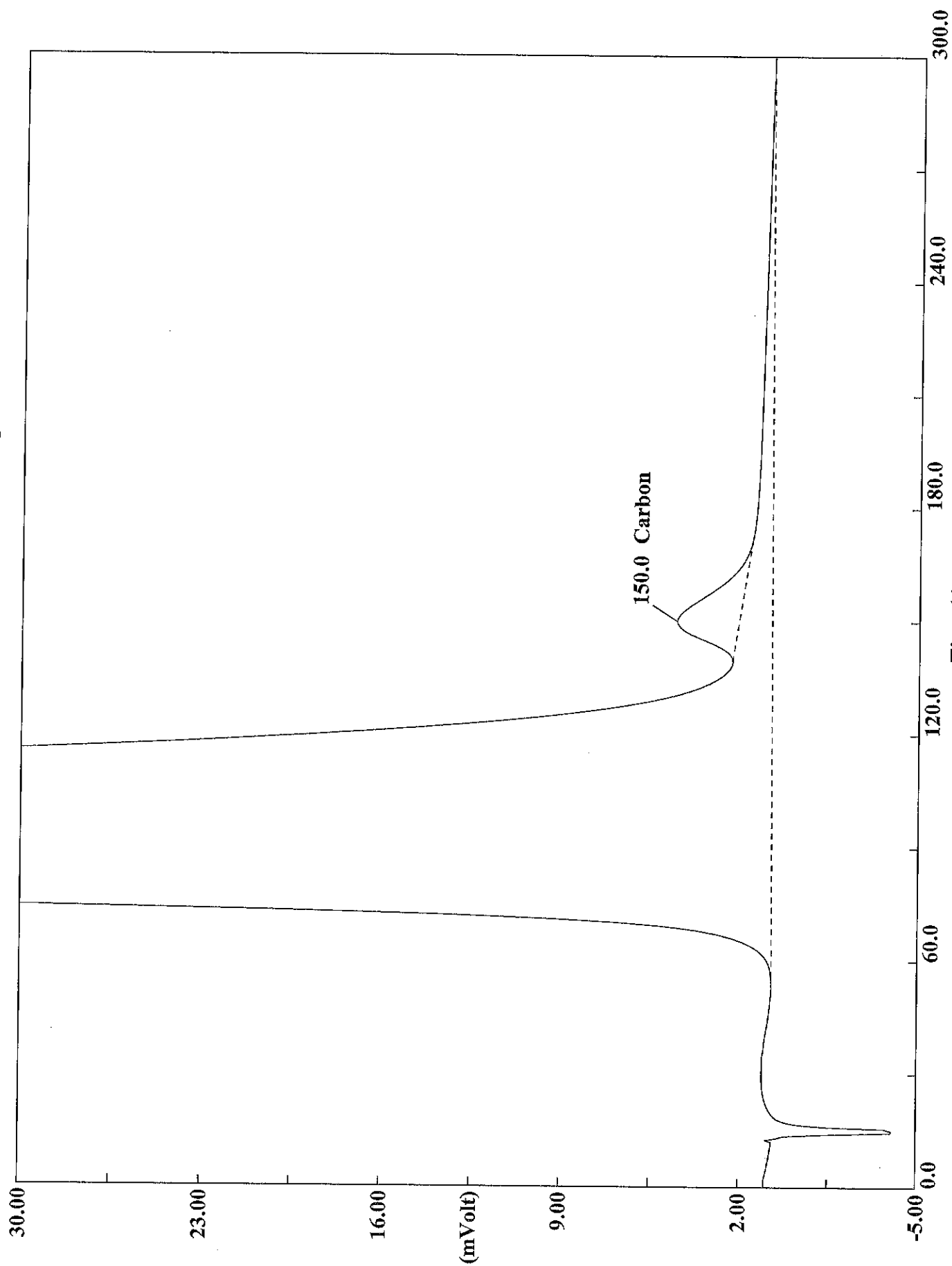
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314057.DAT  
Sample name : lcs Analysed : 10/23/2014 10:50



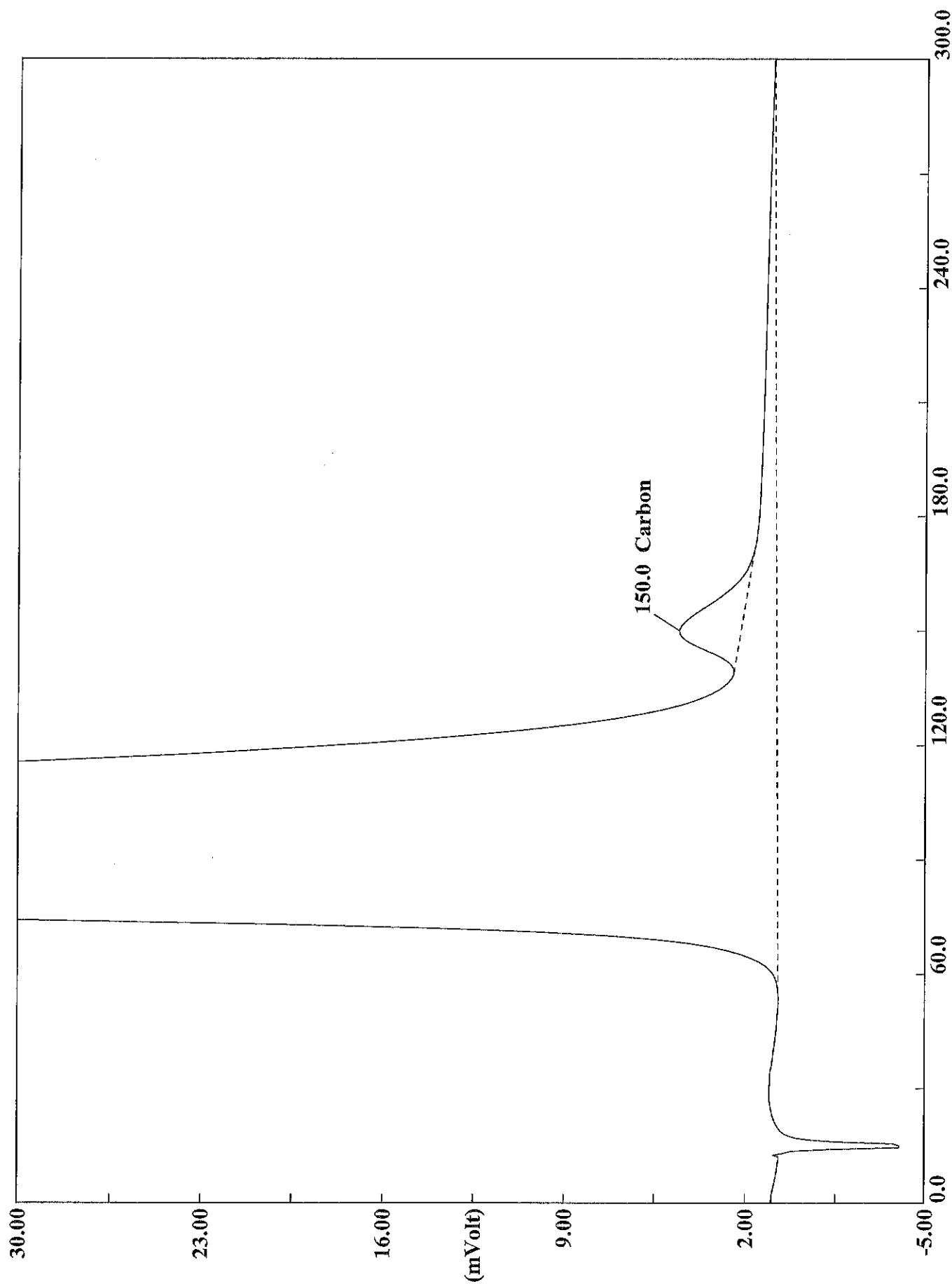
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314058.DAT

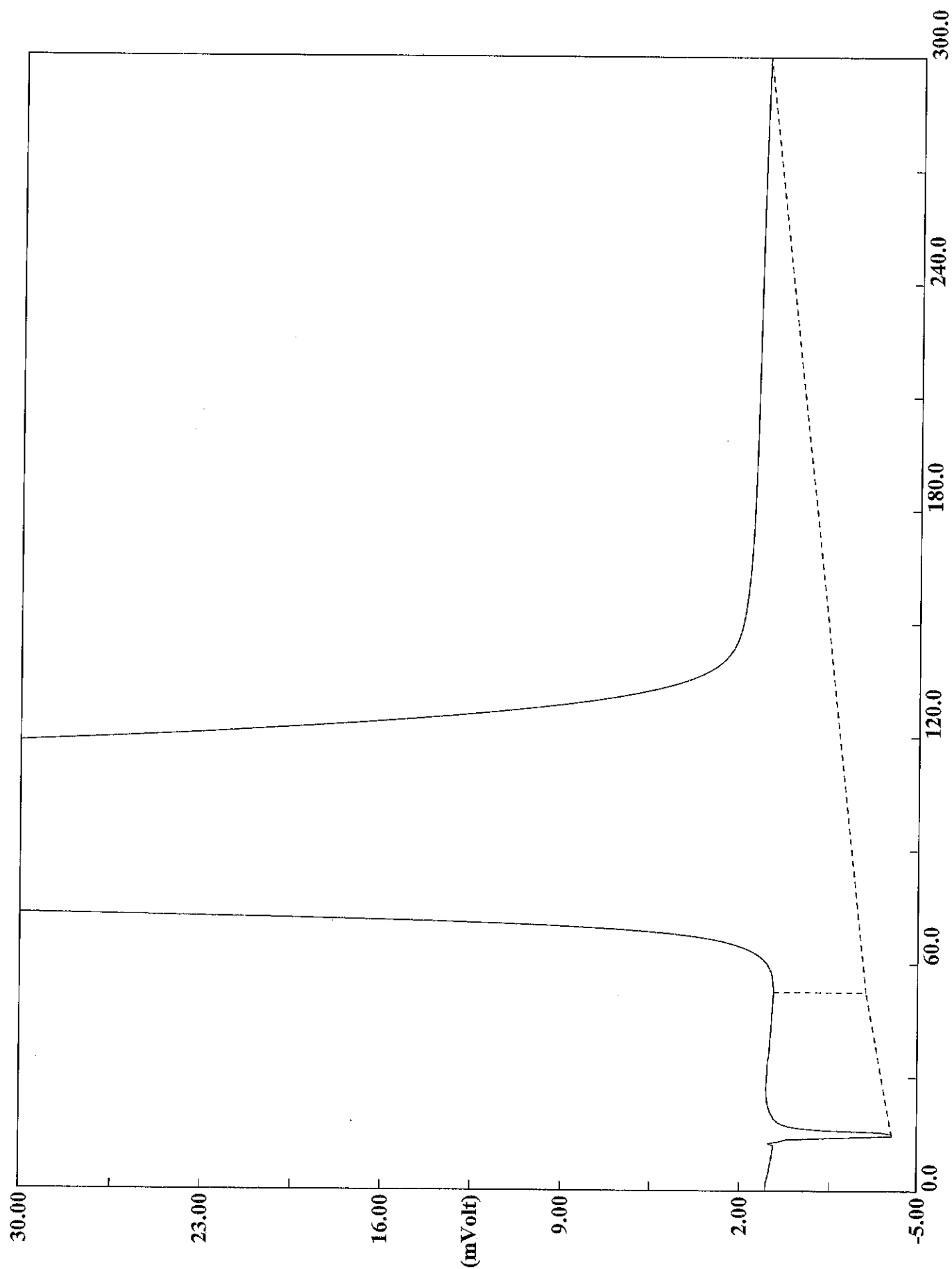
Sample name :180-37686-c-1 Analysed :10/23/2014 10:56

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314059.DAT  
Sample name :180-37686-c-1 Analysed :10/23/2014 11:01

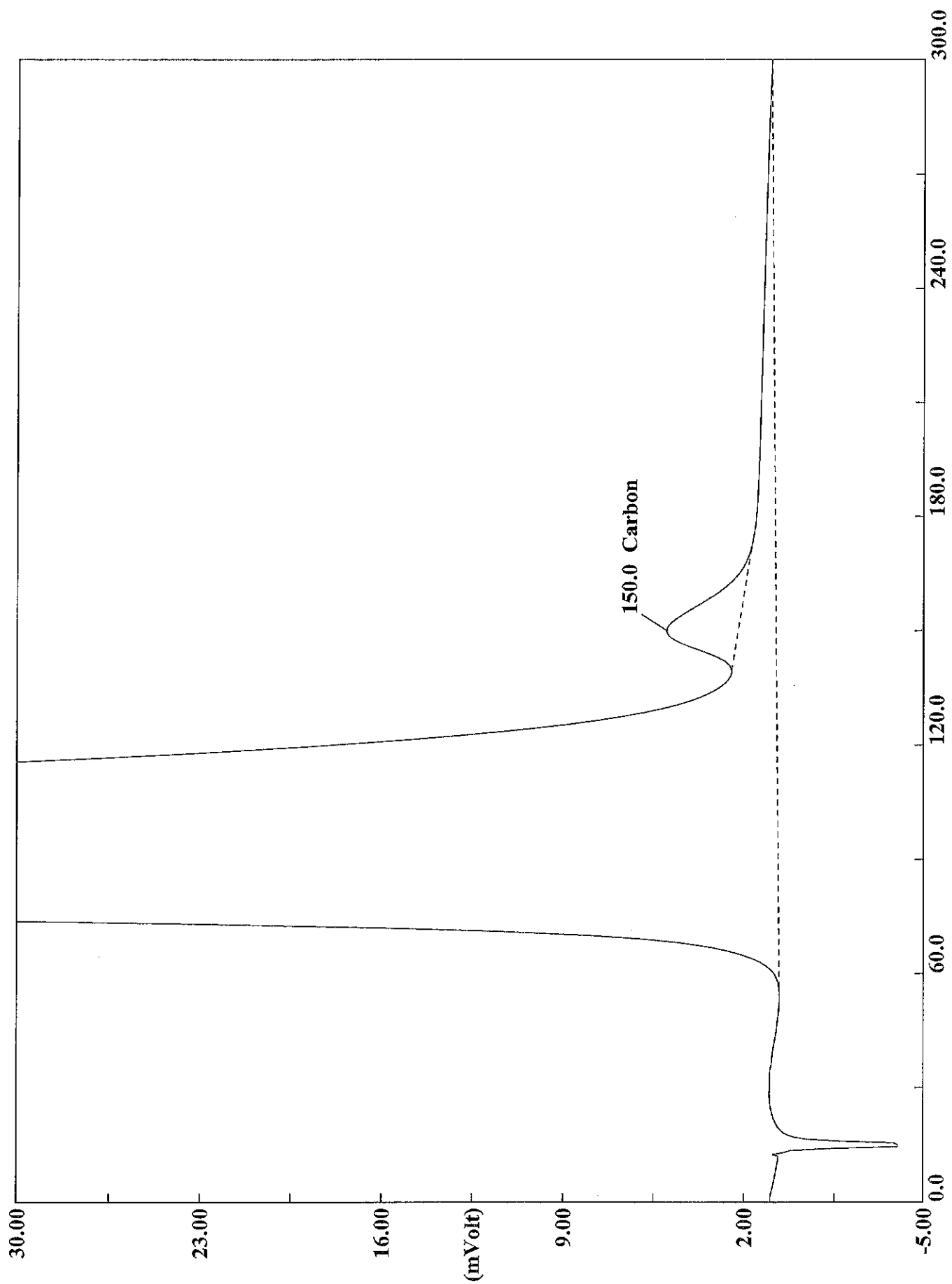
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314060.DAT

Sample name :rinse Analysed :10/23/2014 11:06

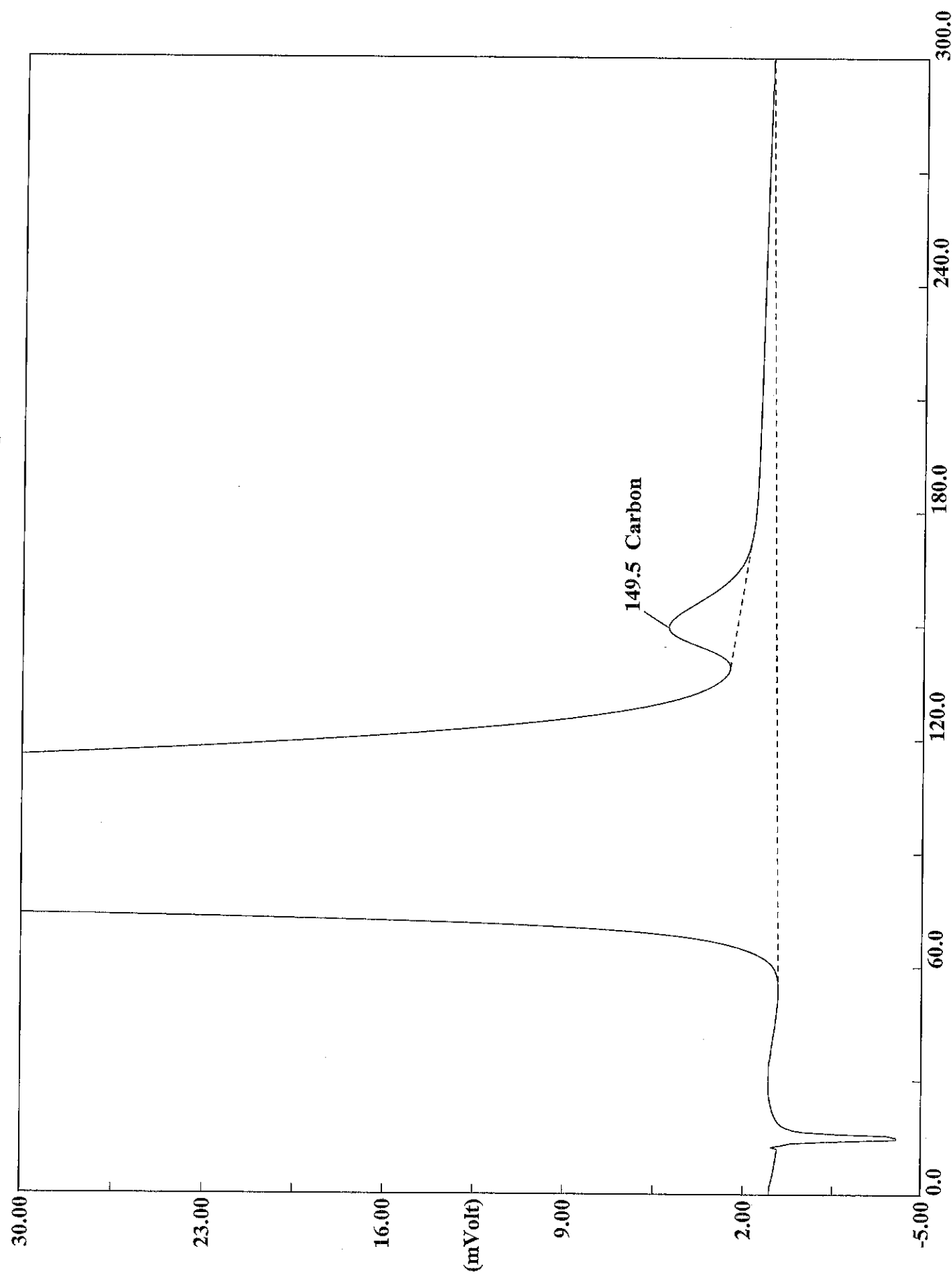
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314061.DAT

Sample name :180-37686-c-2 Analysed :10/23/2014 11:11

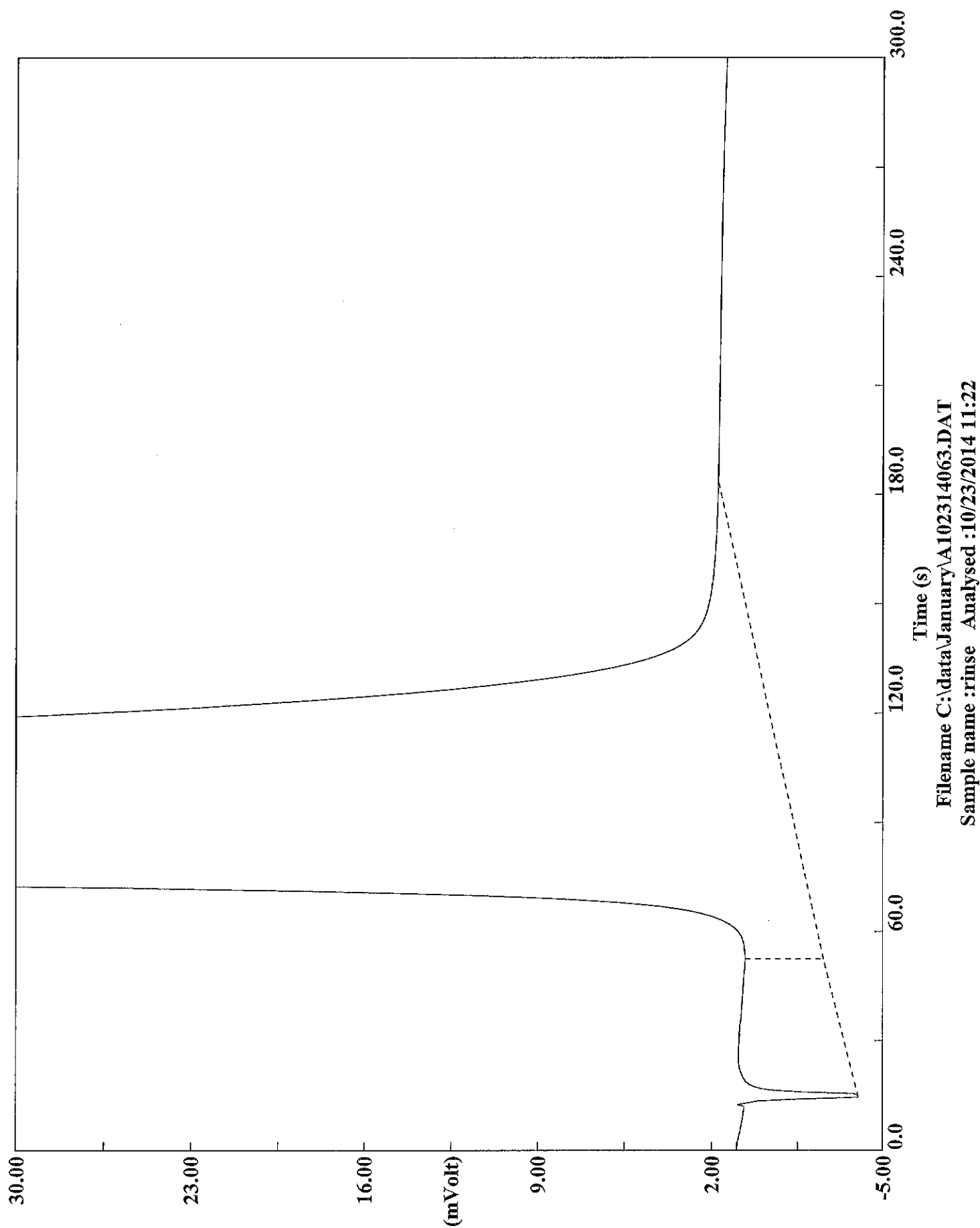
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314062.DAT

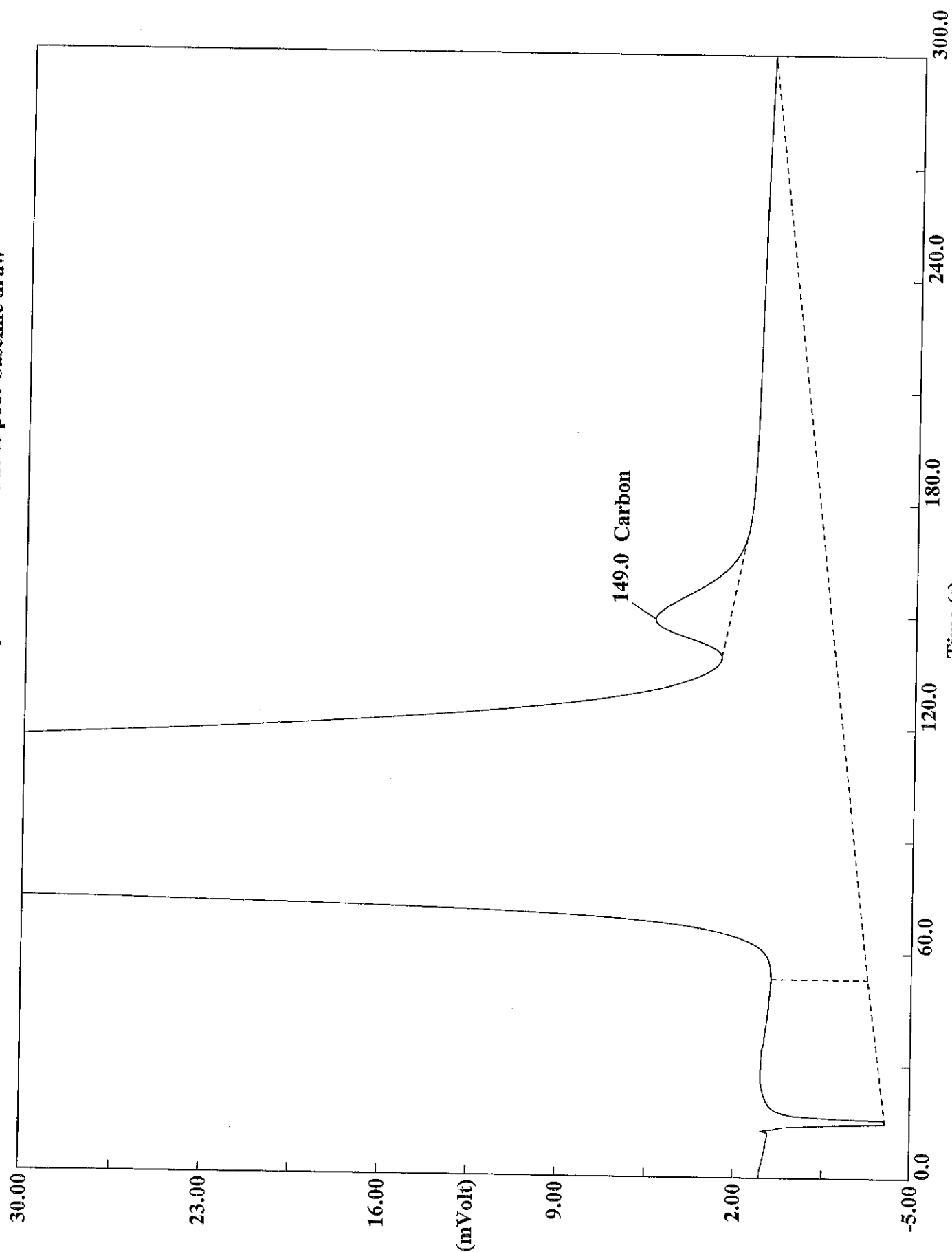
Sample name :180-37686-c-2 Analysed :10/23/2014 11:17

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

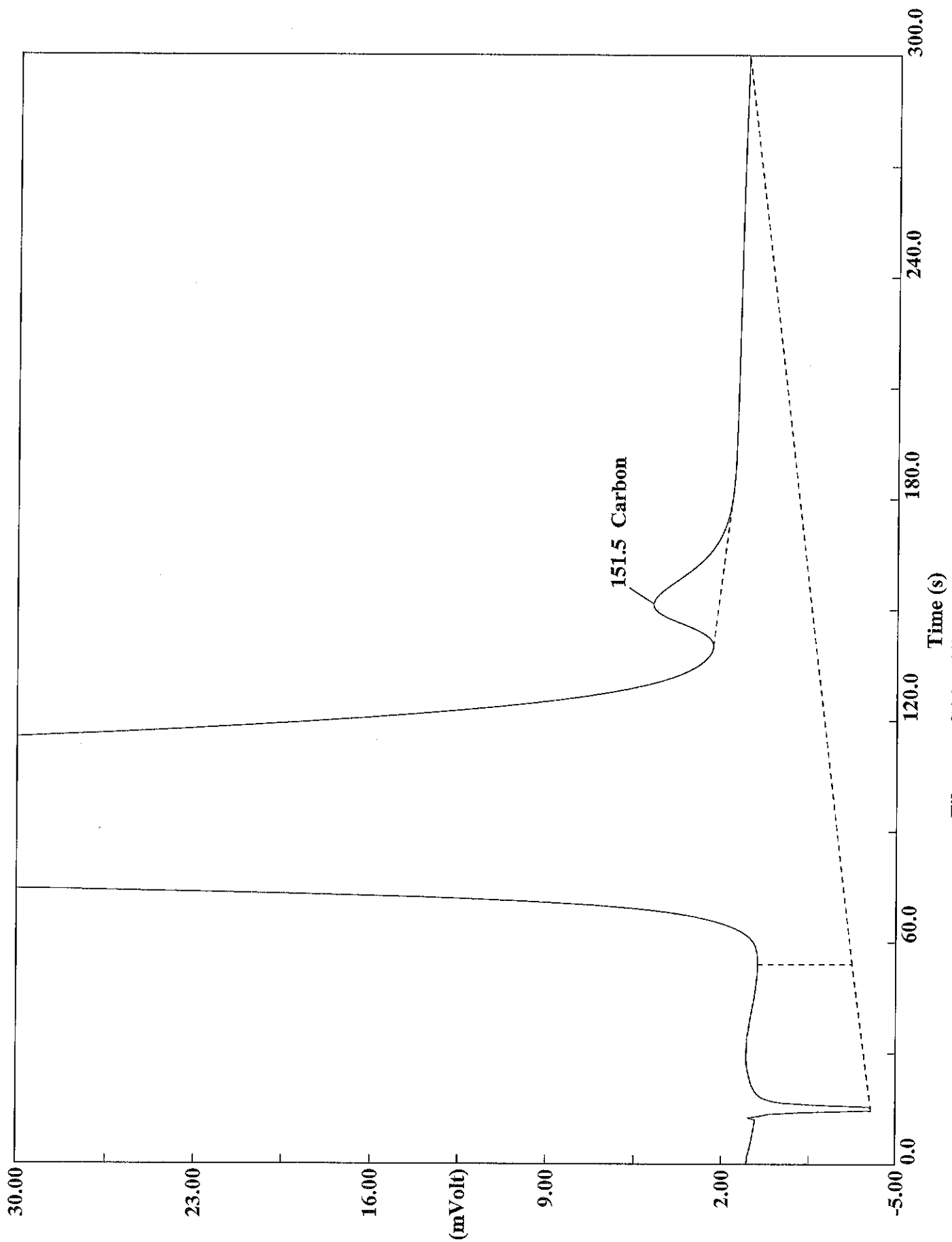


Filename C:\data\January\A102314063.DAT  
Sample name :rinse Analysed :10/23/2014 11:22

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



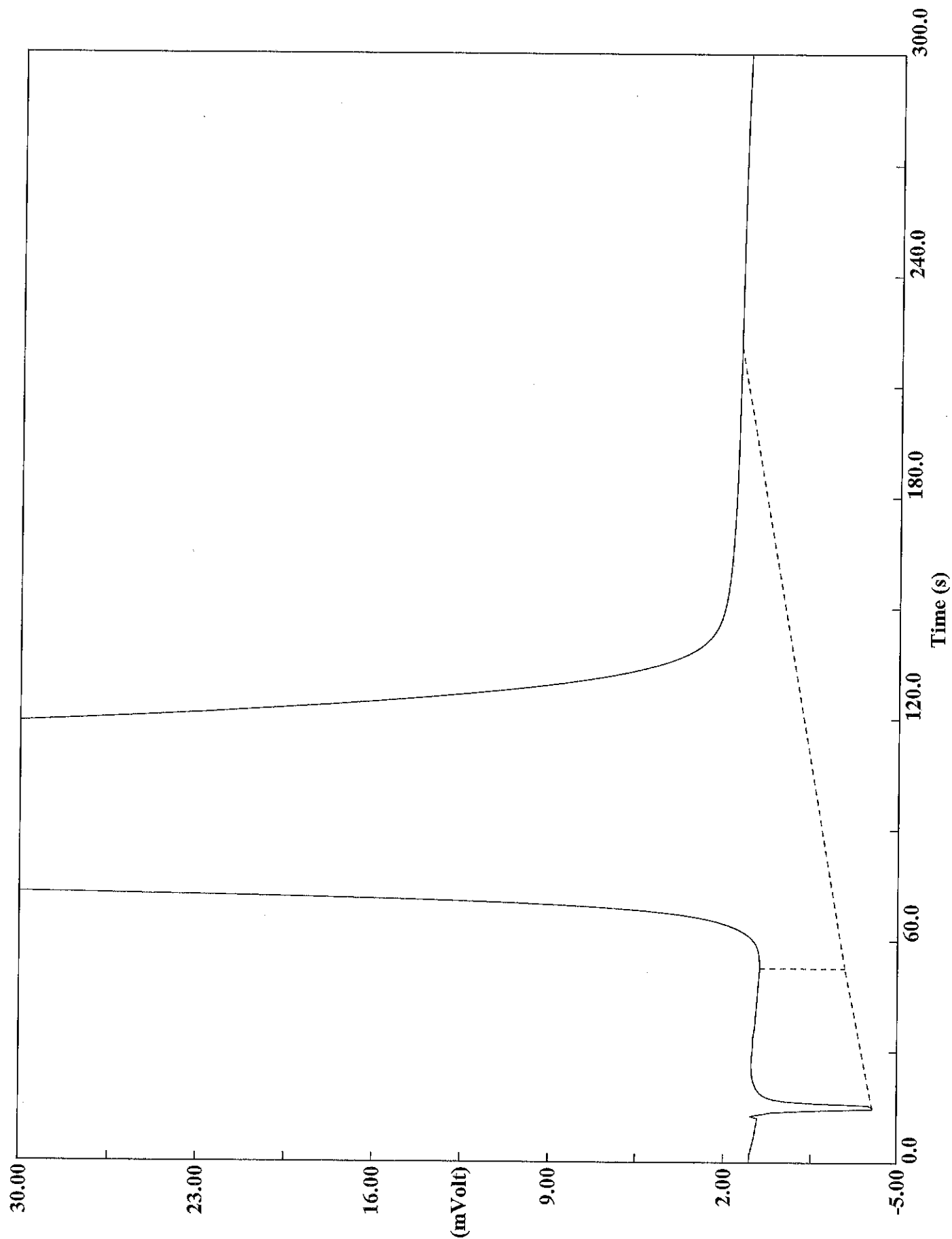
Filename C:\data\January\A102314064.DAT  
Sample name :180-37686-c-3 Analysed :10/23/2014 11:27



Filename C:\data\January\A102314065.DAT  
Sample name :180-37686-c-3 Analysed :10/23/2014 11:32

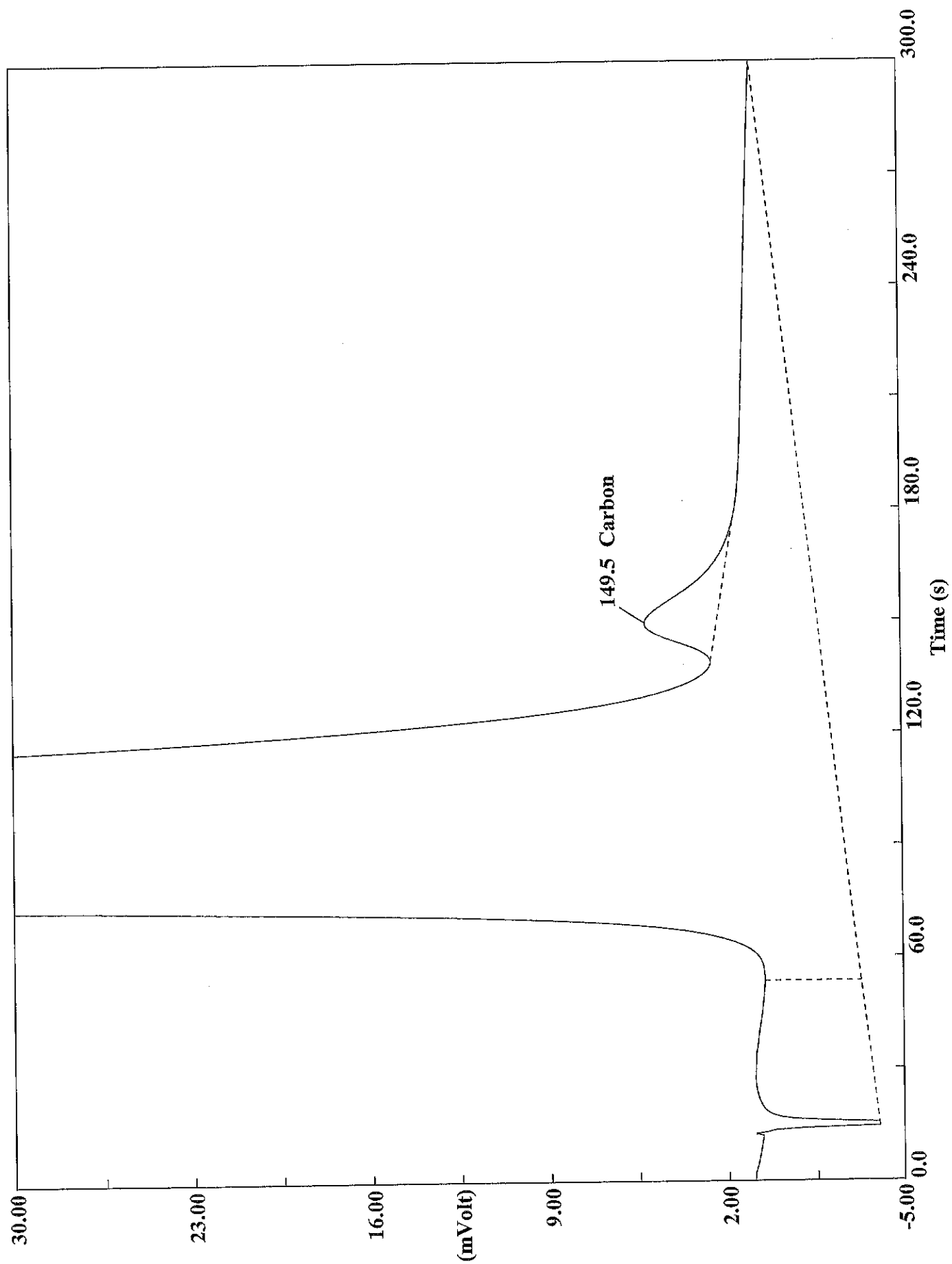


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

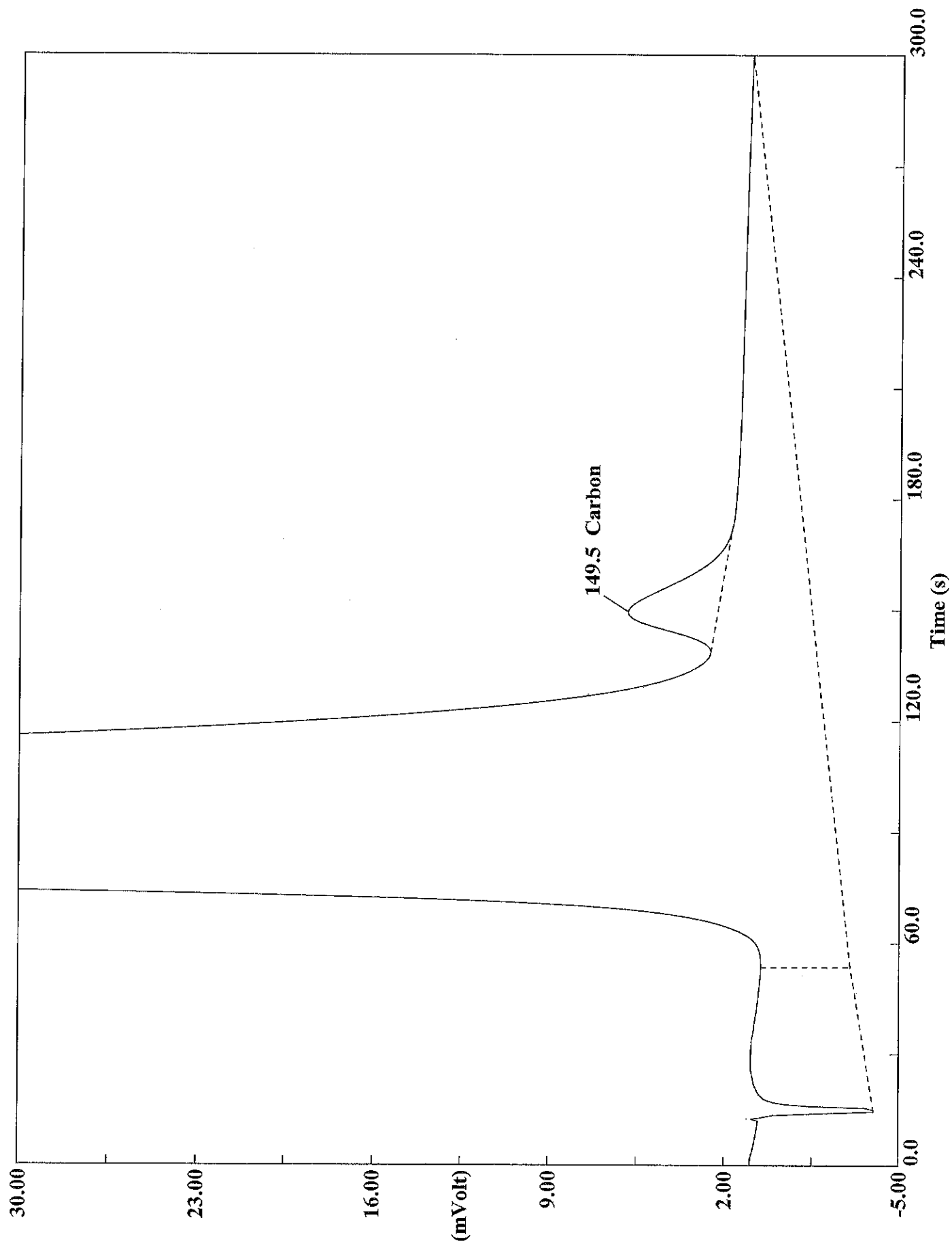


Filename C:\data\January\A102314066.DAT  
Sample name :rinse Analysed :10/23/2014 11:38

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



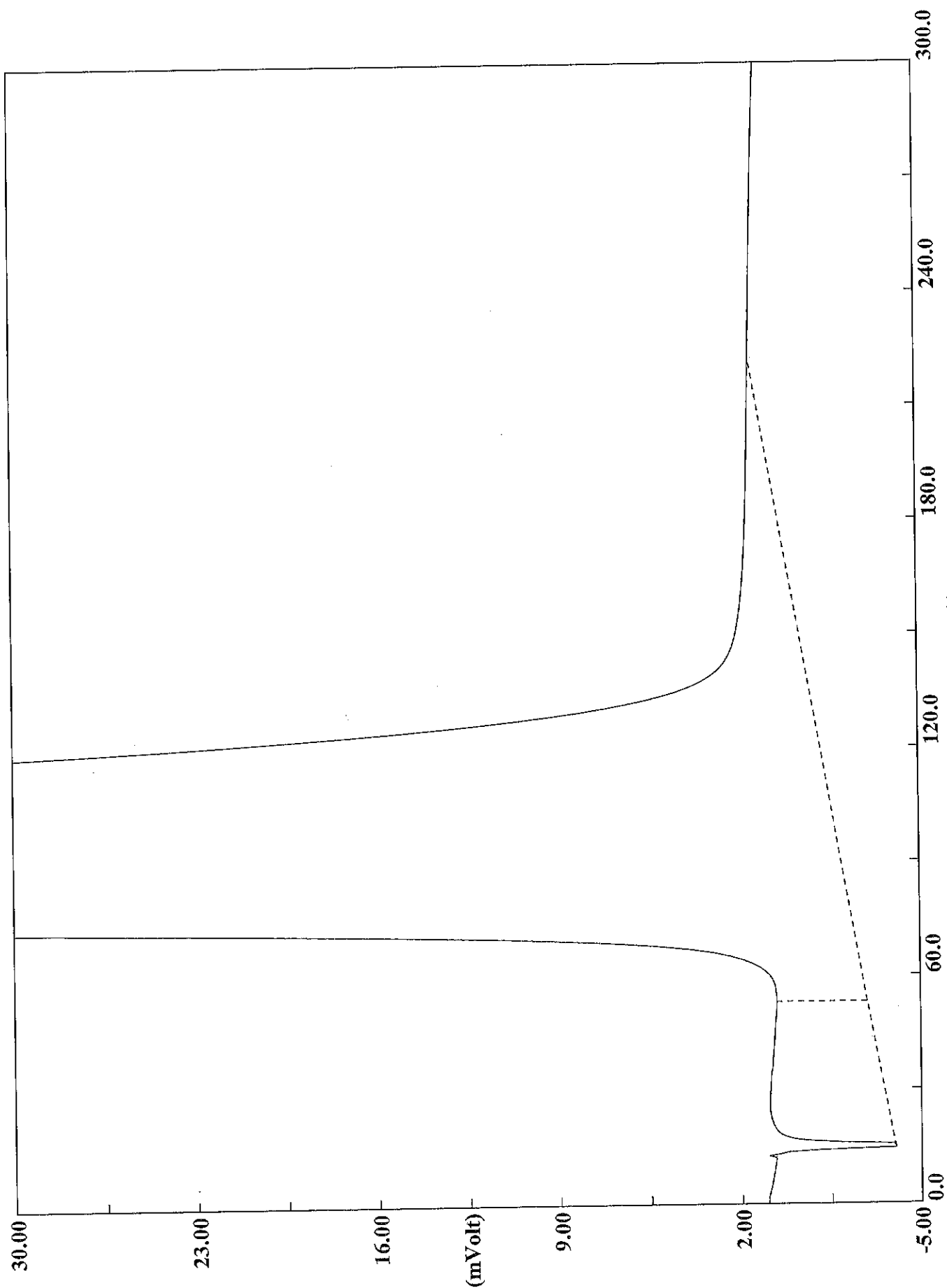
Filename C:\data\January\A102314067.DAT  
Sample name :180-37686-c-5 Analysed :10/23/2014 11:43



Filename C:\data\January\A102314068.DAT

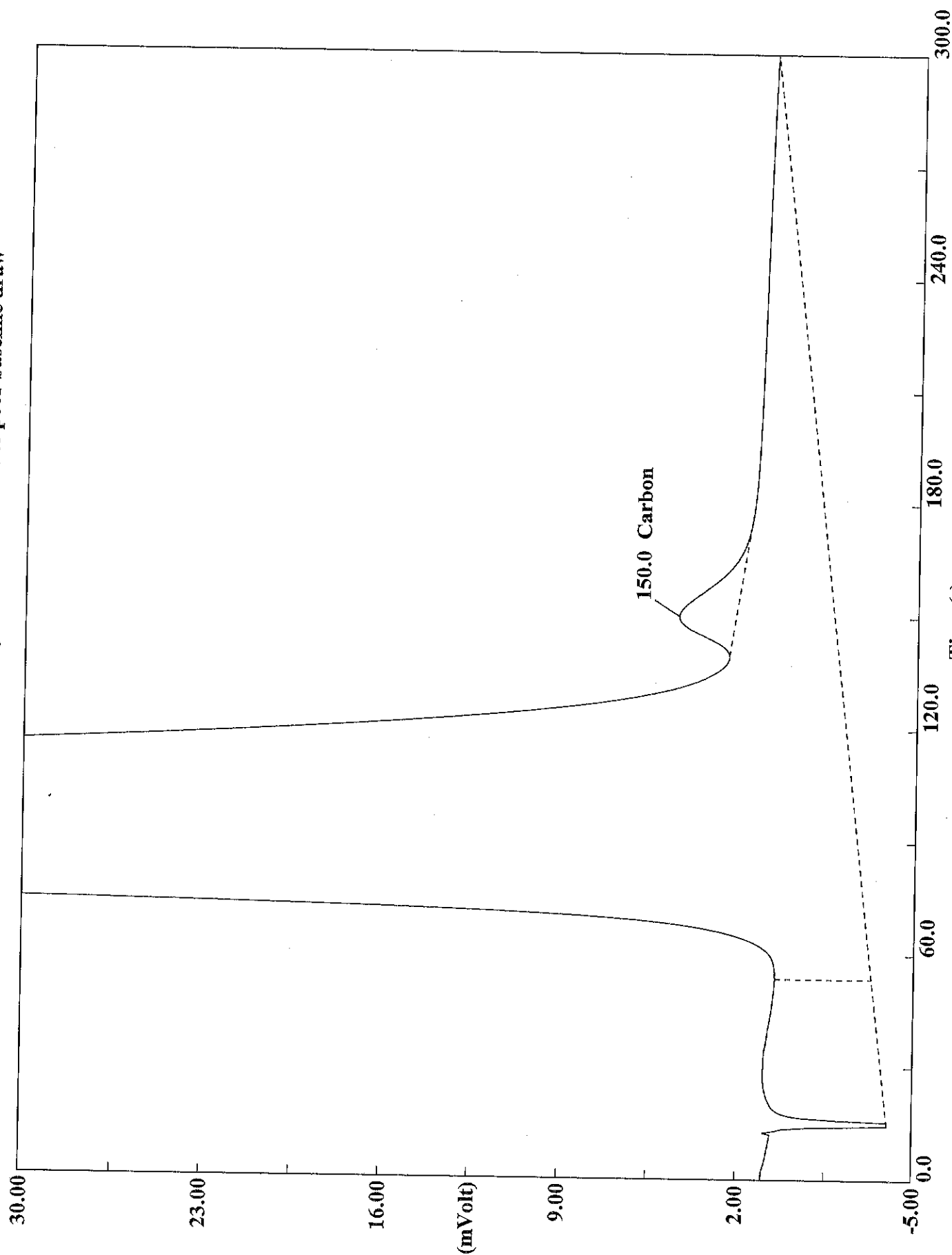
Sample name :180-37686-c-5 Analysed :10/23/2014 11:48

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314069.DAT  
Sample name :rinse Analysed :10/23/2014 11:53

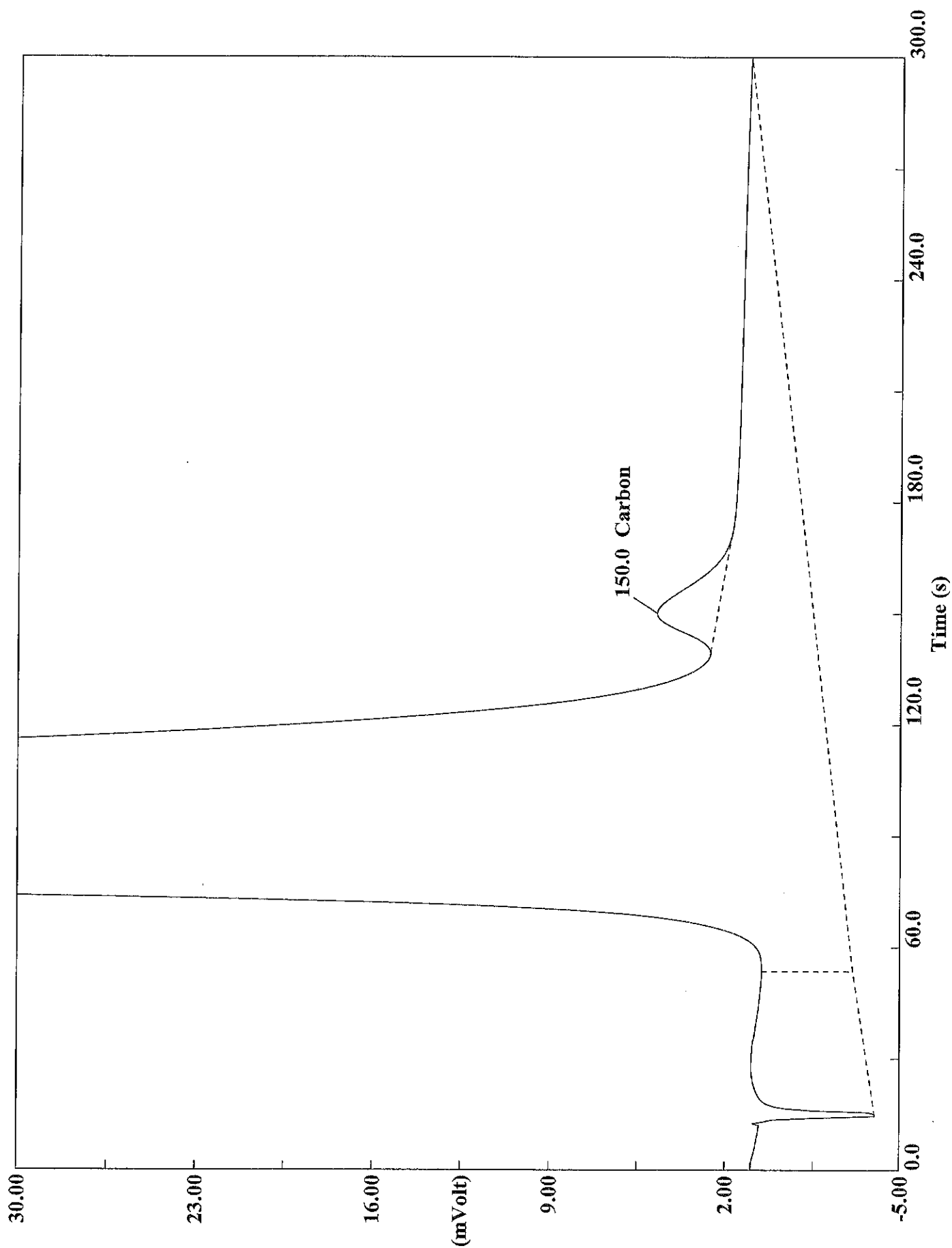
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314070.DAT

Sample name :180-37686-c-6 Analysed :10/23/2014 11:59

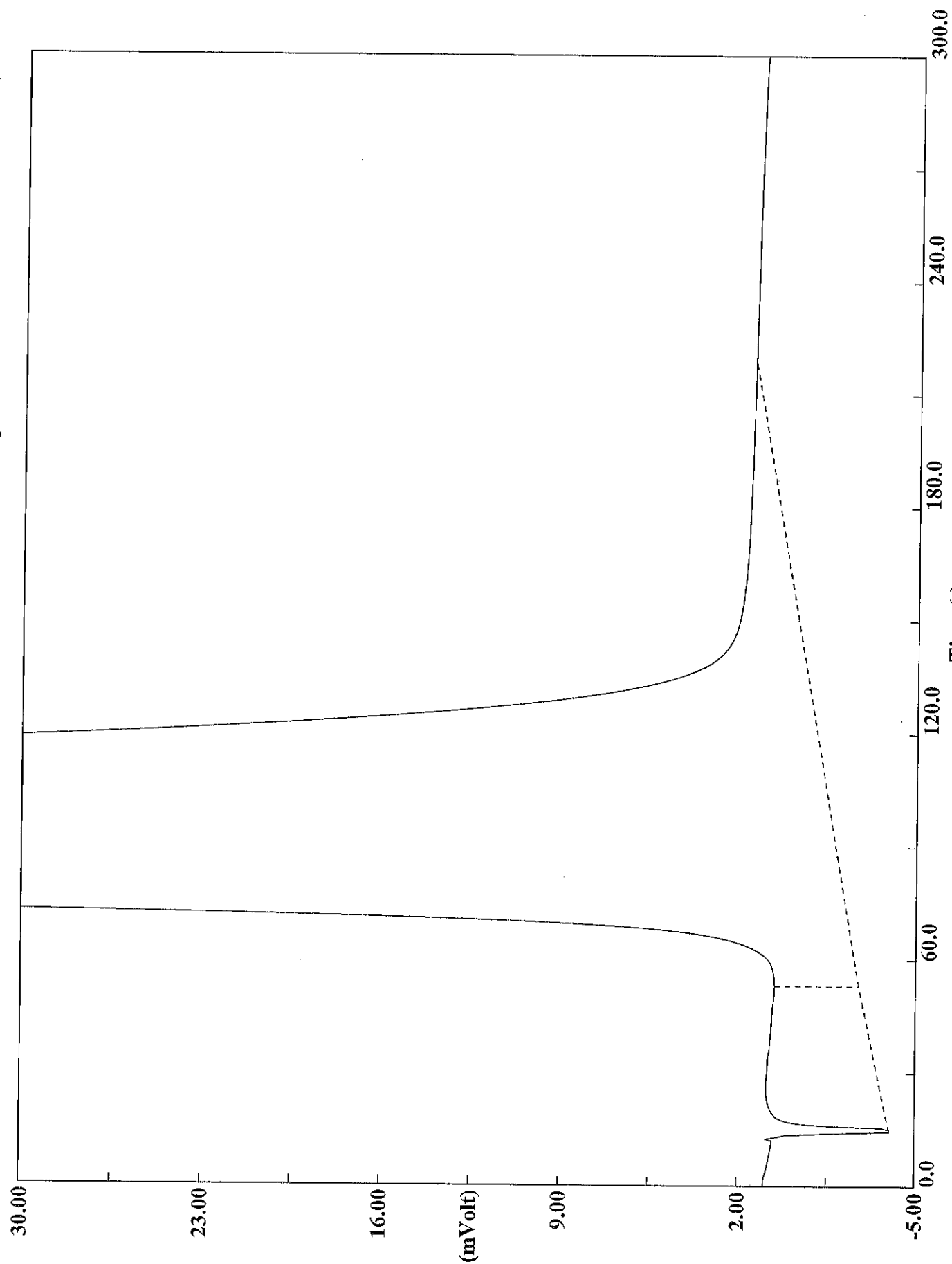
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



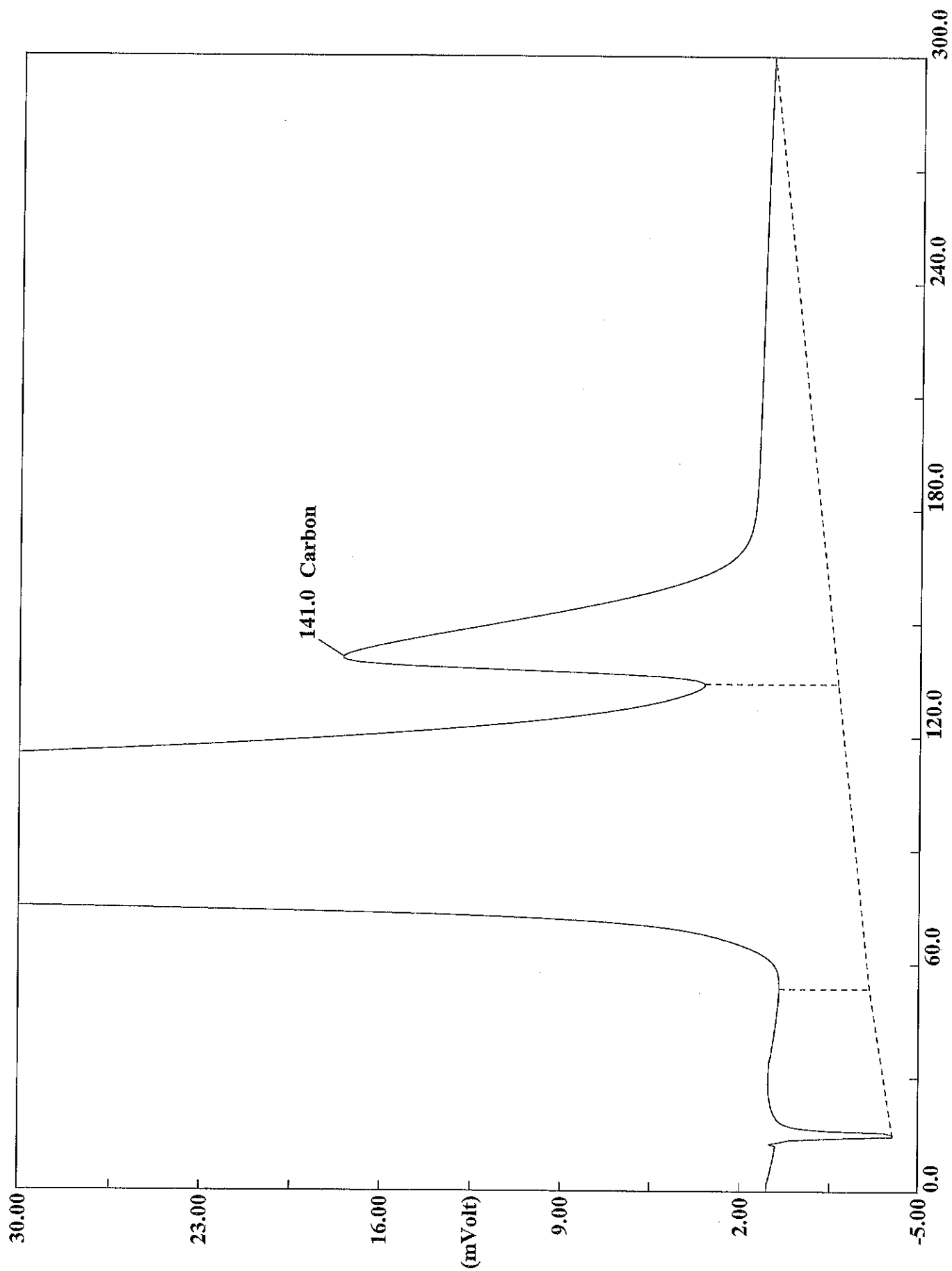
Filename C:\data\January\A102314071.DAT

Sample name :180-37686-c-6 Analysed :10/23/2014 12:04

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



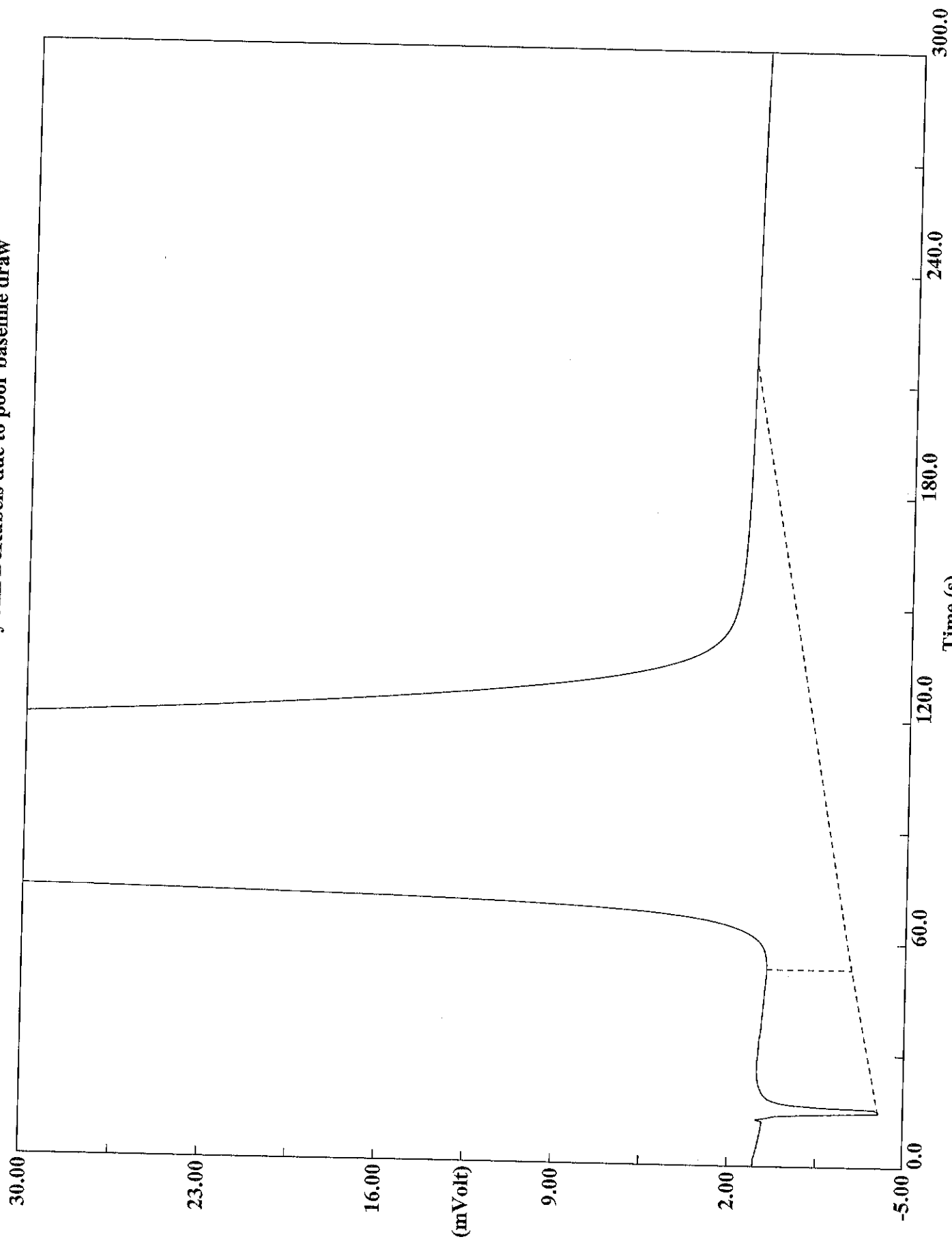
Filename C:\data\January\A102314072.DAT  
Sample name :rinse Analysed :10/23/2014 12:09



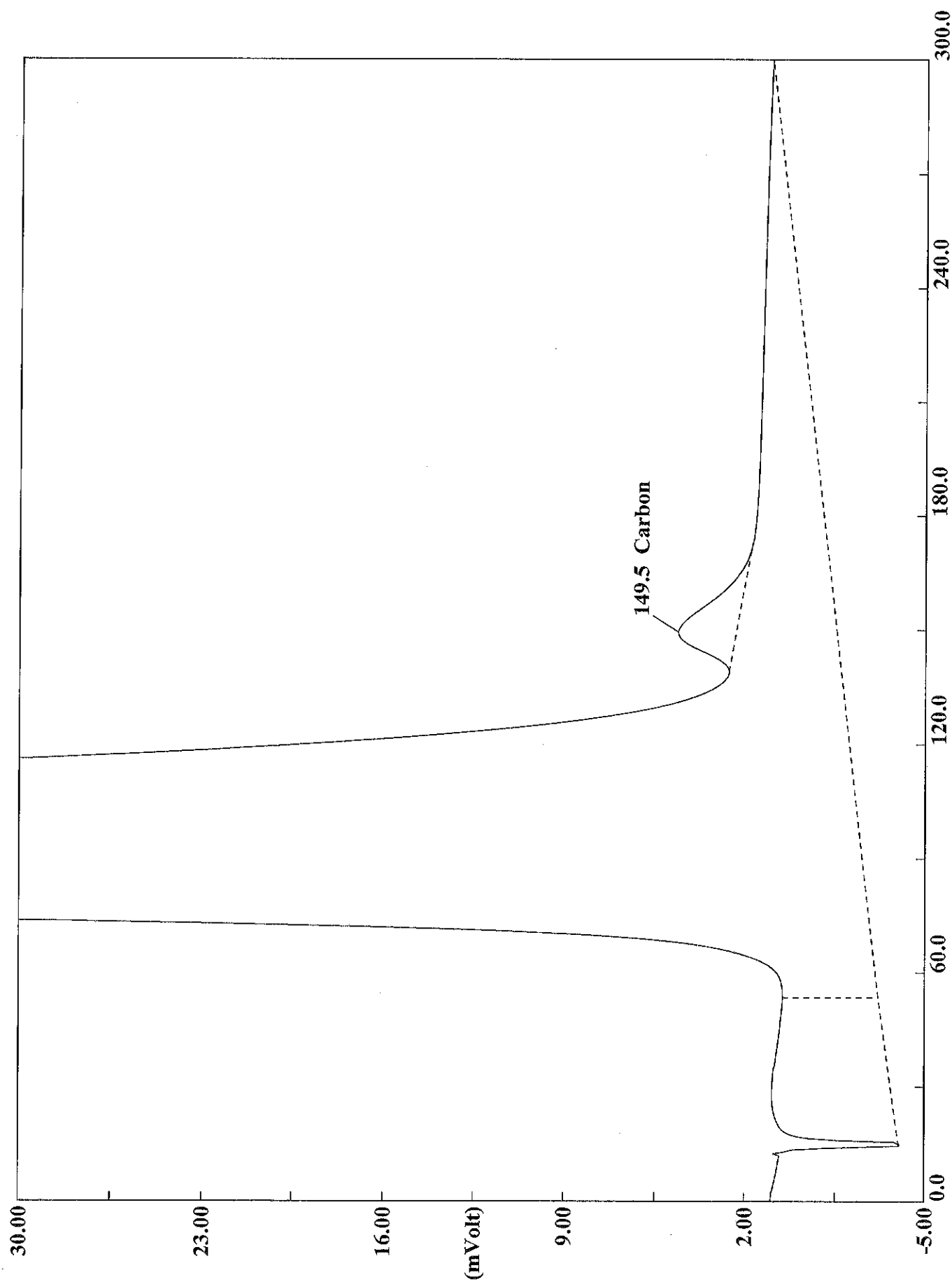
Filename C:\data\January\A102314073.DAT  
Sample name :ccv Analysed :10/23/2014 12:14



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



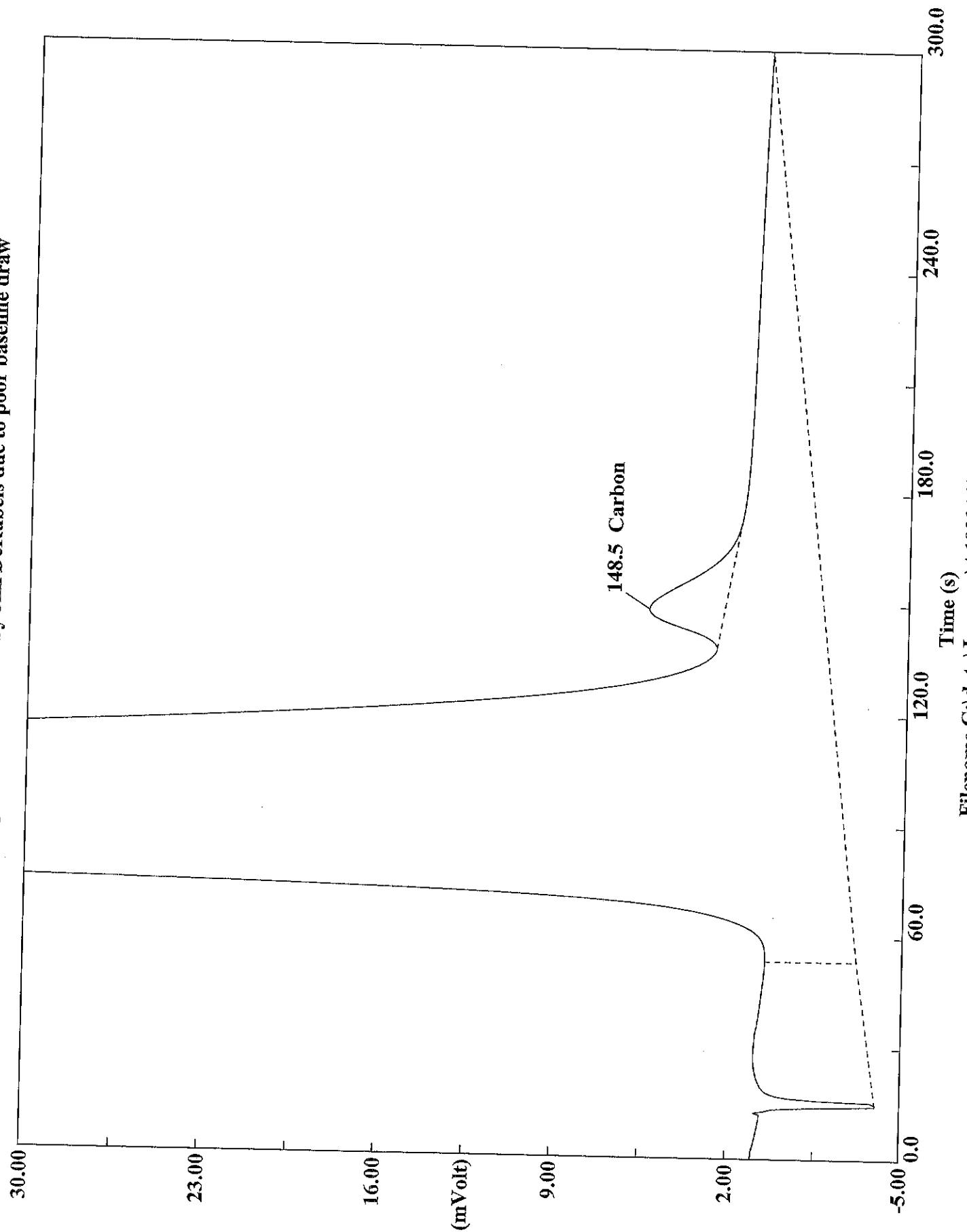
Filename C:\data\January\A102314074.DAT  
Sample name :ccb Analysed :10/23/2014 12:20



Filename C:\data\January\A102314075.DAT

Sample name :180-37686-c-7 Analysed :10/23/2014 12:25

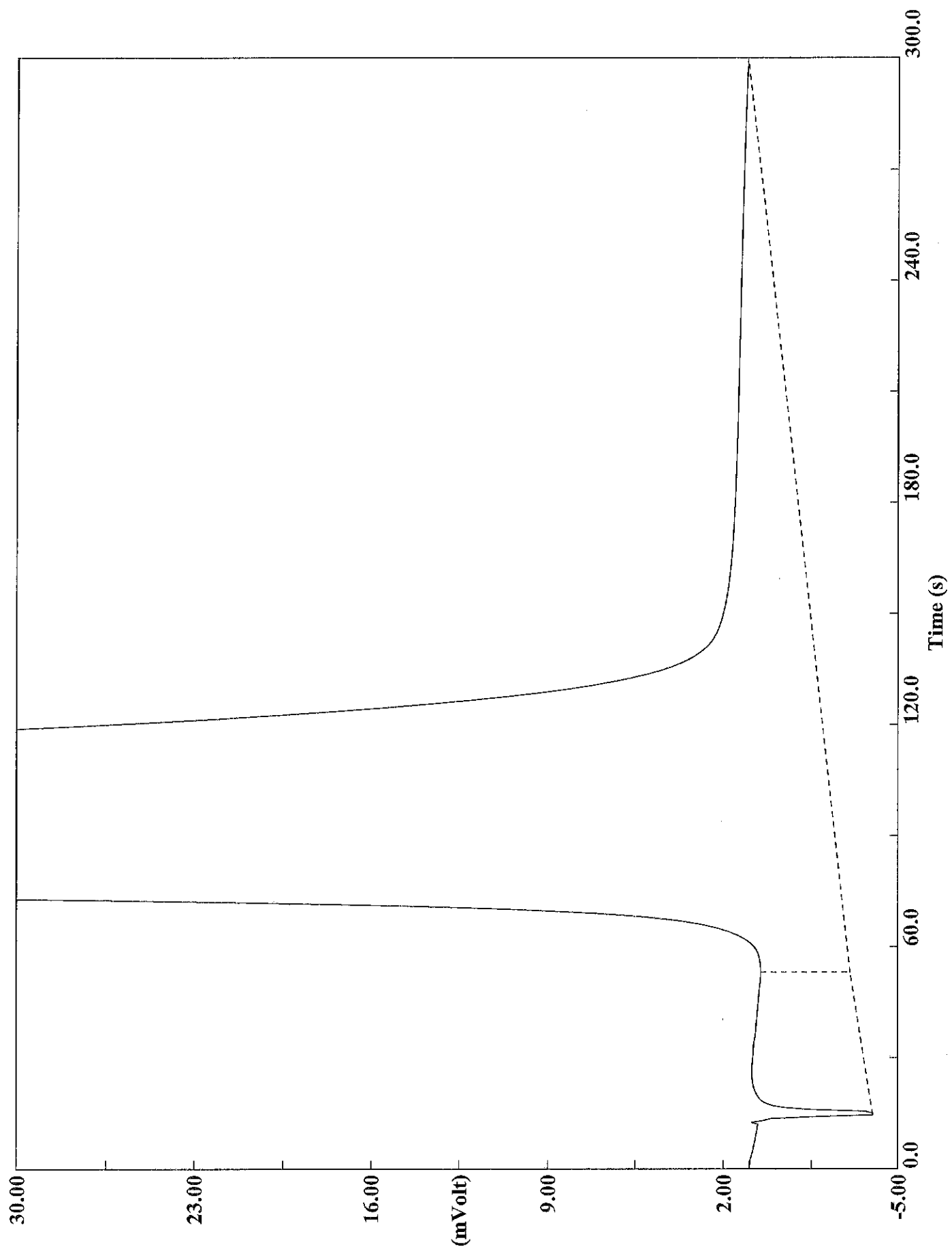
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314076.DAT

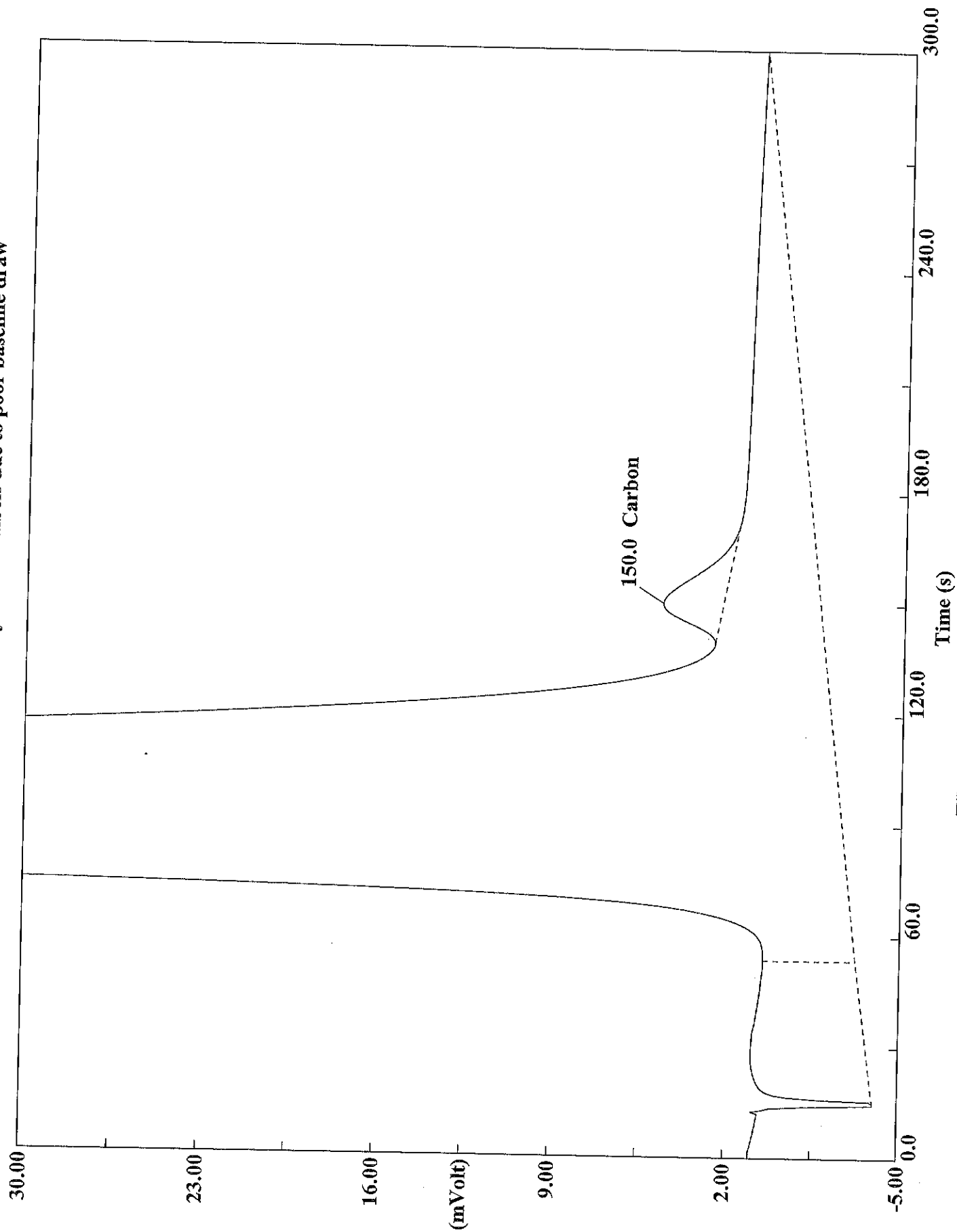
Sample name :180-37686-c-7 Analysed :10/23/2014 12:30

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314077.DAT  
Sample name :rinse Analysed :10/23/2014 12:35

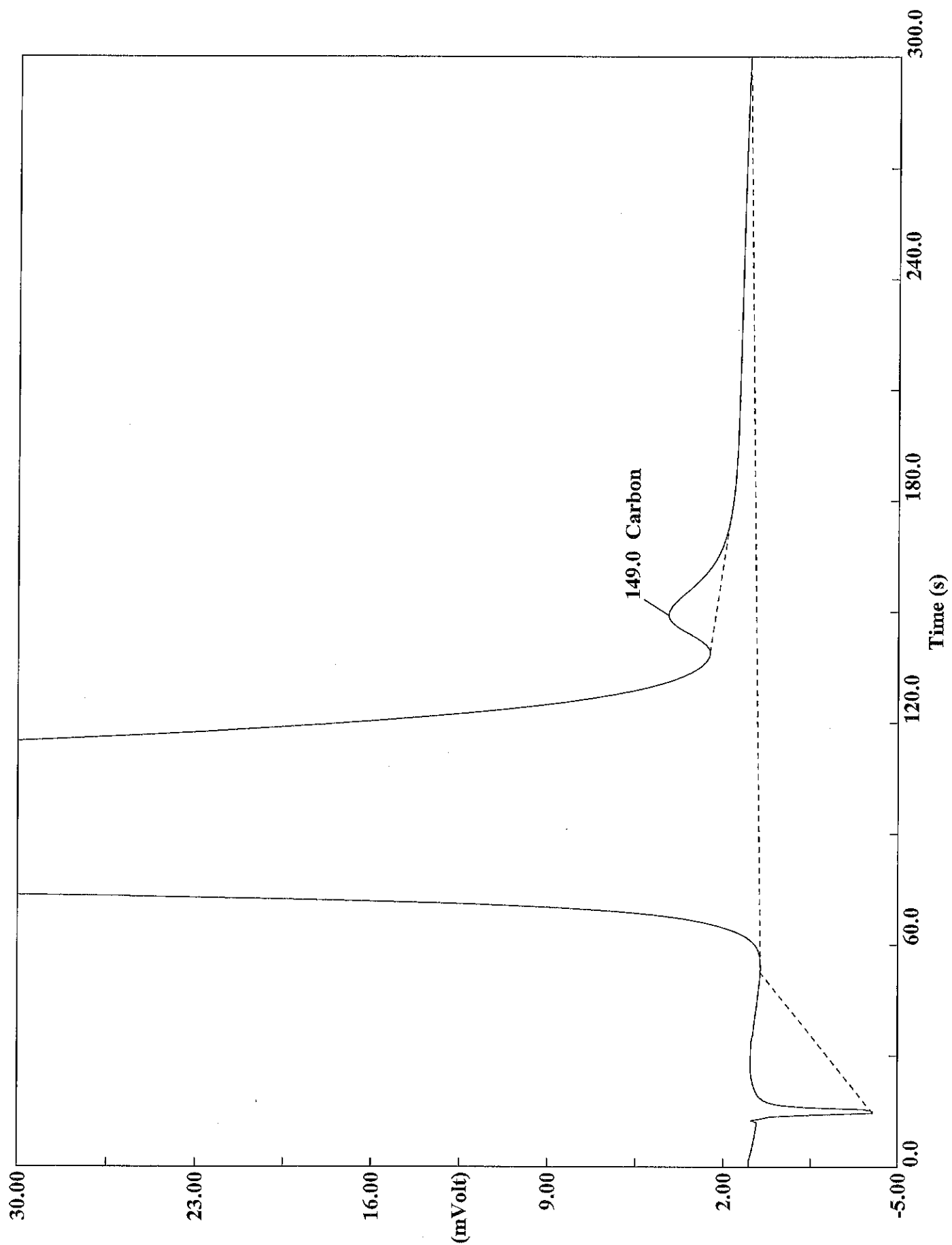
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314078.DAT

Sample name :180-37686-c-8 Analysed :10/23/2014 12:41

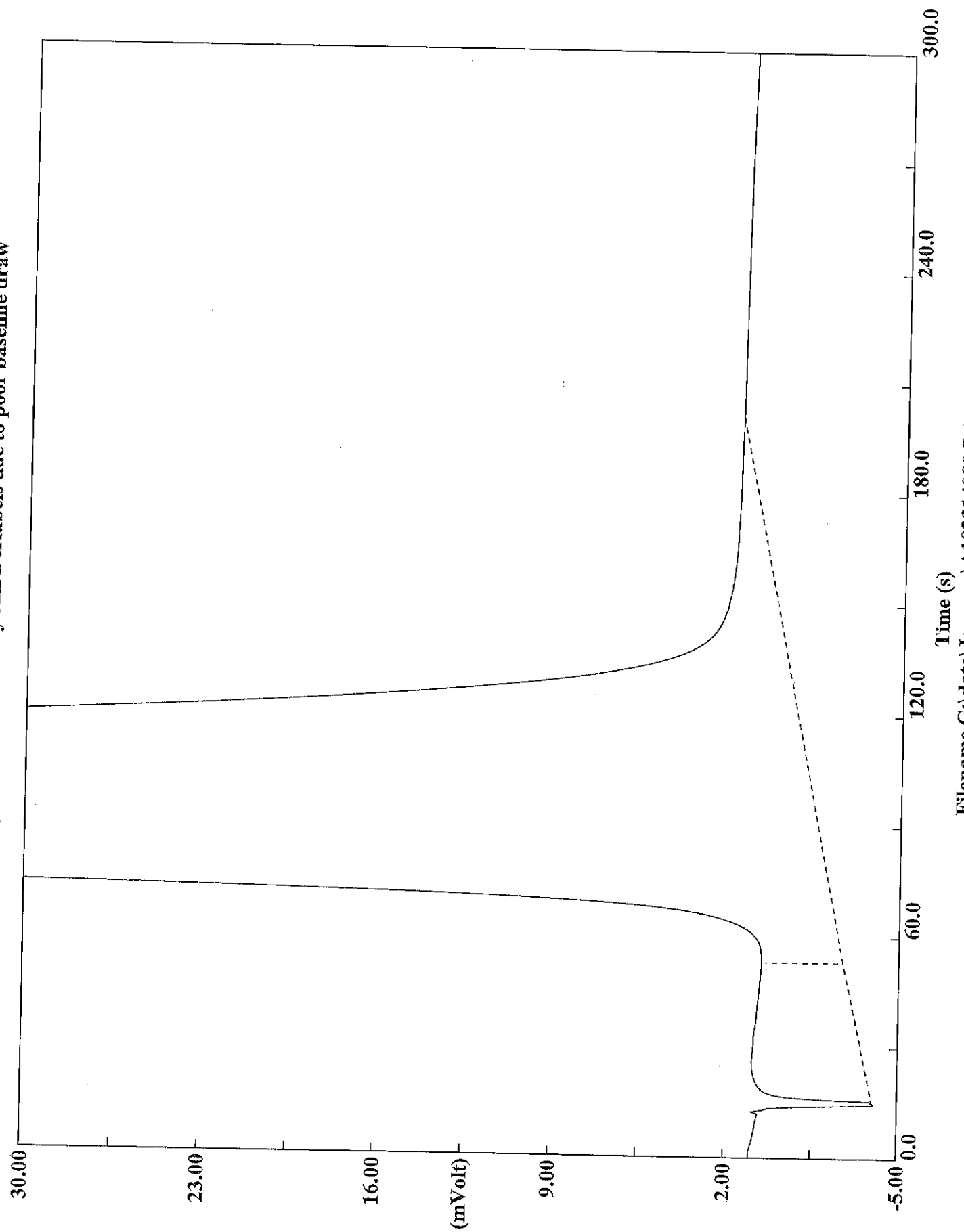
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314079.DAT

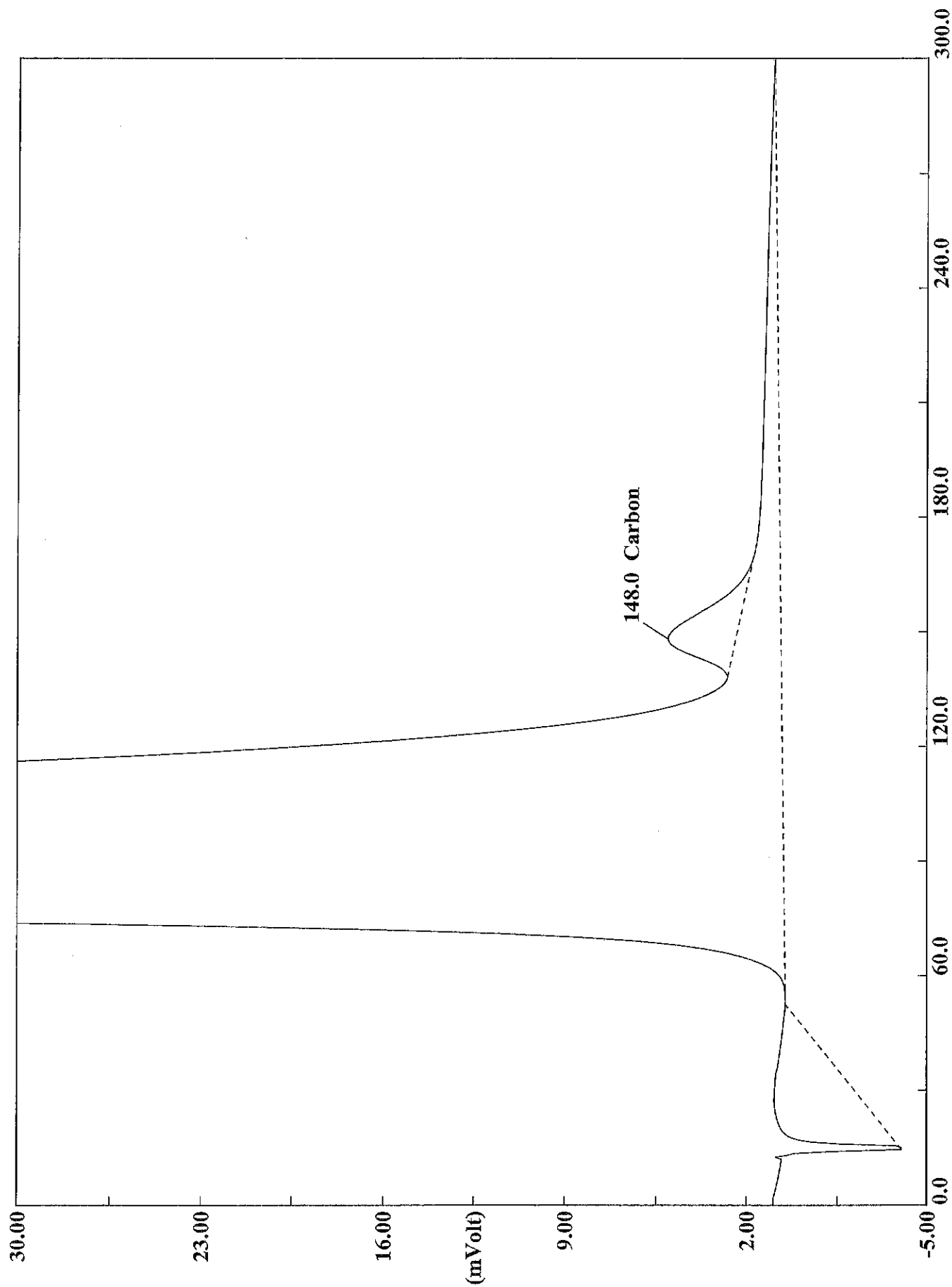
Sample name :180-37686-c-8 Analysed :10/23/2014 12:46

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314080.DAT  
Sample name :rinse Analysed :10/23/2014 12:51

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

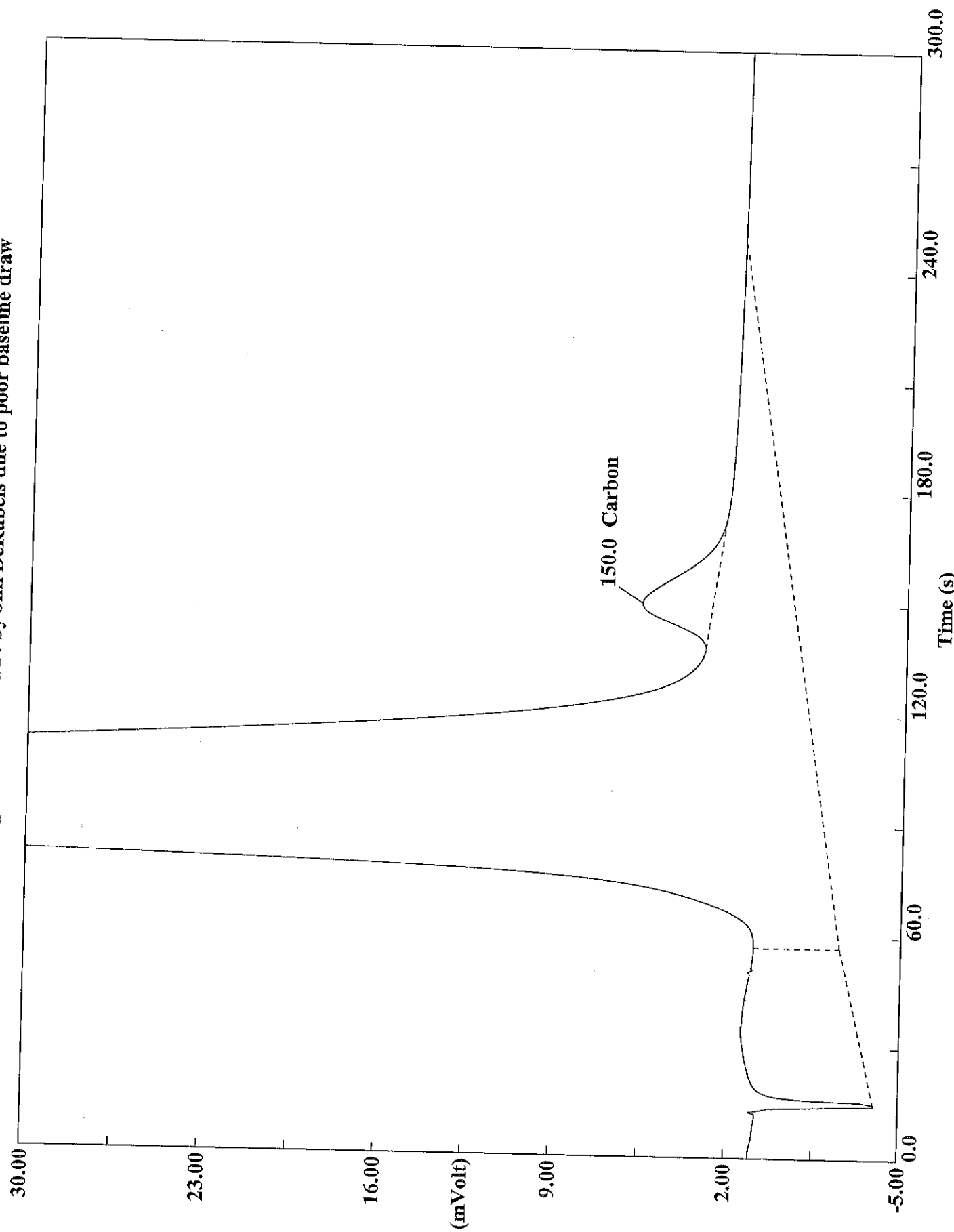


Filename C:\data\January\A102314081.DAT

Sample name :180-37686-c-9 Analysed :10/23/2014 12:56

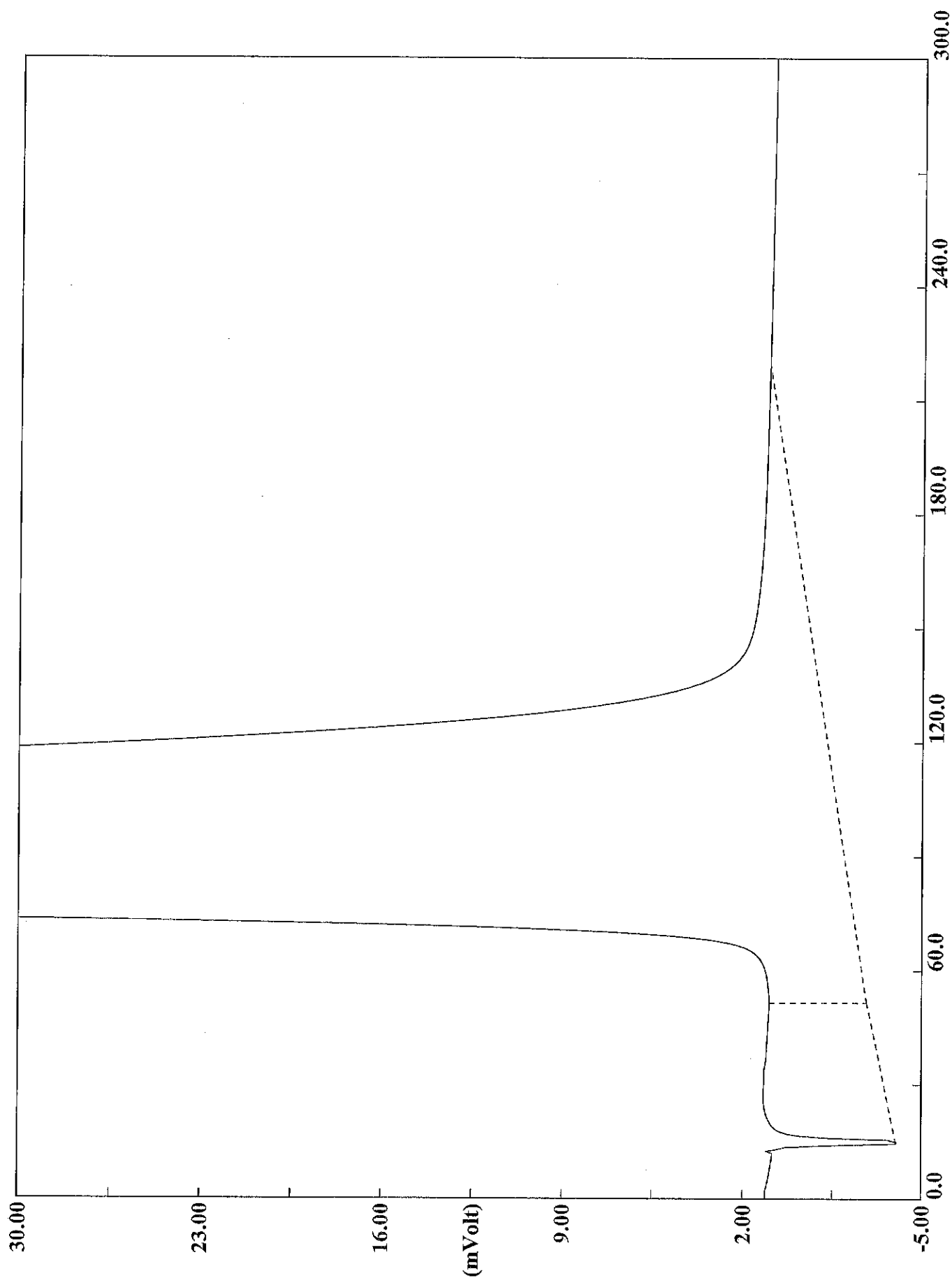


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



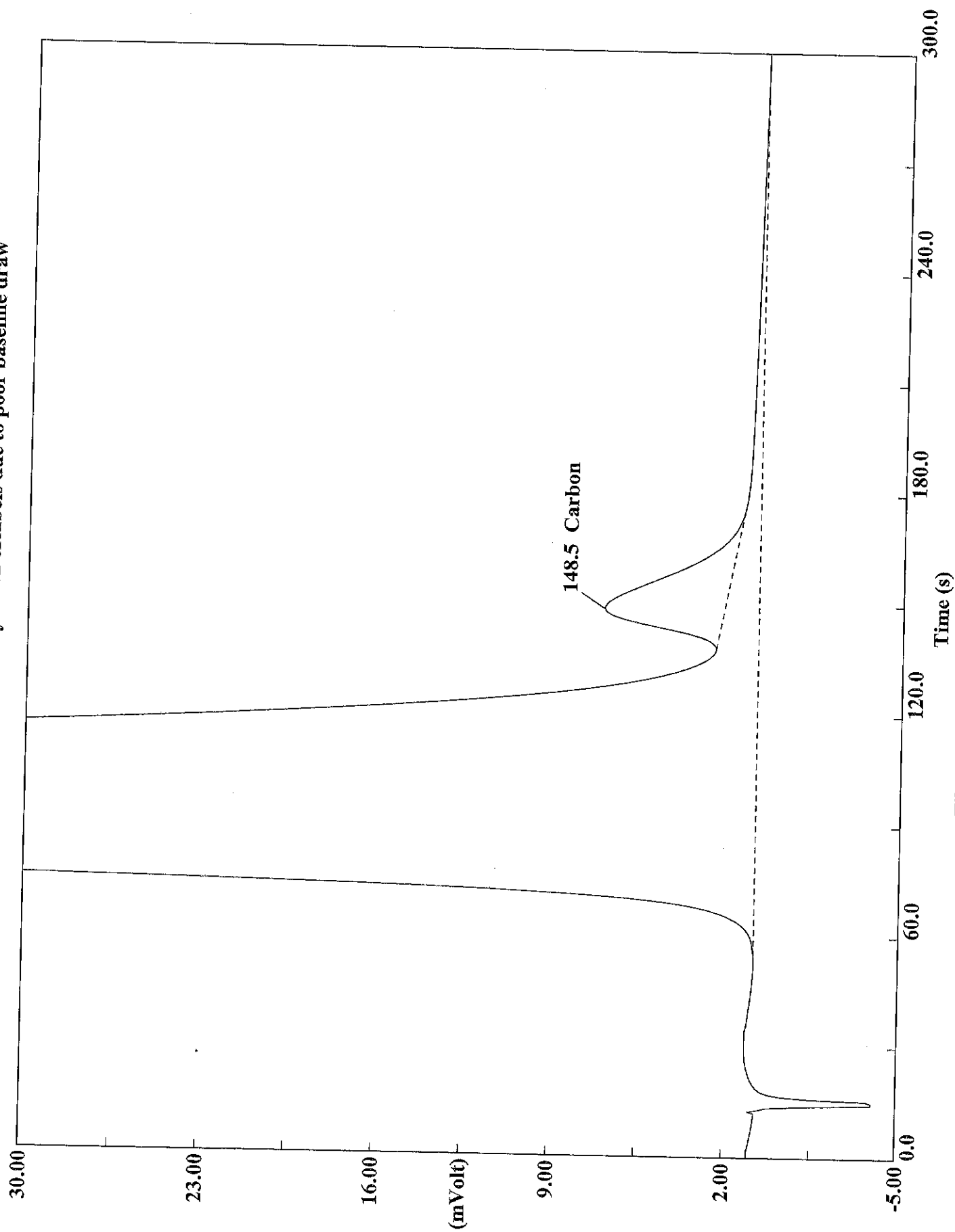
Filename C:\data\January\A102314082.DAT  
Sample name :180-37686-c-9 Analysed :10/23/2014 13:08

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



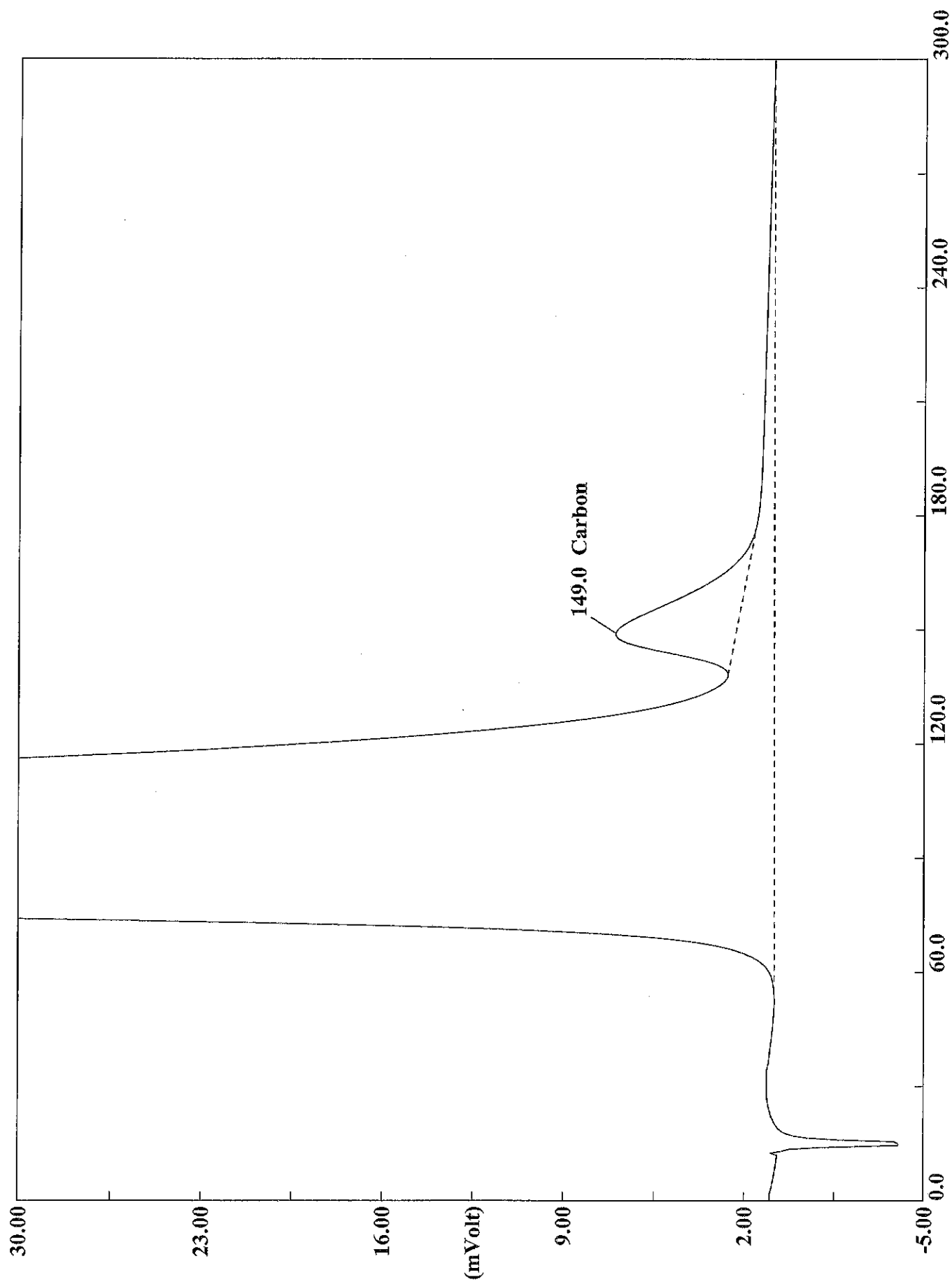
Filename C:\data\January\A102314083.DAT  
Sample name :rinse Analysed :10/23/2014 13:14

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314084.DAT

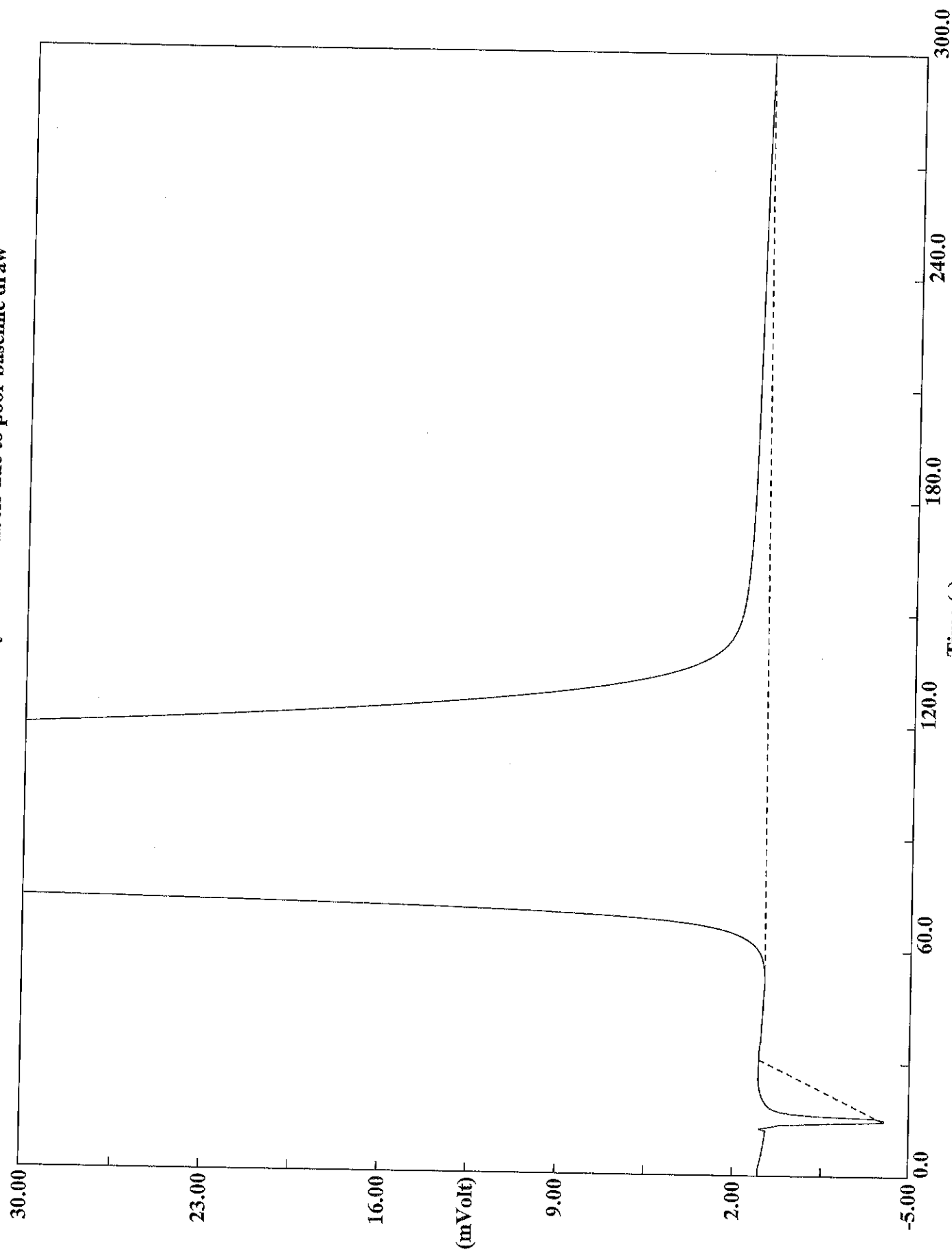
Sample name :180-37686-c-10 Analysed :10/23/2014 13:19



Filename C:\data\January\A102314085.DAT

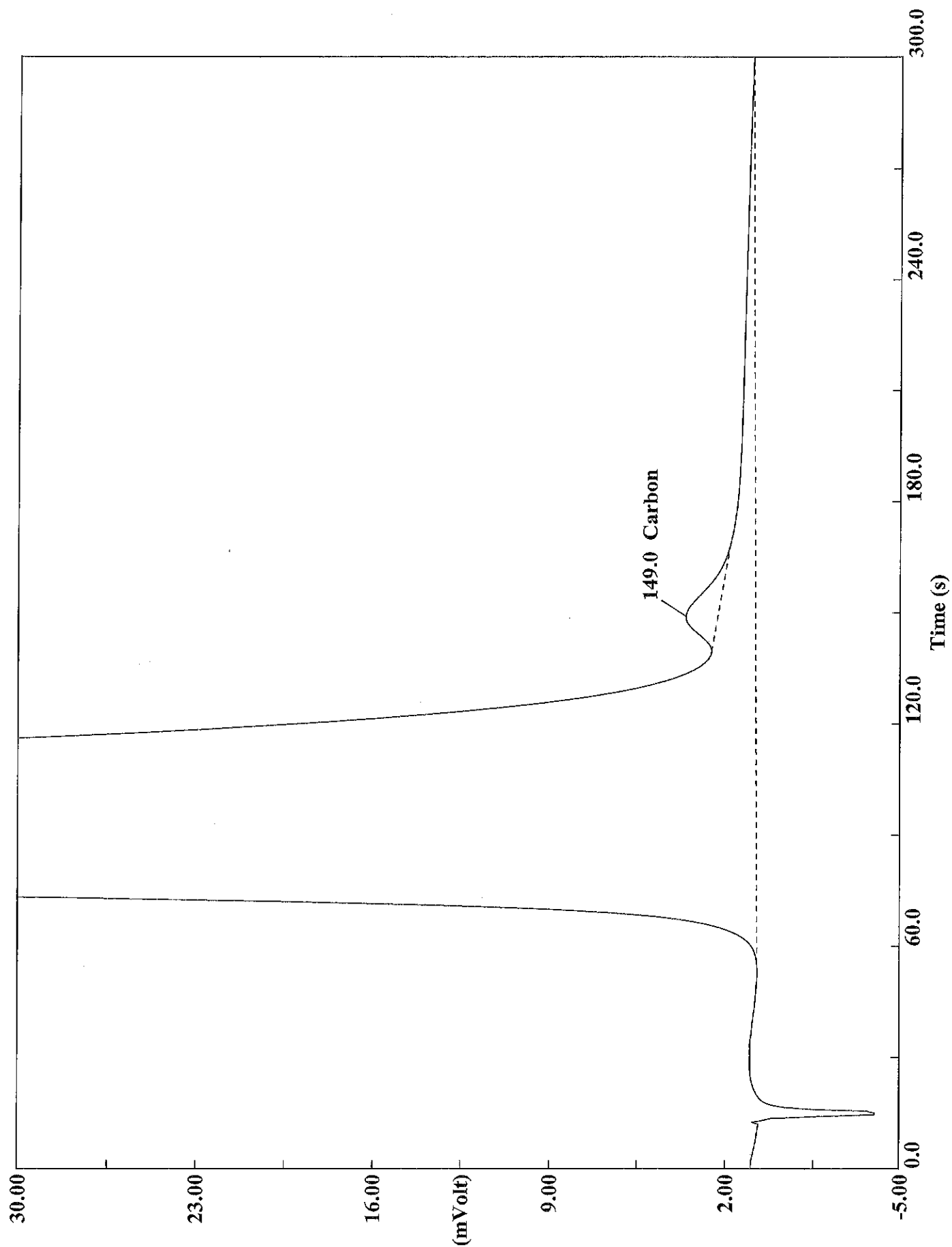
Sample name :180-37686-c-10 Analysed :10/23/2014 13:24

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



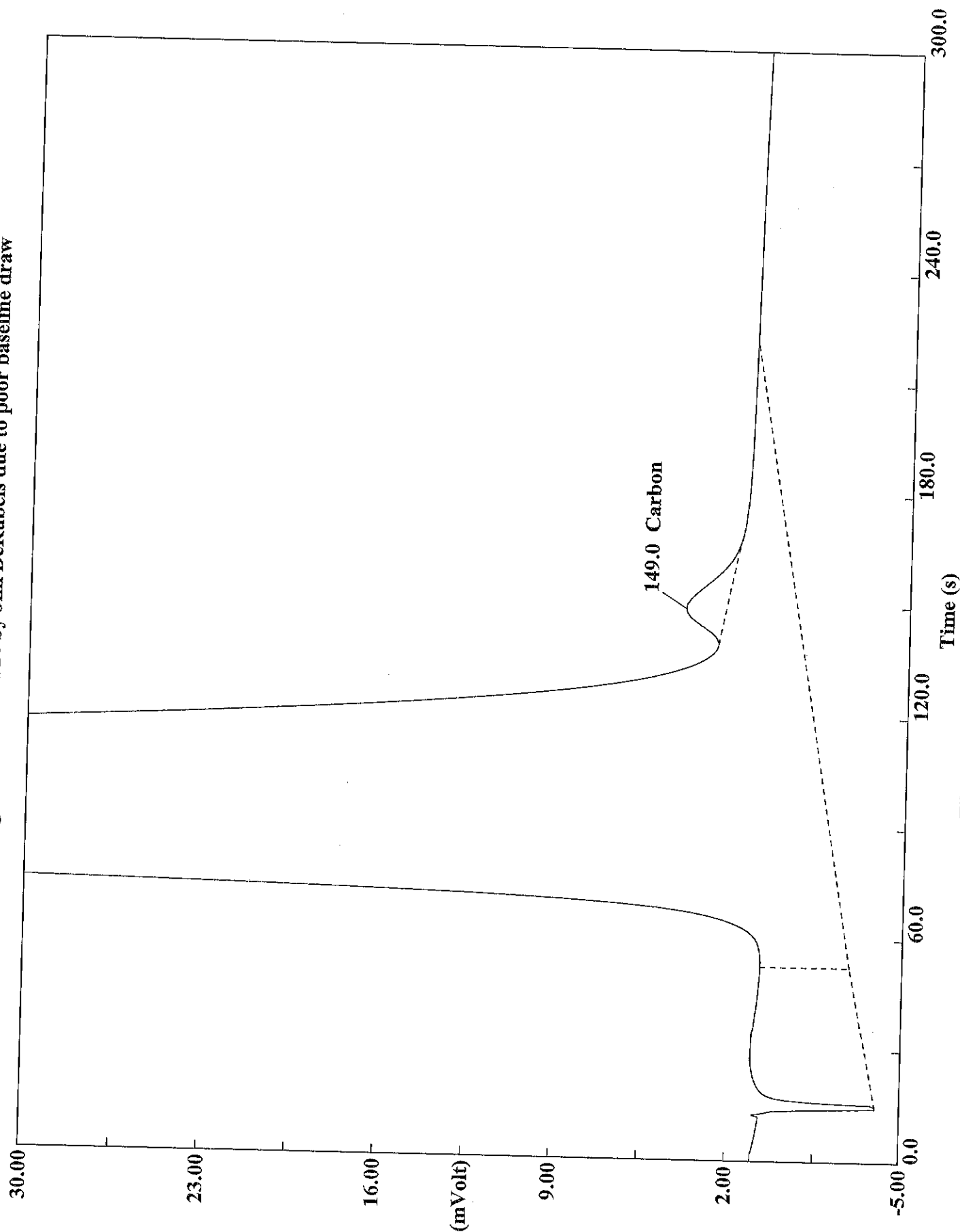
Filename C:\data\January\A102314086.DAT  
Sample name :rinse Analysed :10/23/2014 13:29

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314087.DAT  
Sample name :180-37728-d-15 Analysed :10/23/2014 13:35

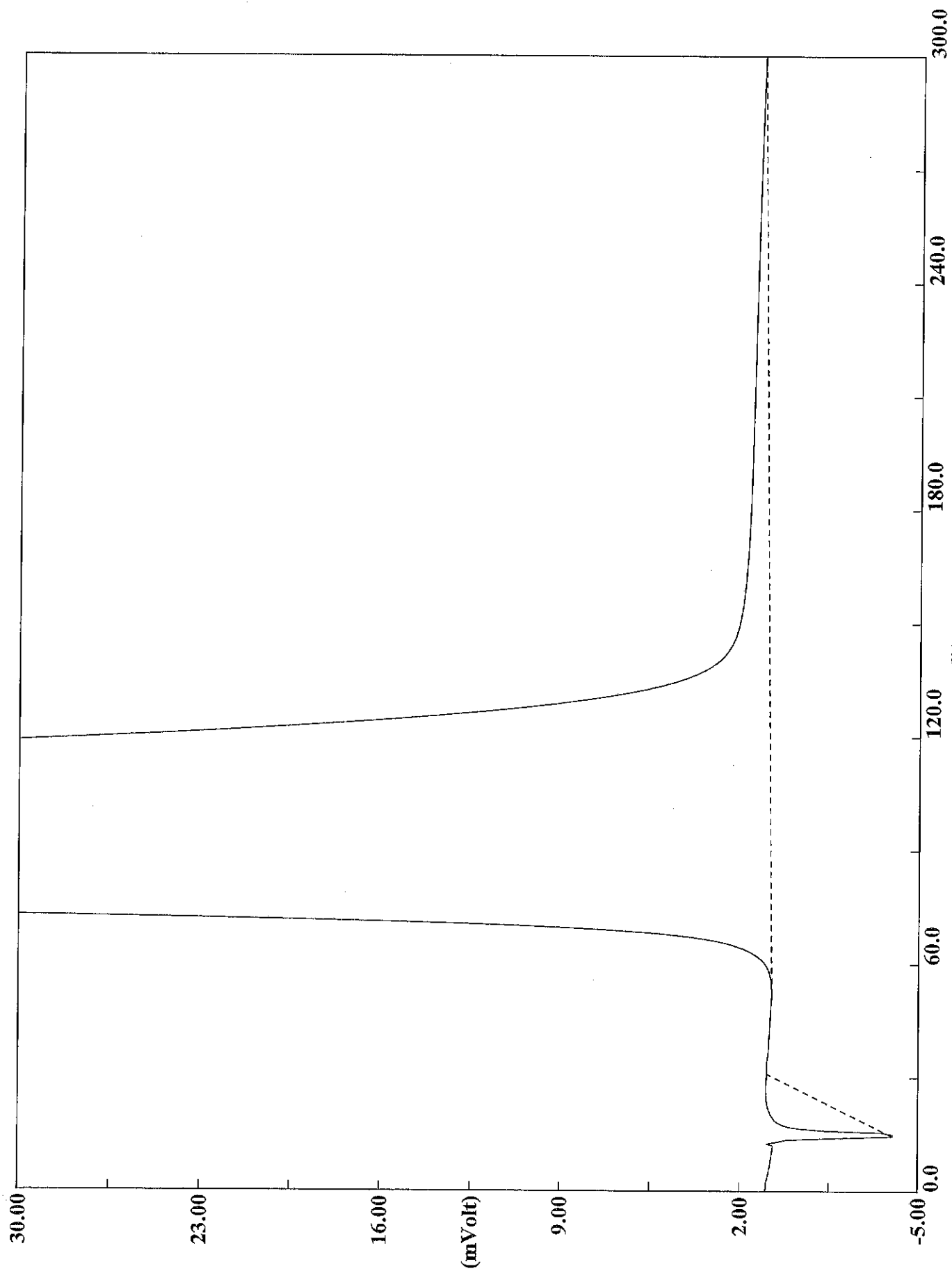
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314088.DAT

Sample name :180-37728-d-15 Analysed :10/23/2014 13:40

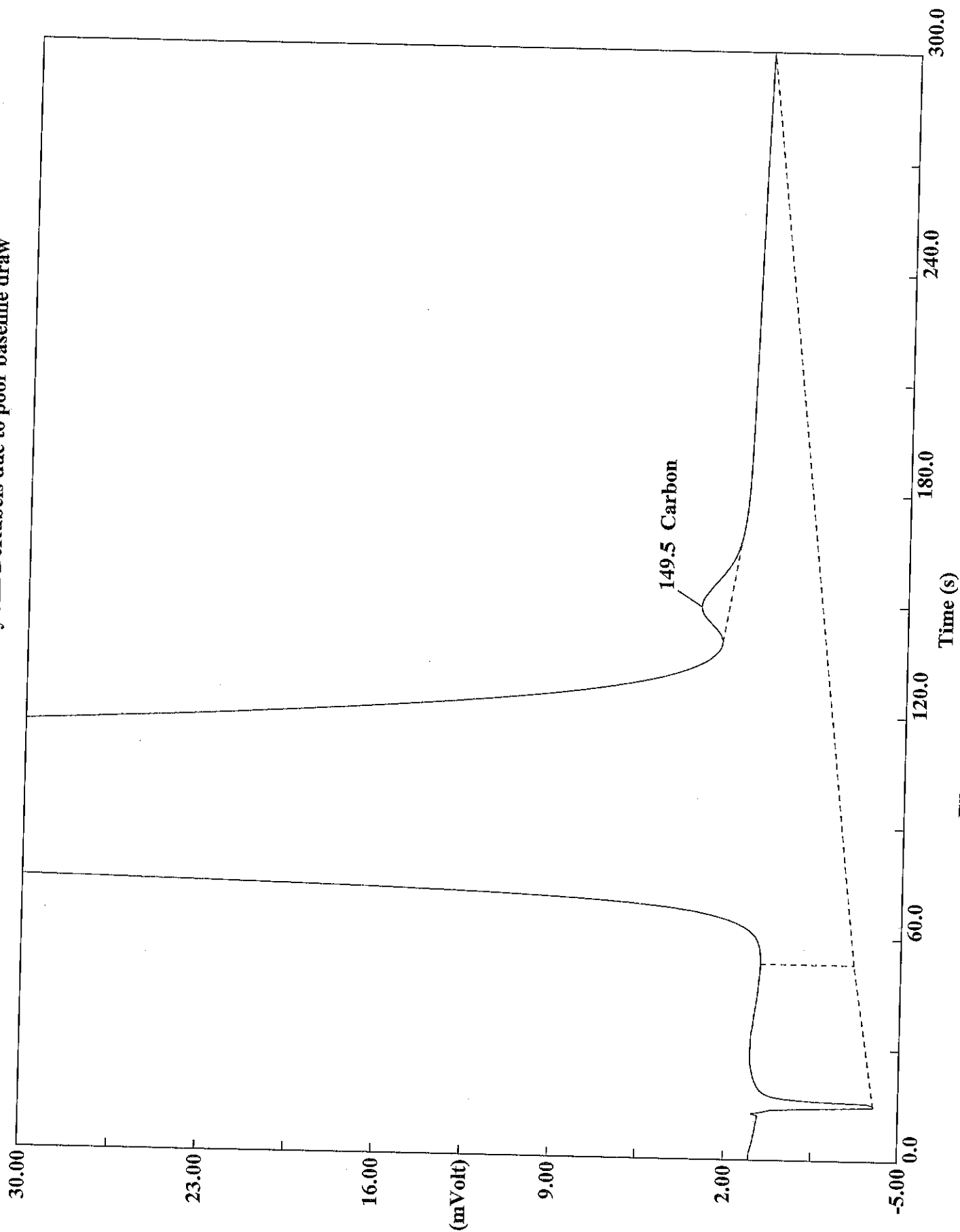
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314089.DAT  
Sample name :rinse Analysed :10/23/2014 13:45

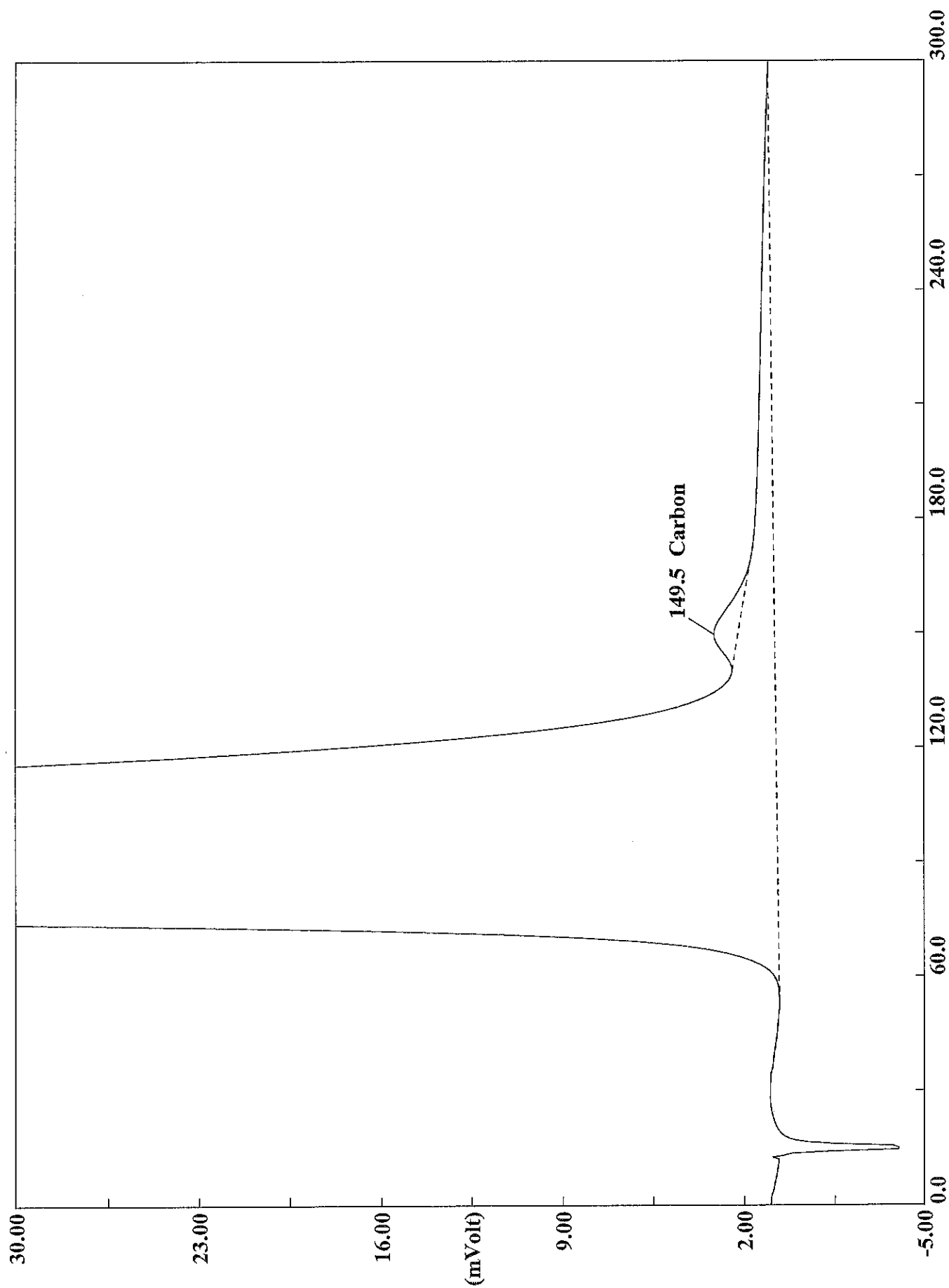


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314090.DAT

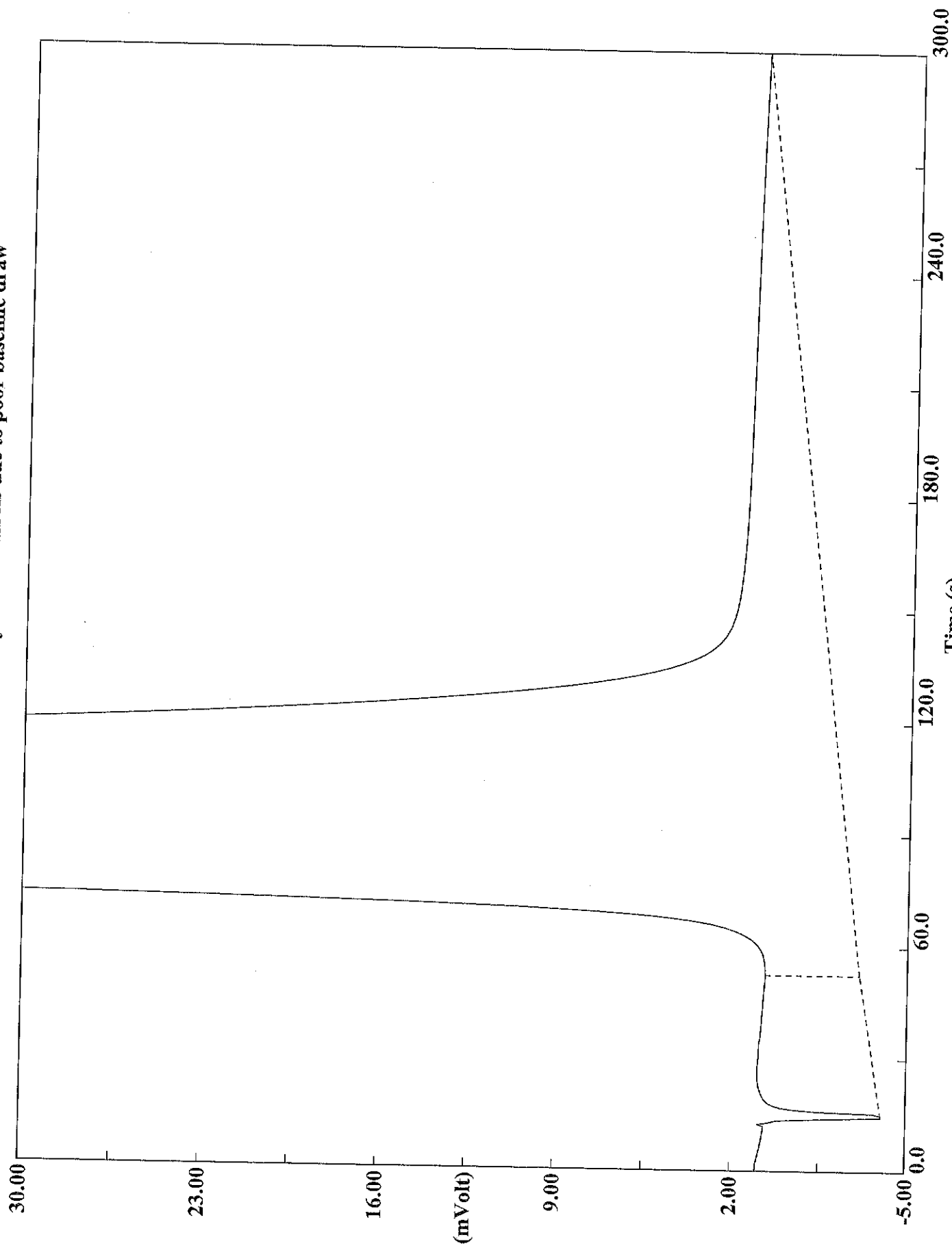
Sample name :180-37728-d-16 Analysed :10/23/2014 13:50



Filename C:\data\January\A102314091.DAT

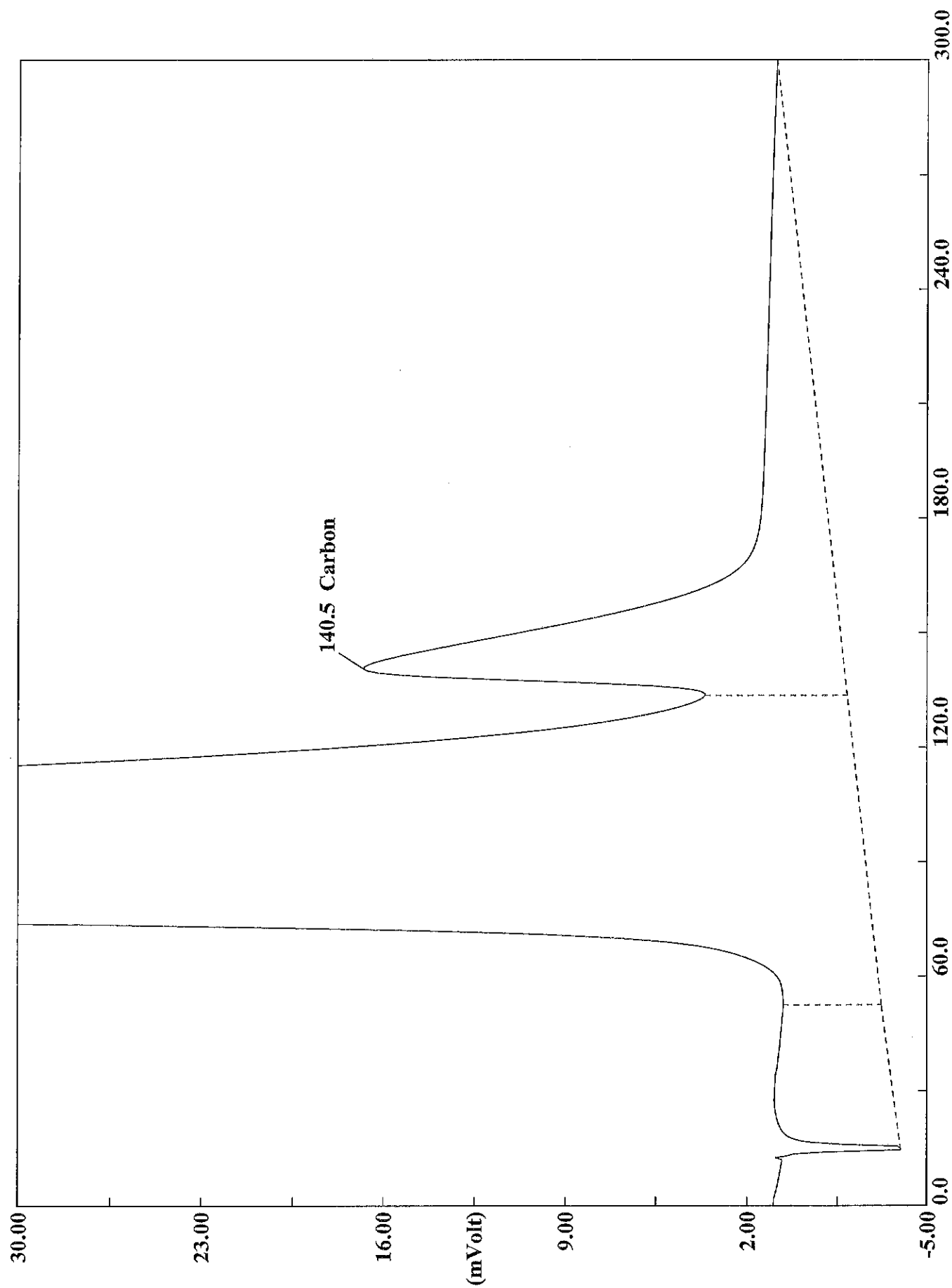
Sample name :180-37728-d-16 Analysed :10/23/2014 13:56

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



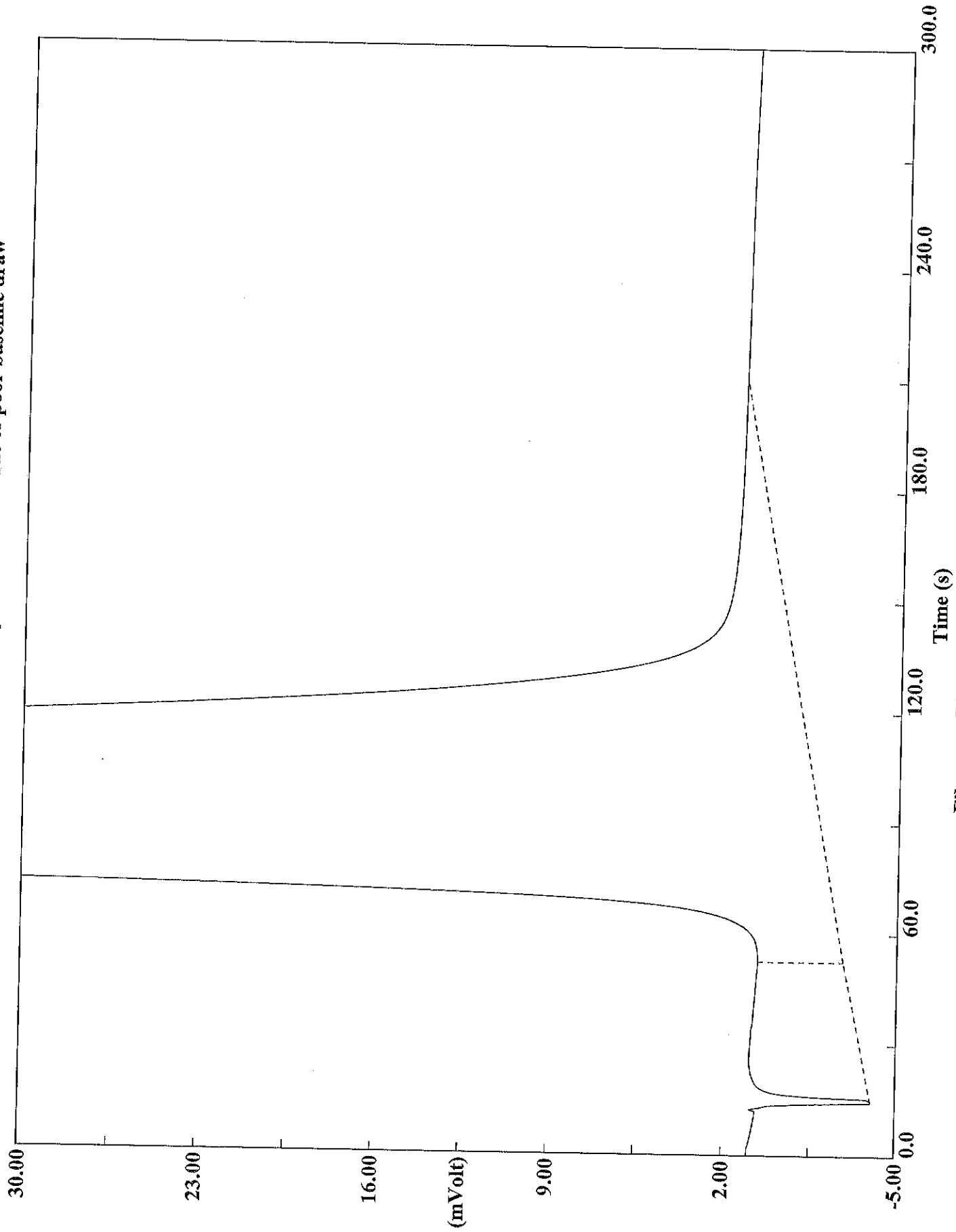
Filename C:\data\January\A102314092.DAT  
Sample name :rinse Analysed :10/23/2014 14:01

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

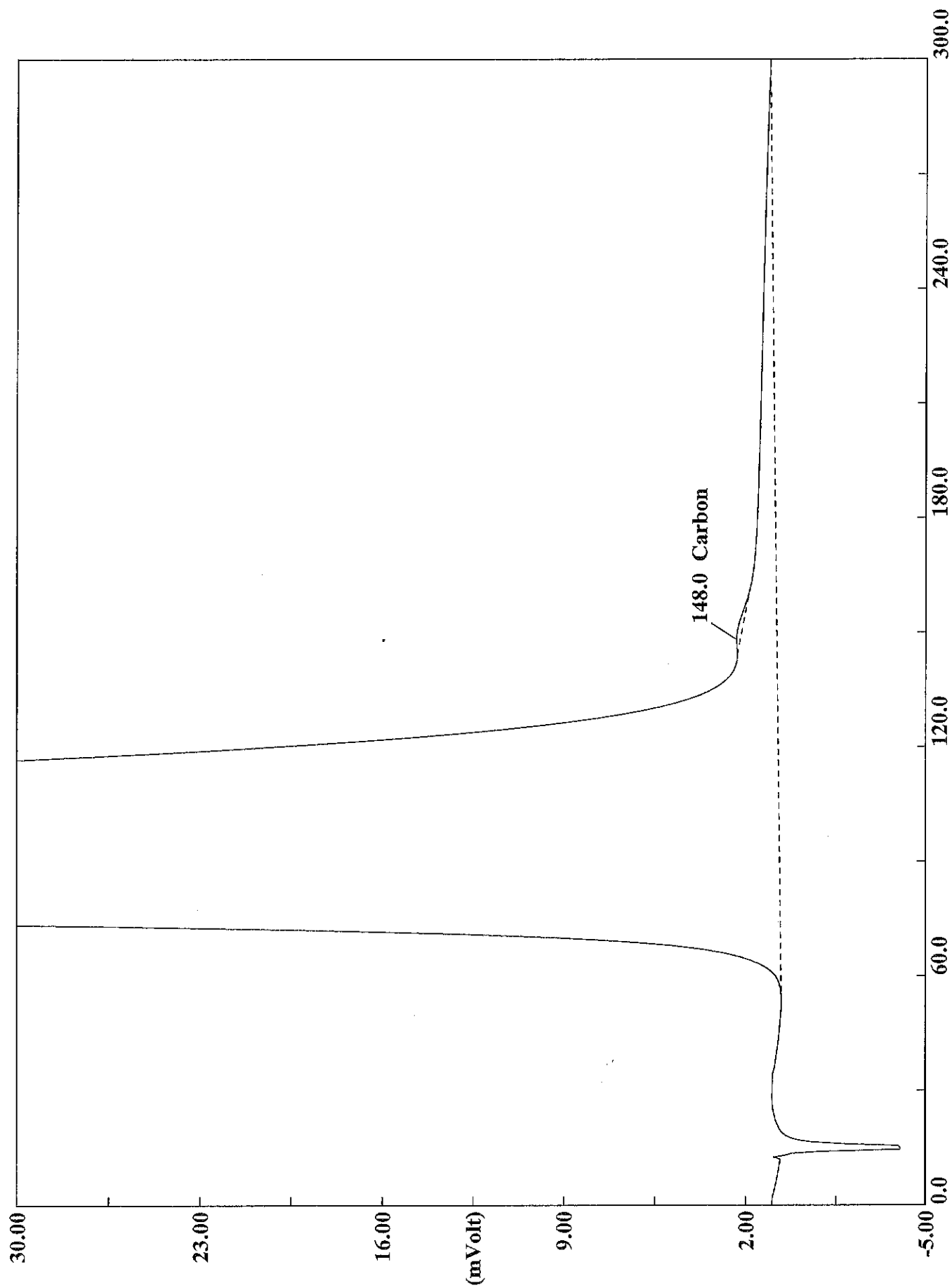


Filename C:\data\January\A102314093.DAT  
Sample name :ccv Analysed :10/23/2014 14:06

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



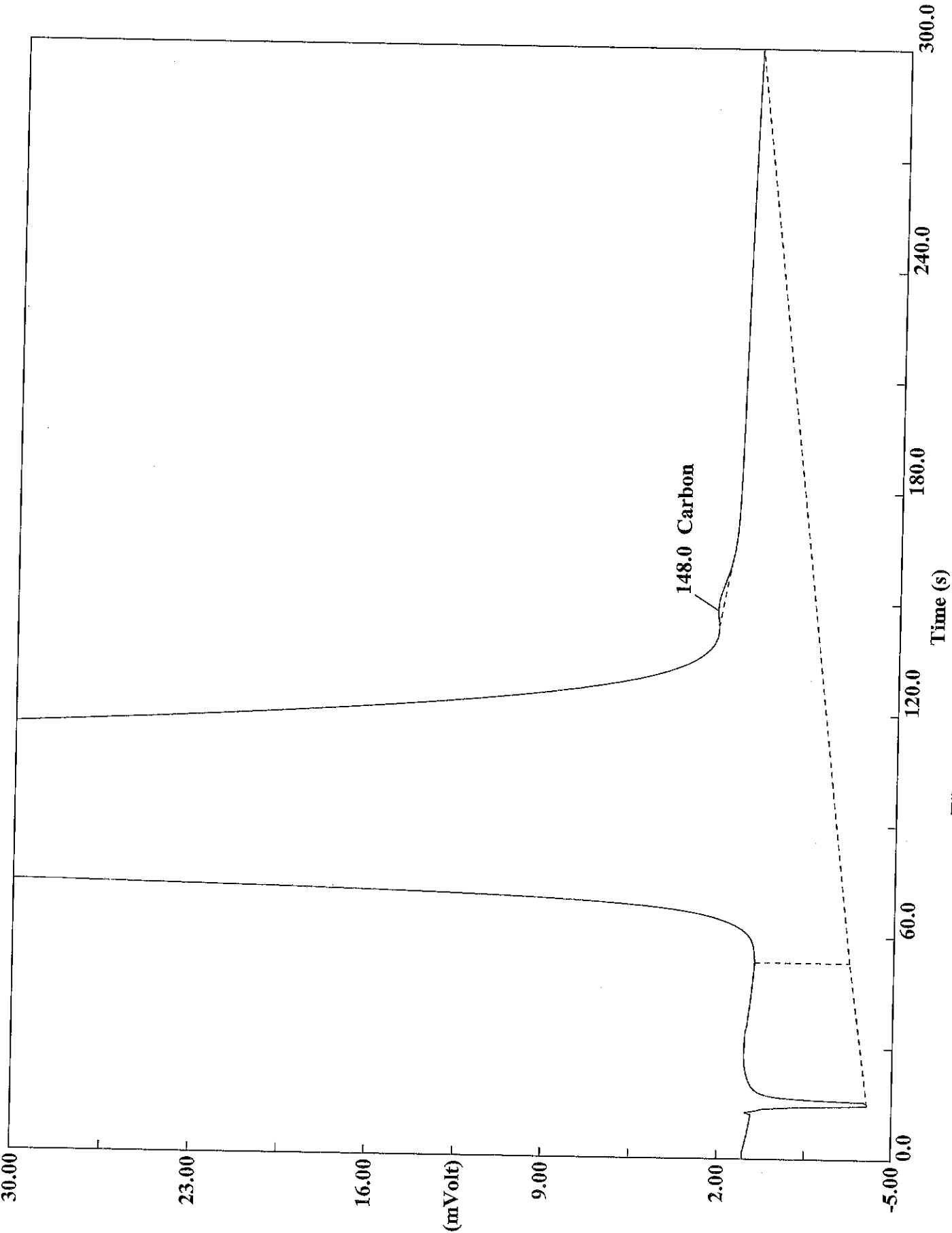
Filename C:\data\January\A102314094.DAT  
Sample name :ccb Analysed :10/23/2014 14:11



Filename C:\data\January\A102314095.DAT

Sample name :180-37750-b-1 Analysed :10/23/2014 14:17

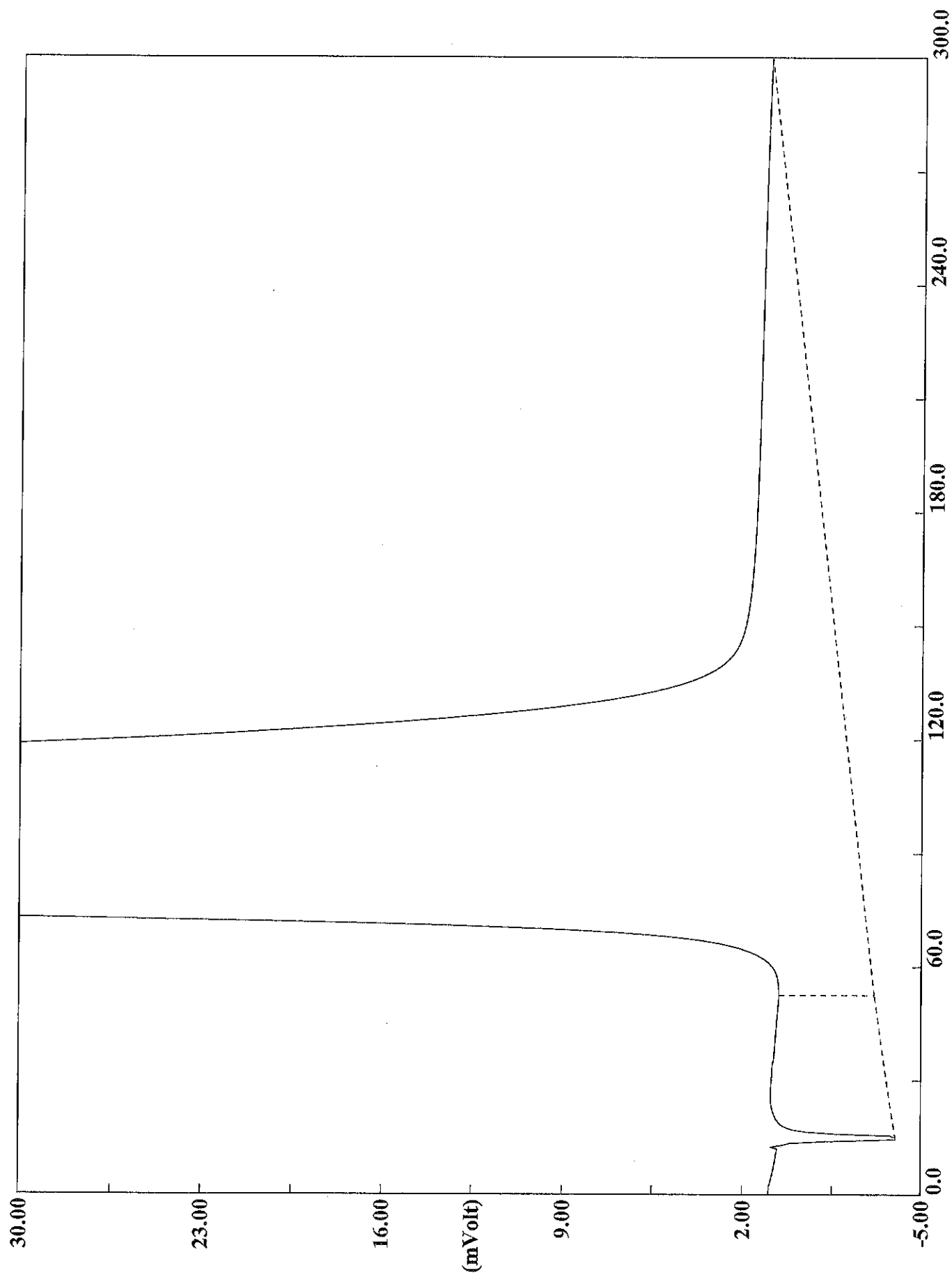
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314096.DAT

Sample name :180-37750-b-1 Analysed :10/23/2014 14:22

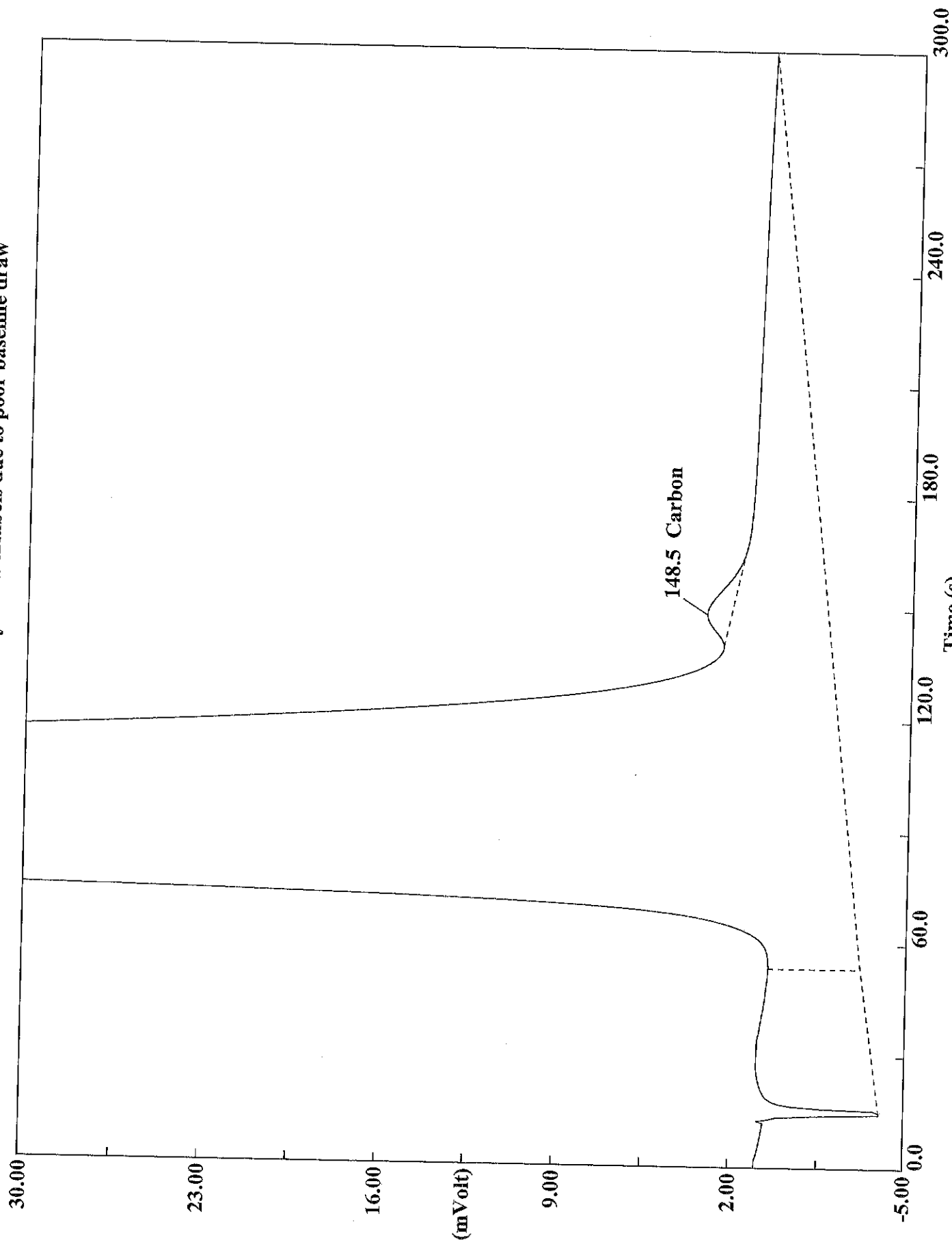
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314097.DAT  
Sample name :rinse Analysed :10/23/2014 14:27

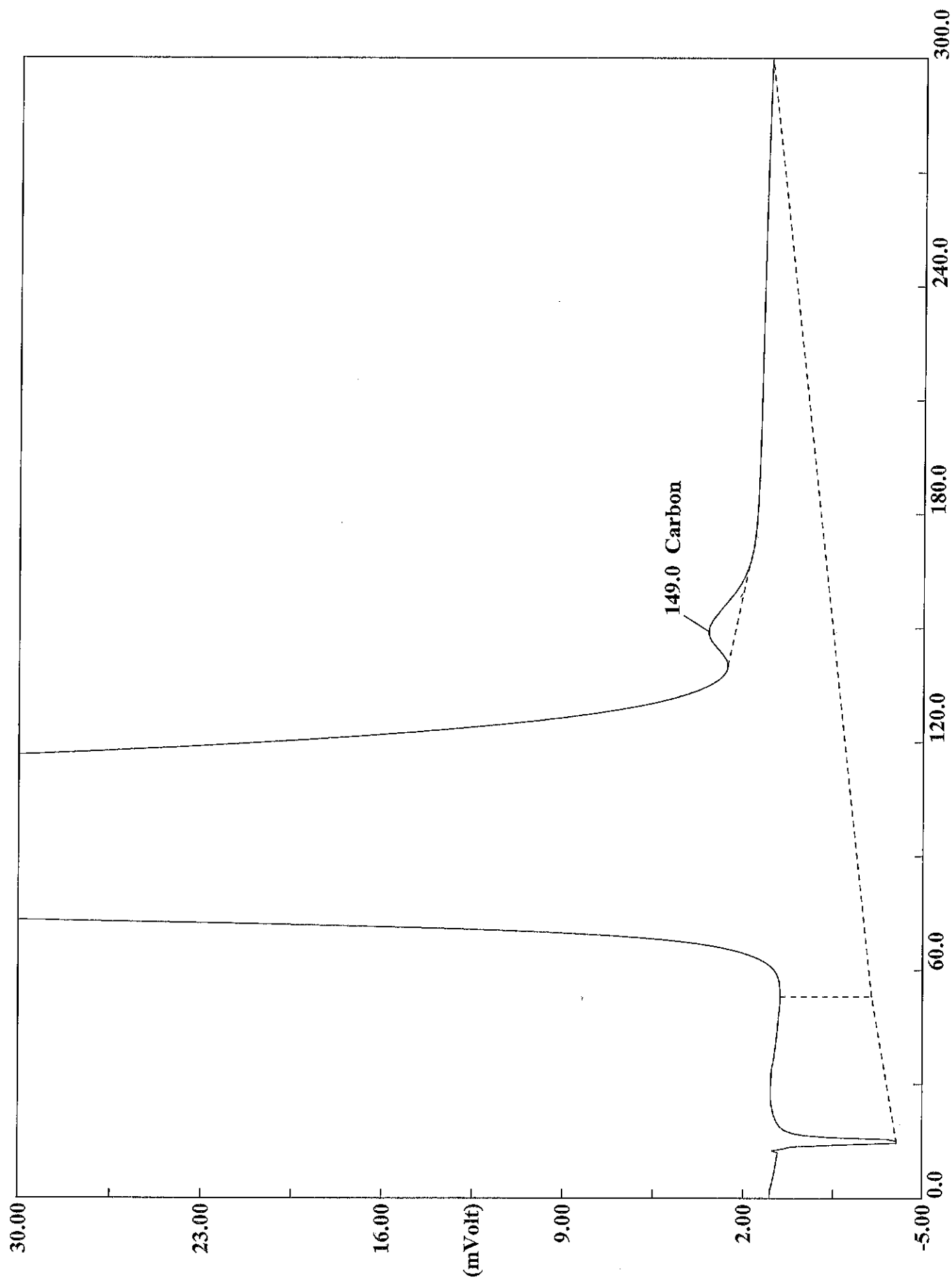


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314098.DAT

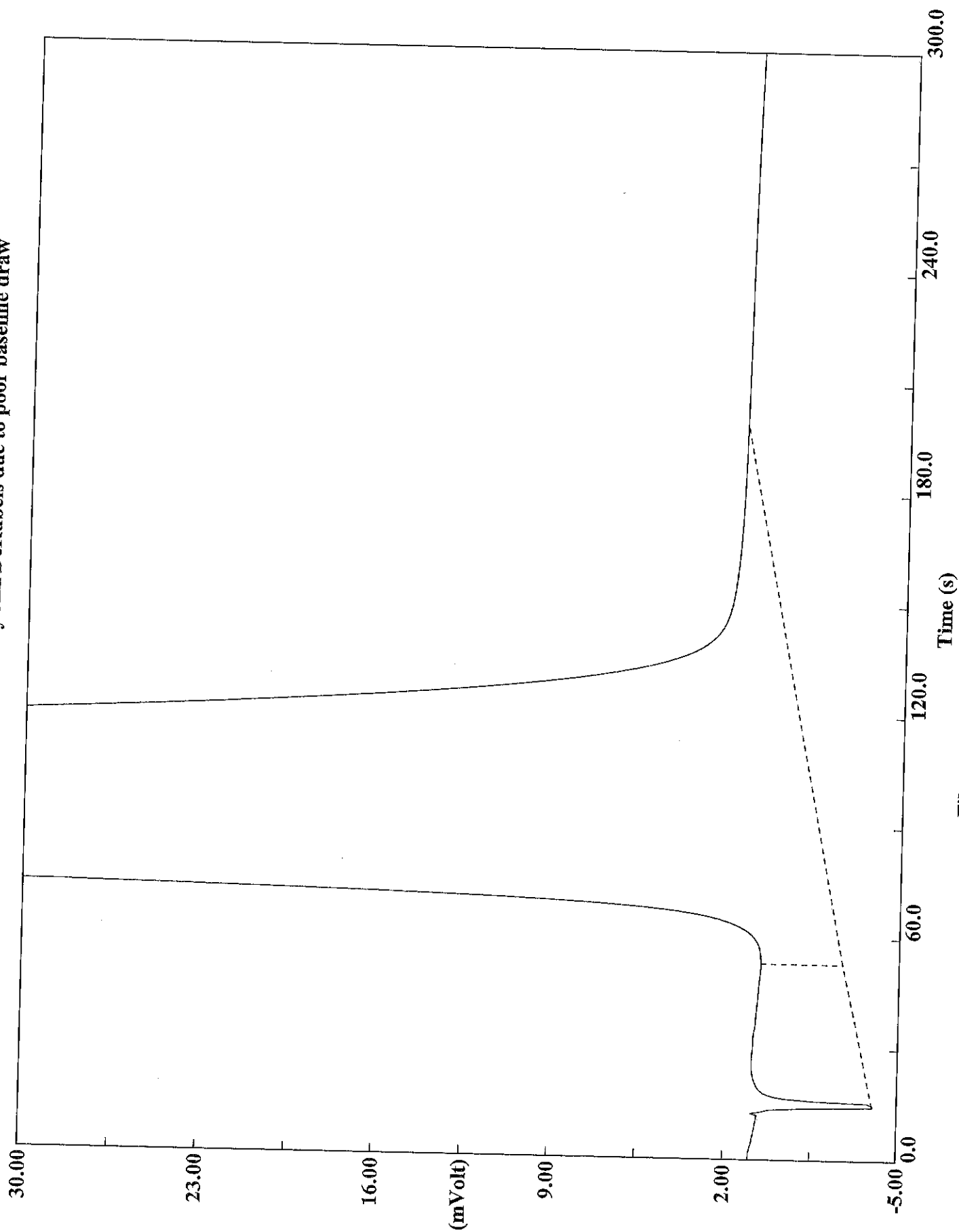
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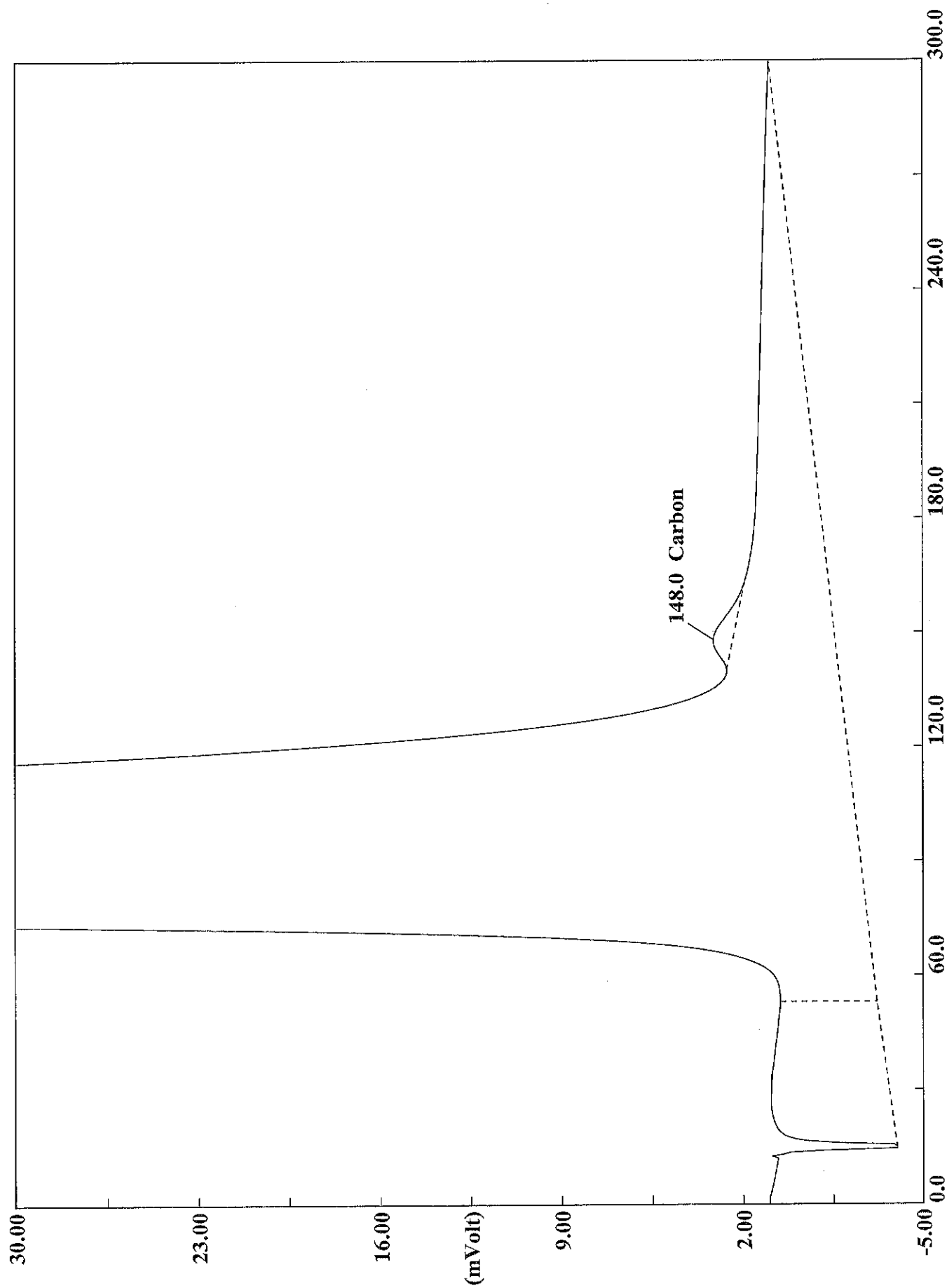
Filename C:\data\January\A102314099.DAT

Sample name :180-37750-b-2 Analysed :10/23/2014 14:38

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



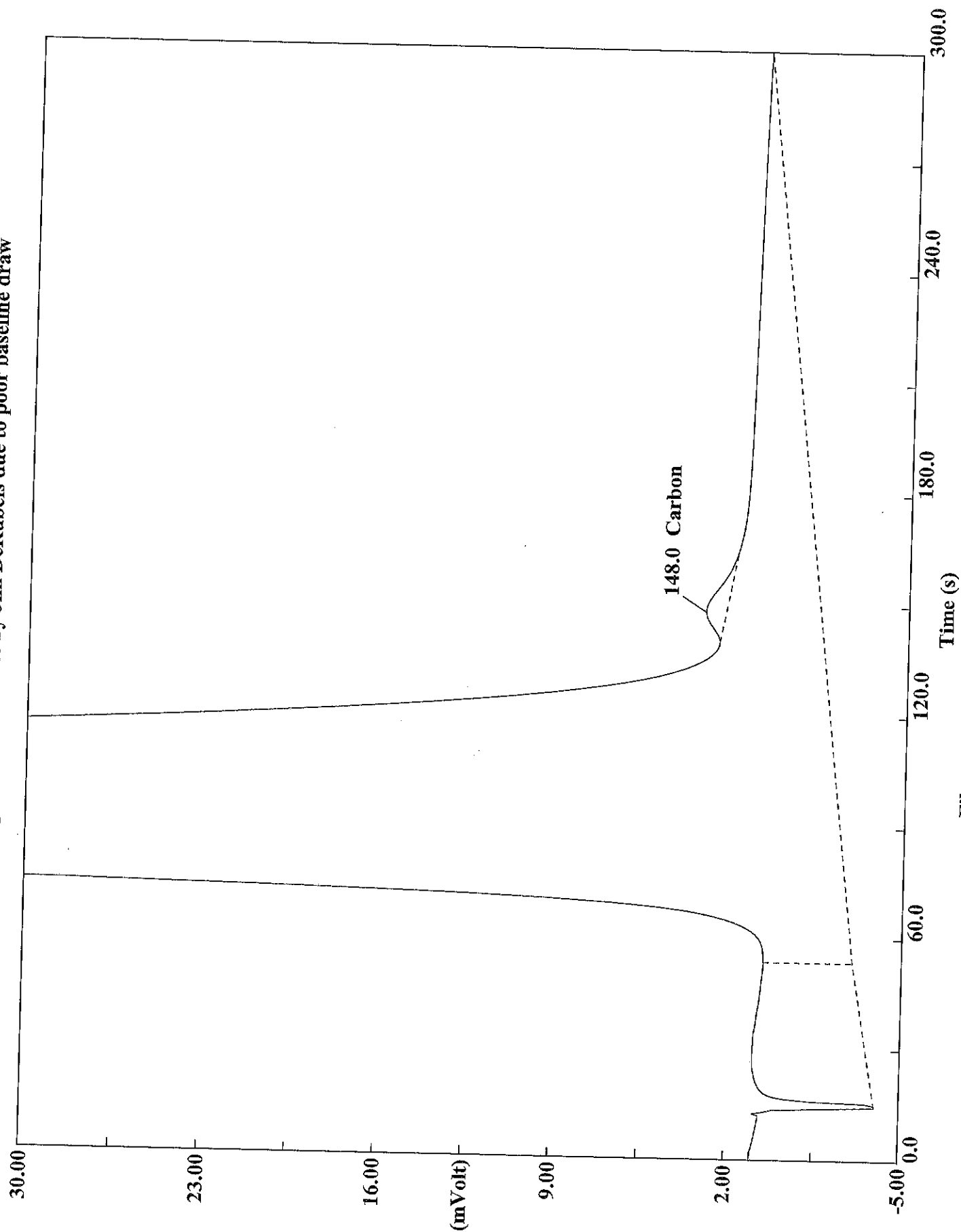
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Sample name :rinse Analysed :10/23/2014 14:43



Filename C:\data\January\A102314101.DAT

Sample name : 180-37750-b-3 Analysed : 10/23/2014 14:48

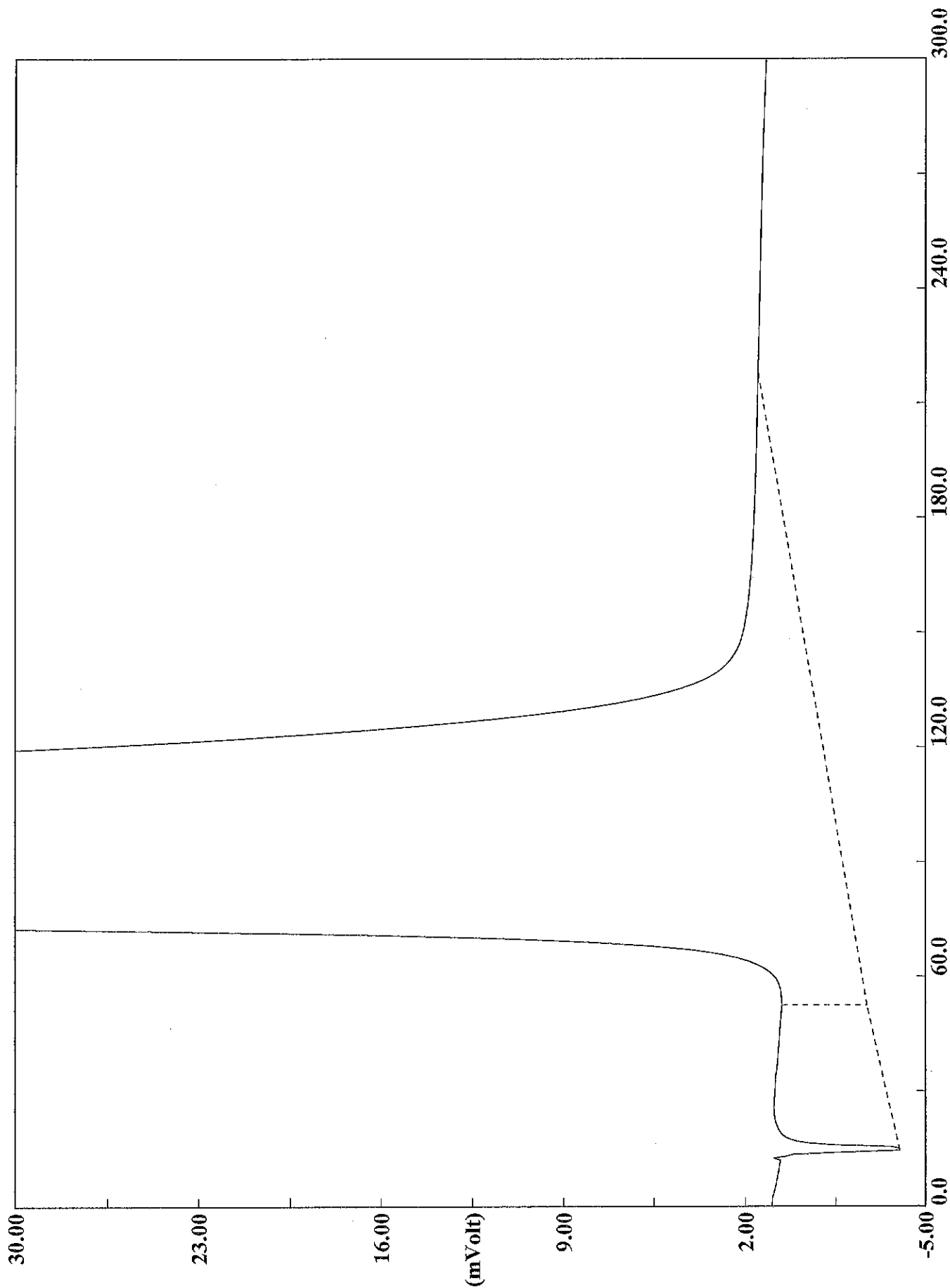
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314102.DAT

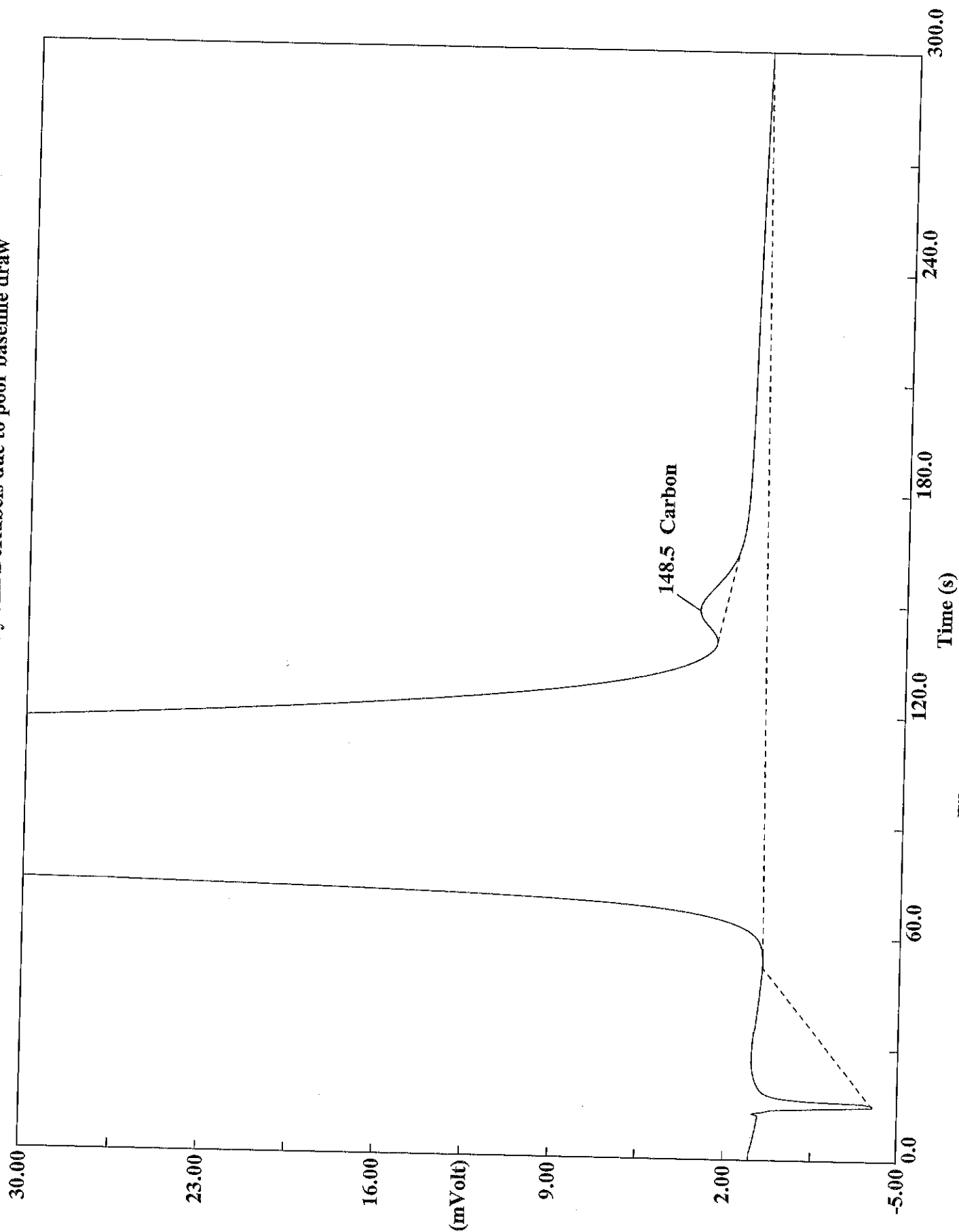
Sample name :180-37750-b-3 Analysed :10/23/2014 14:53

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

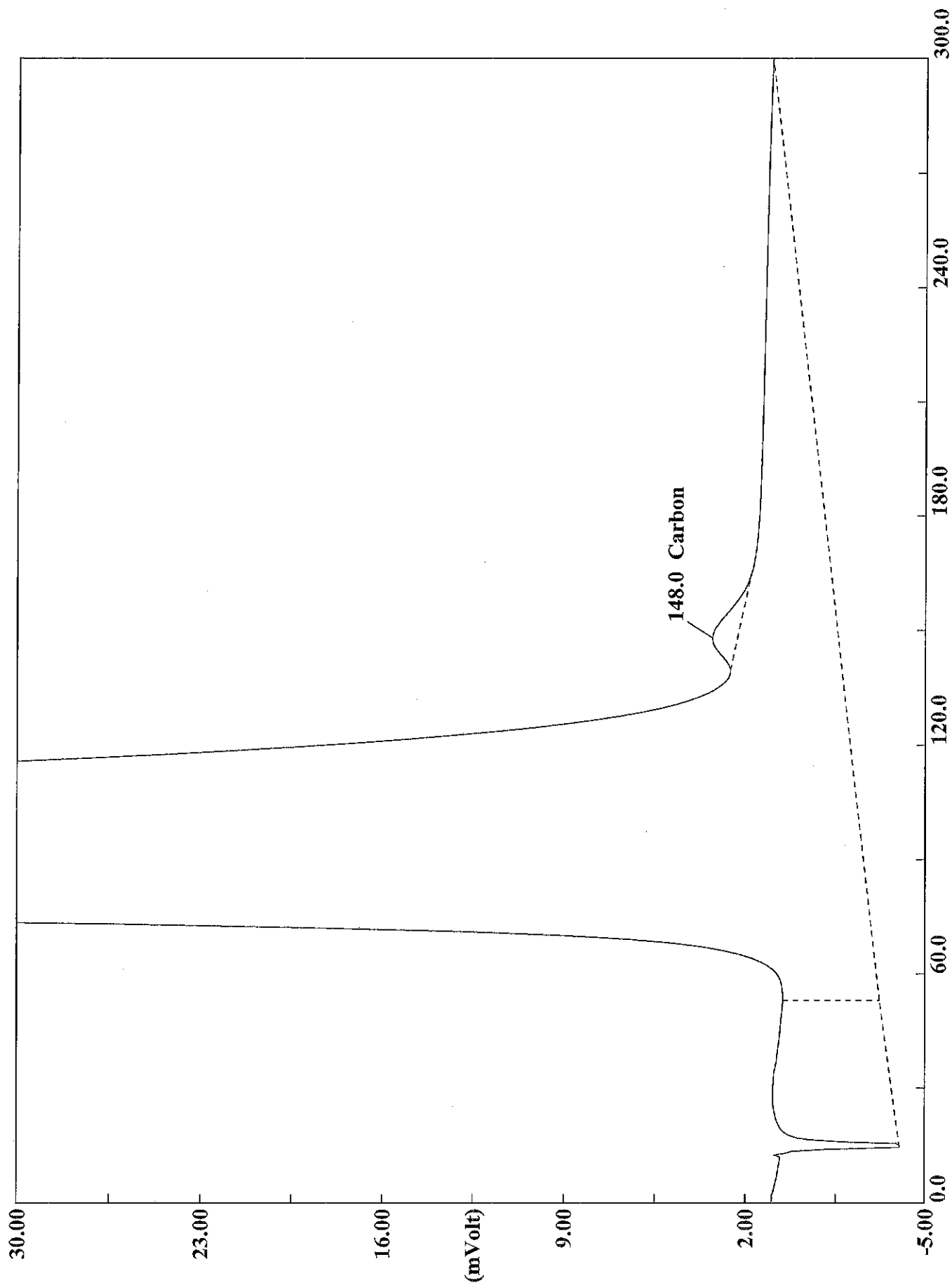


Filename C:\data\January\A102314103.DAT  
Sample name :rinse Analysed :10/23/2014 14:59

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314104.DAT  
Sample name :180-37750-d-5 Analysed :10/23/2014 15:04

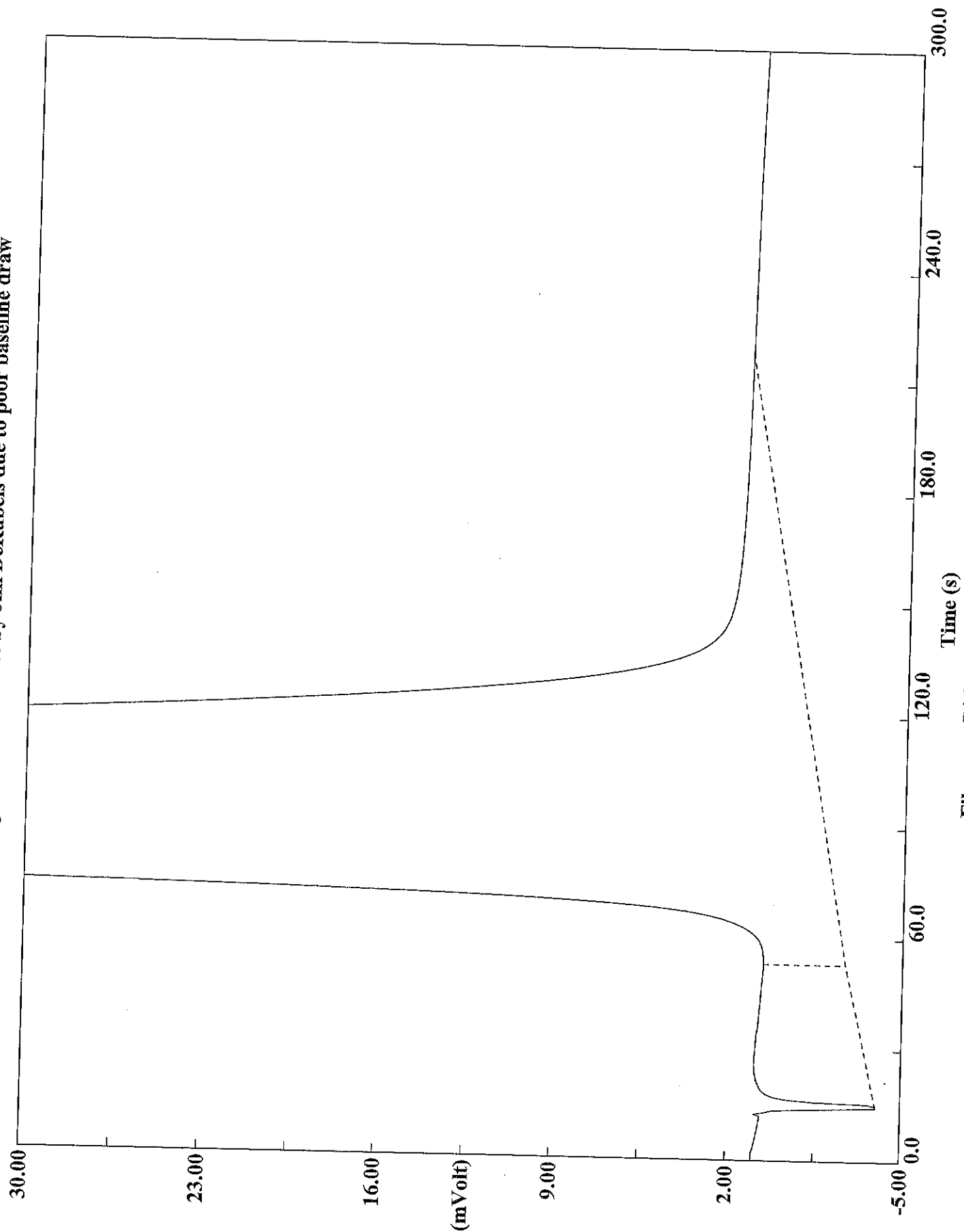


Filename C:\data\January\A102314105.DAT

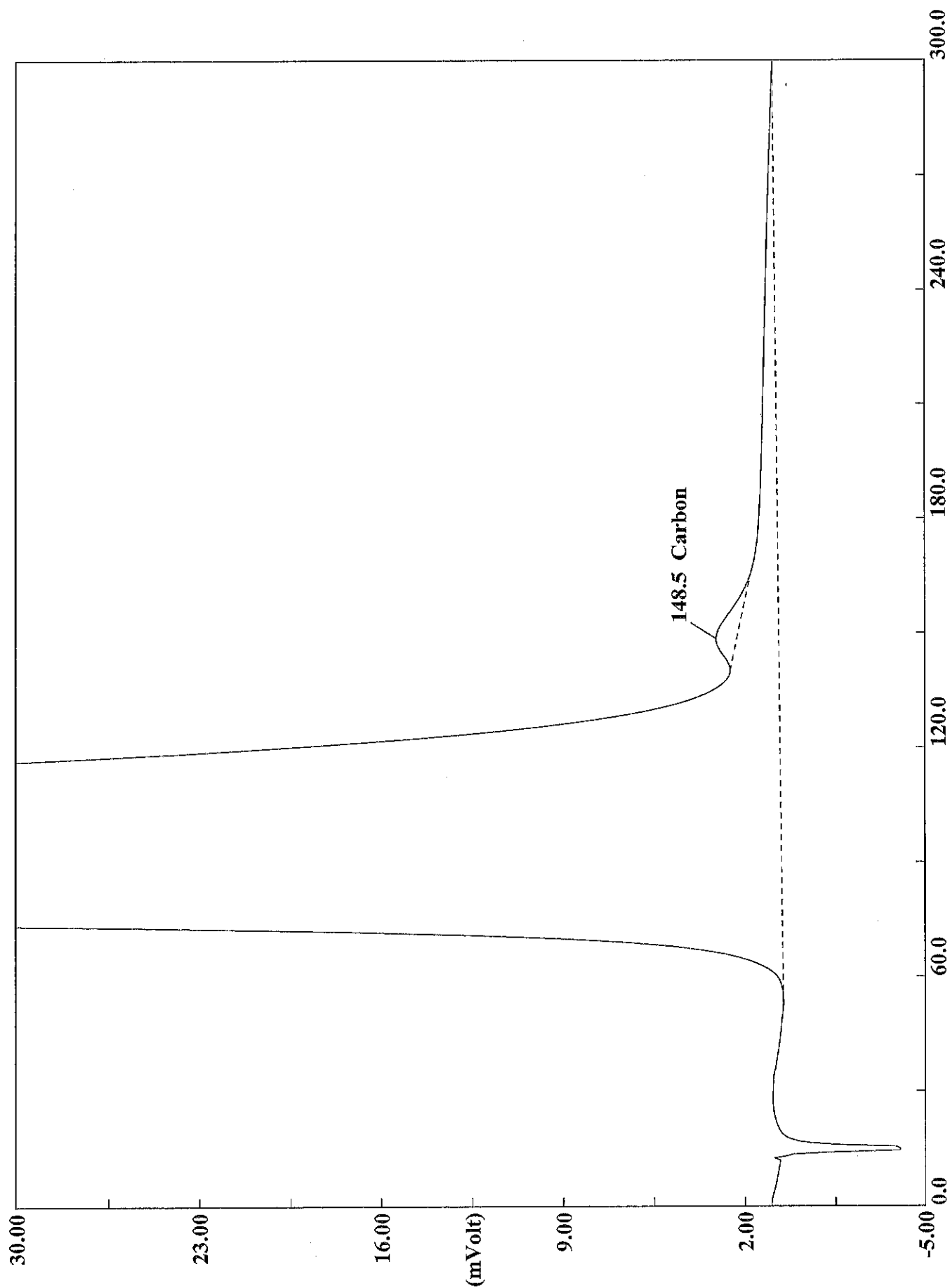
Sample name :180-37750-d-5 Analysed :10/23/2014 15:09



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

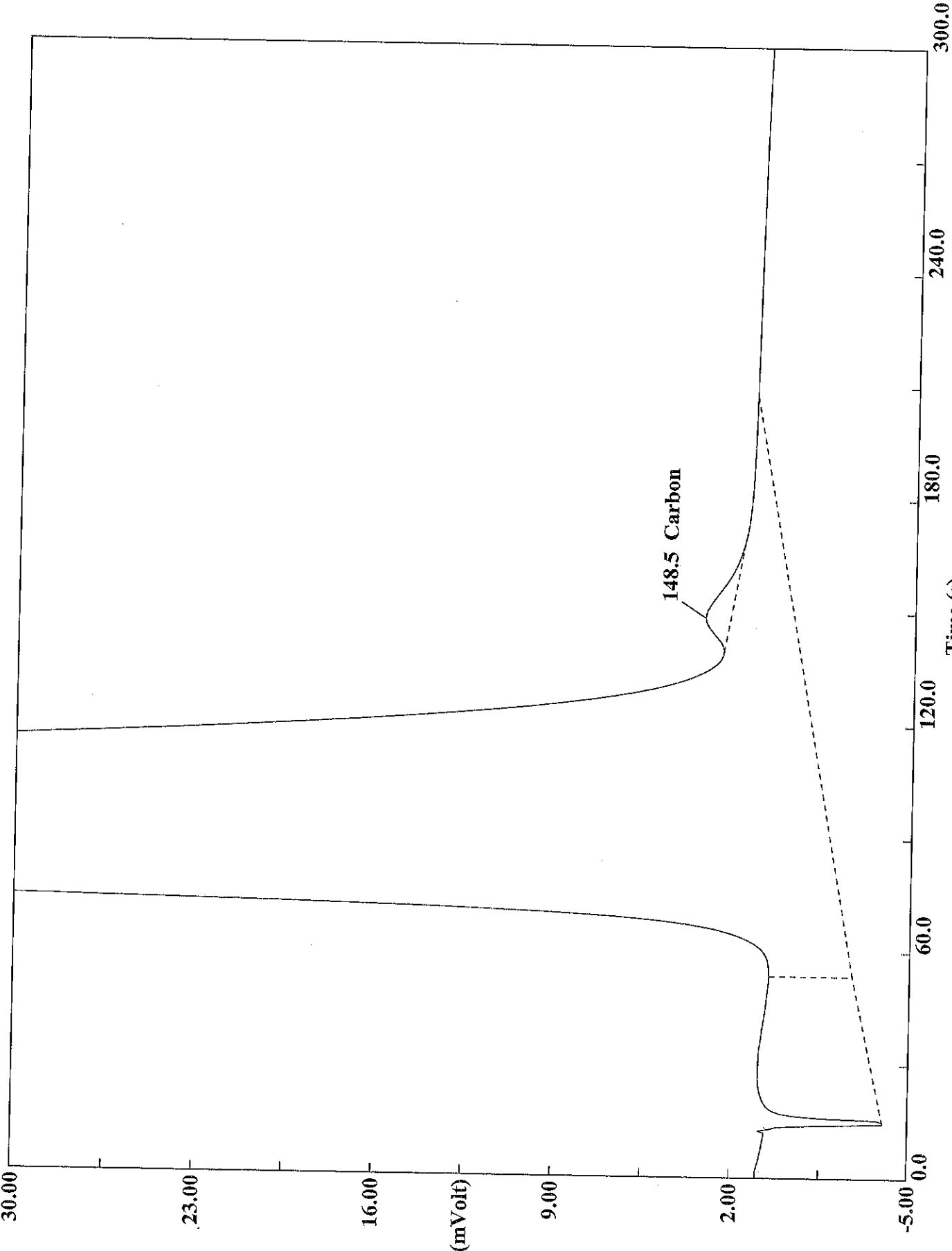


Filename C:\data\January\A102314106.DAT  
Sample name :rinse Analysed :10/23/2014 15:14



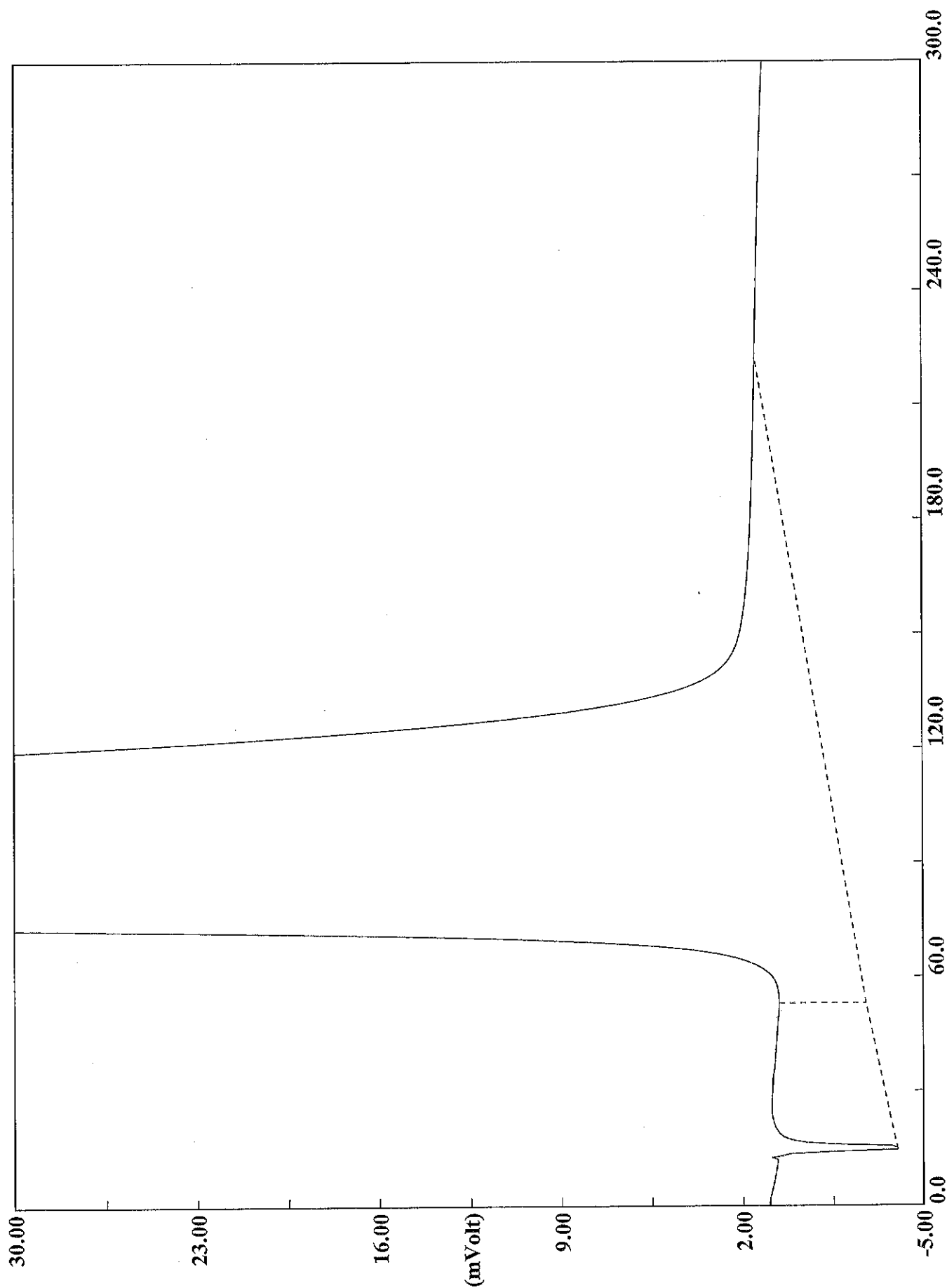
Filename C:\data\January\A102314107.DAT  
Sample name :180-37750-b-6 Analysed :10/23/2014 15:20

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314108.DAT  
Sample name :180-37750-b-6 Analysed :10/23/2014 15:25

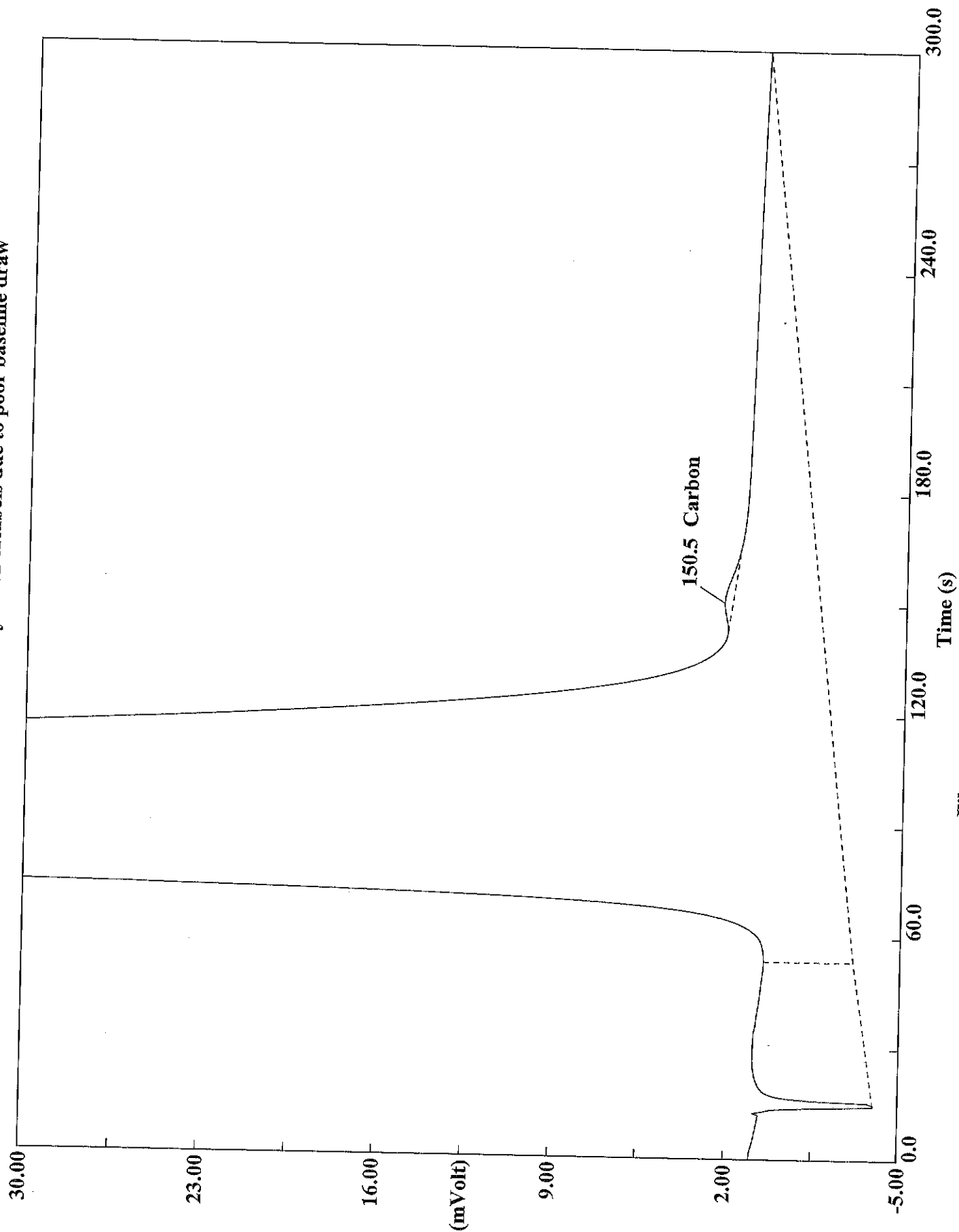
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314109.DAT

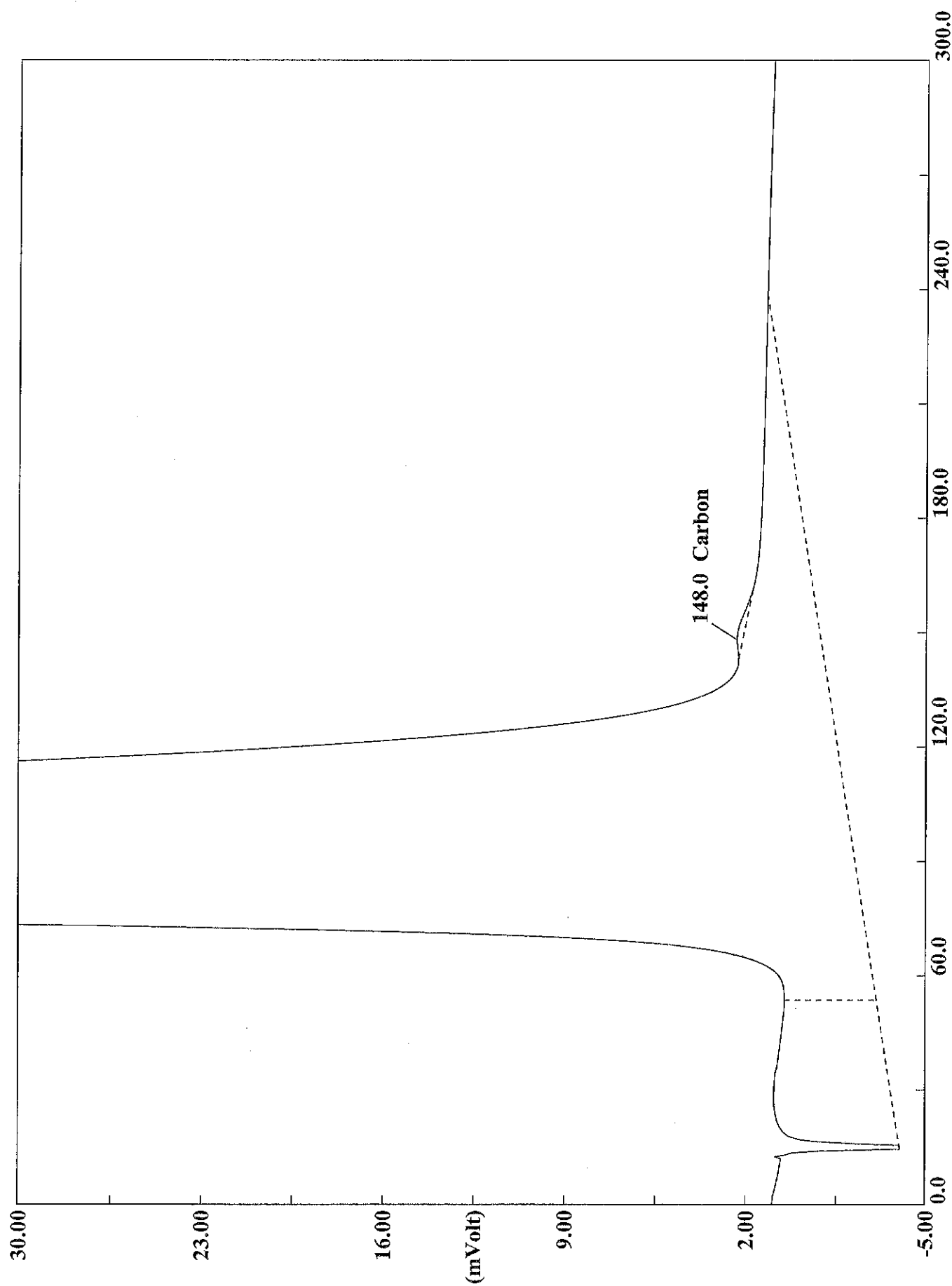
Sample name :rinse Analysed :10/23/2014 15:30

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314110.DAT

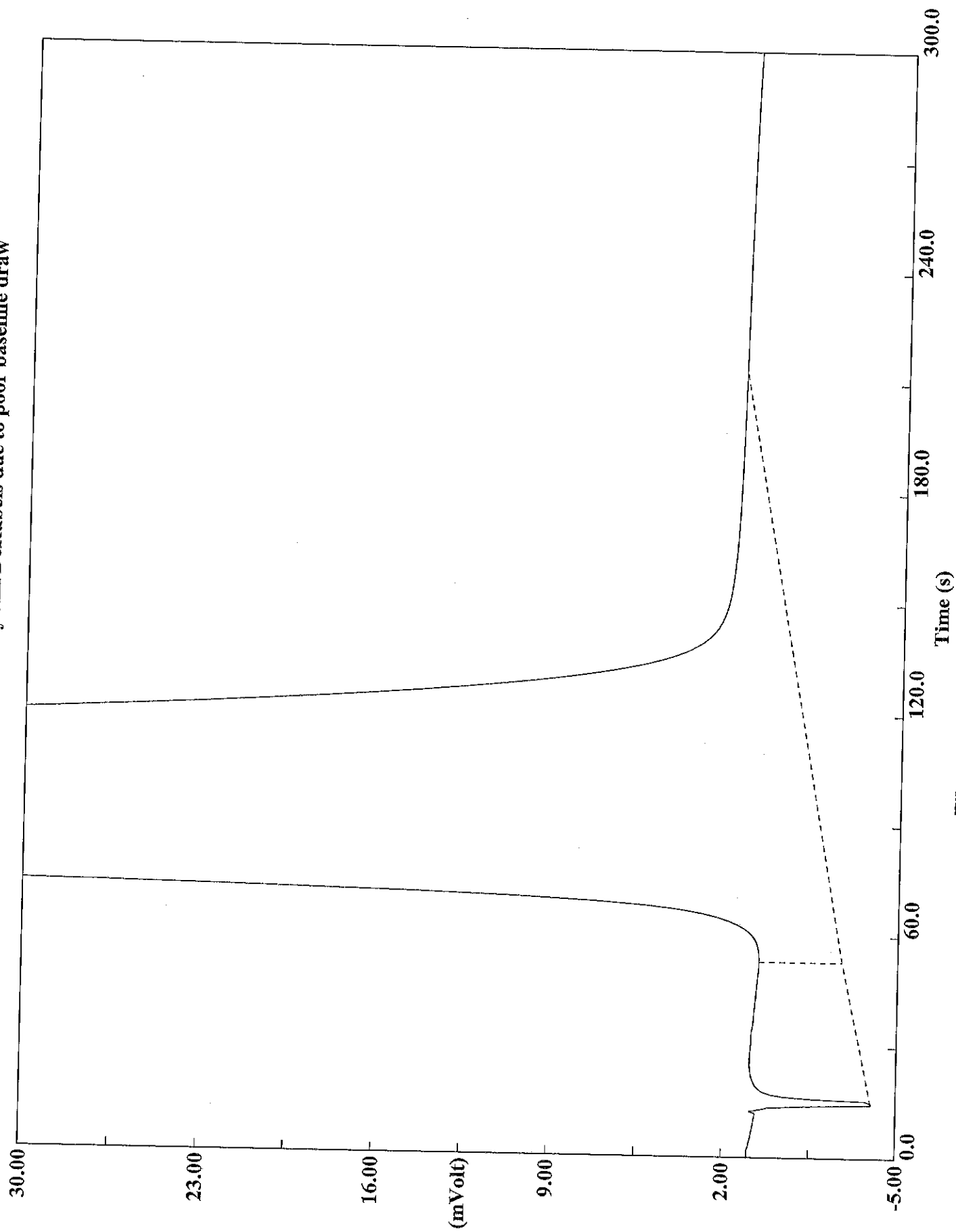
Sample name : 180-37750-b-7 Analysed : 10/23/2014 15:36



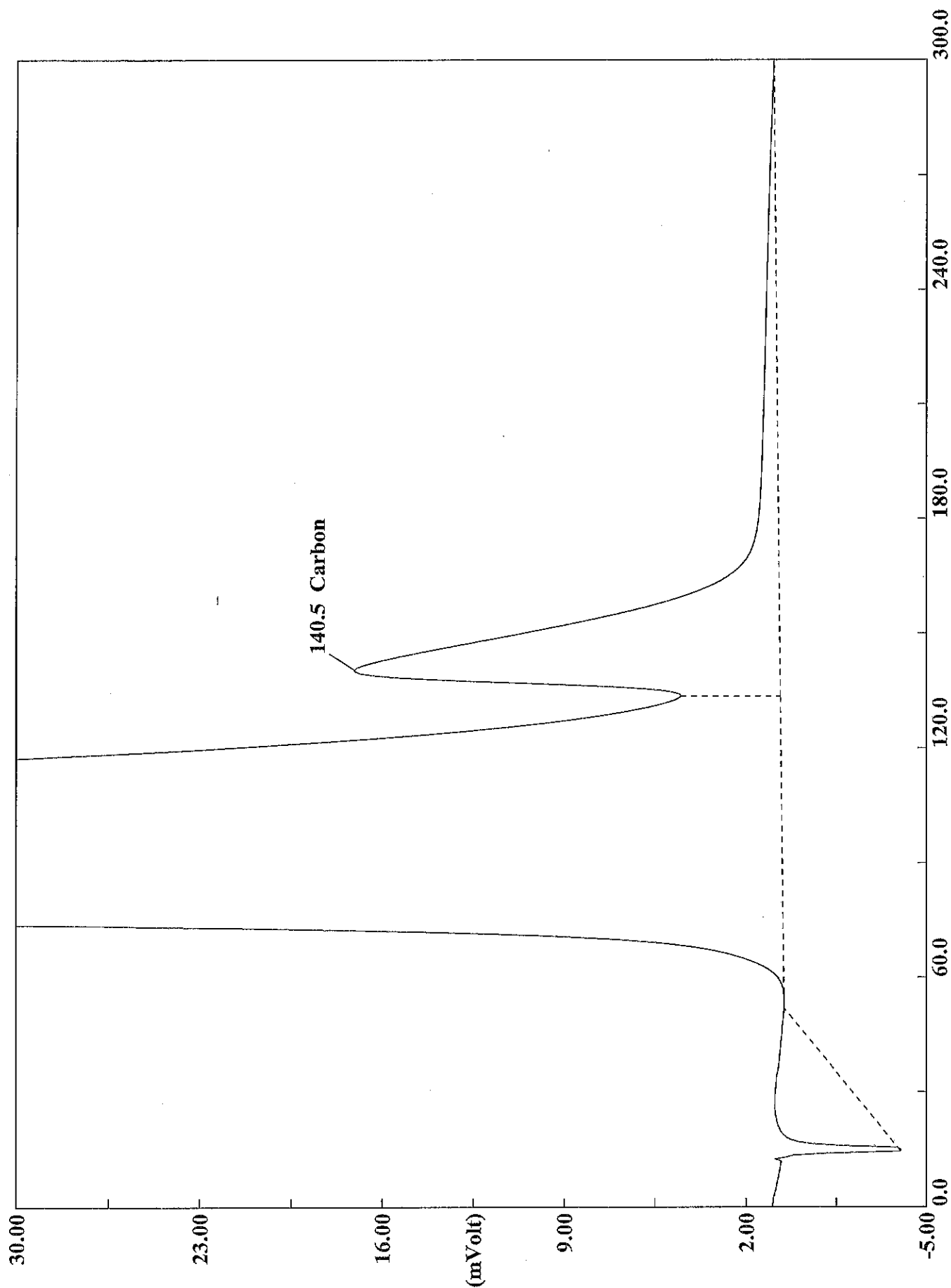
Filename C:\data\January\A102314111.DAT

Sample name :180-37750-b-7 Analysed :10/23/2014 15:41

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



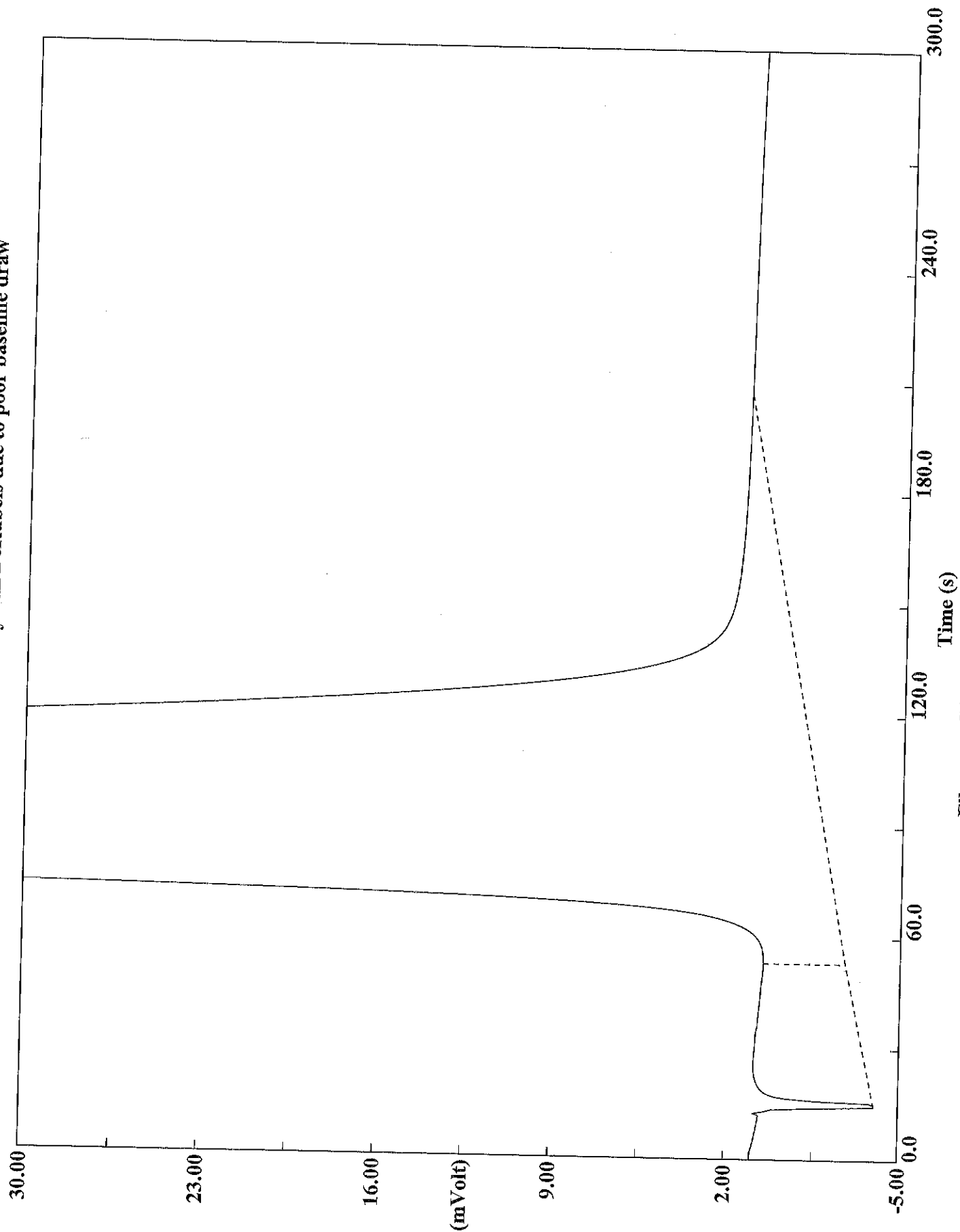
Filename C:\data\January\A102314112.DAT  
Sample name :rinse Analysed :10/23/2014 15:46



Filename C:\data\January\A102314113.DAT  
Sample name :ccv Analysed :10/23/2014 15:51

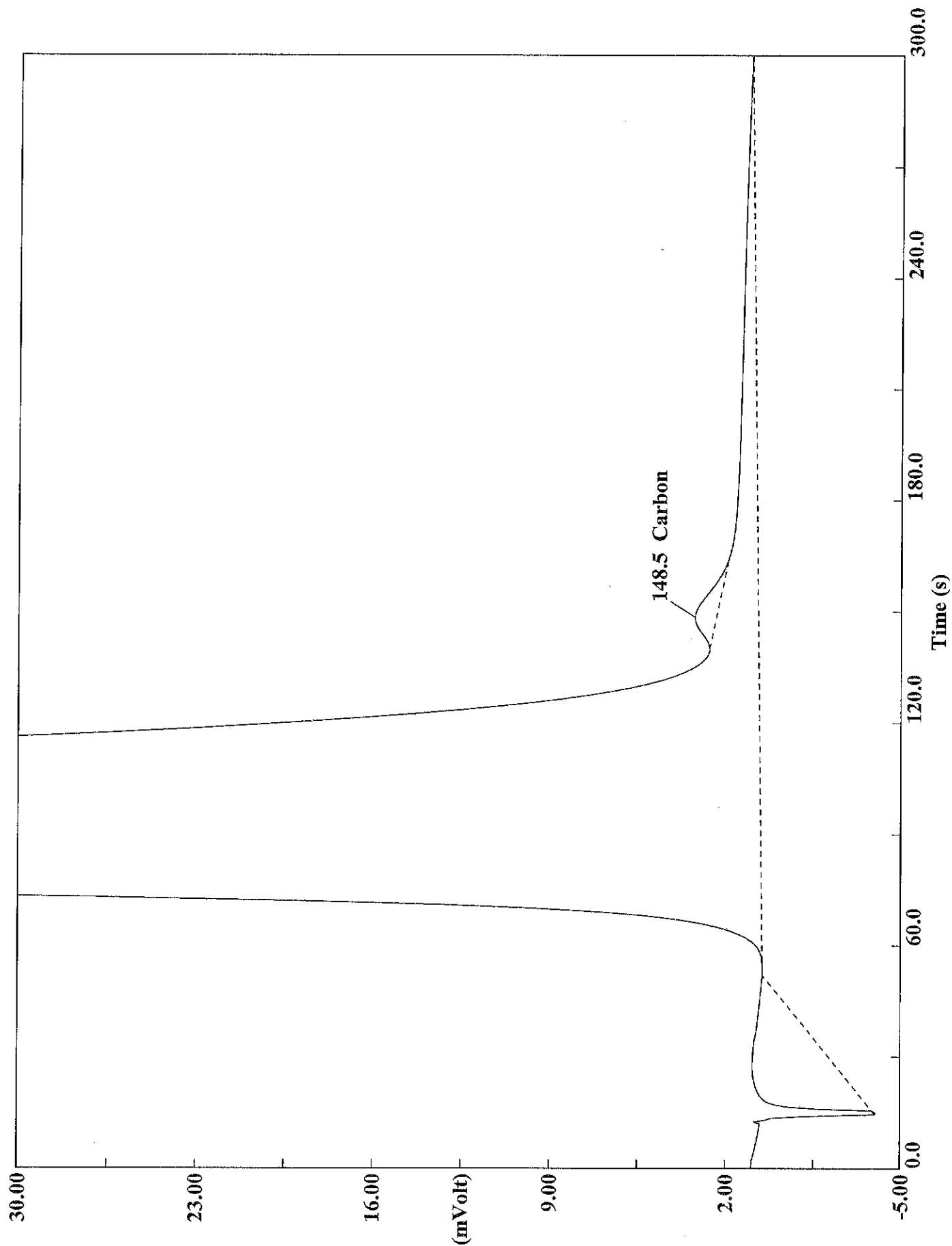


Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314114.DAT  
Sample name :ccb Analysed :10/23/2014 15:57

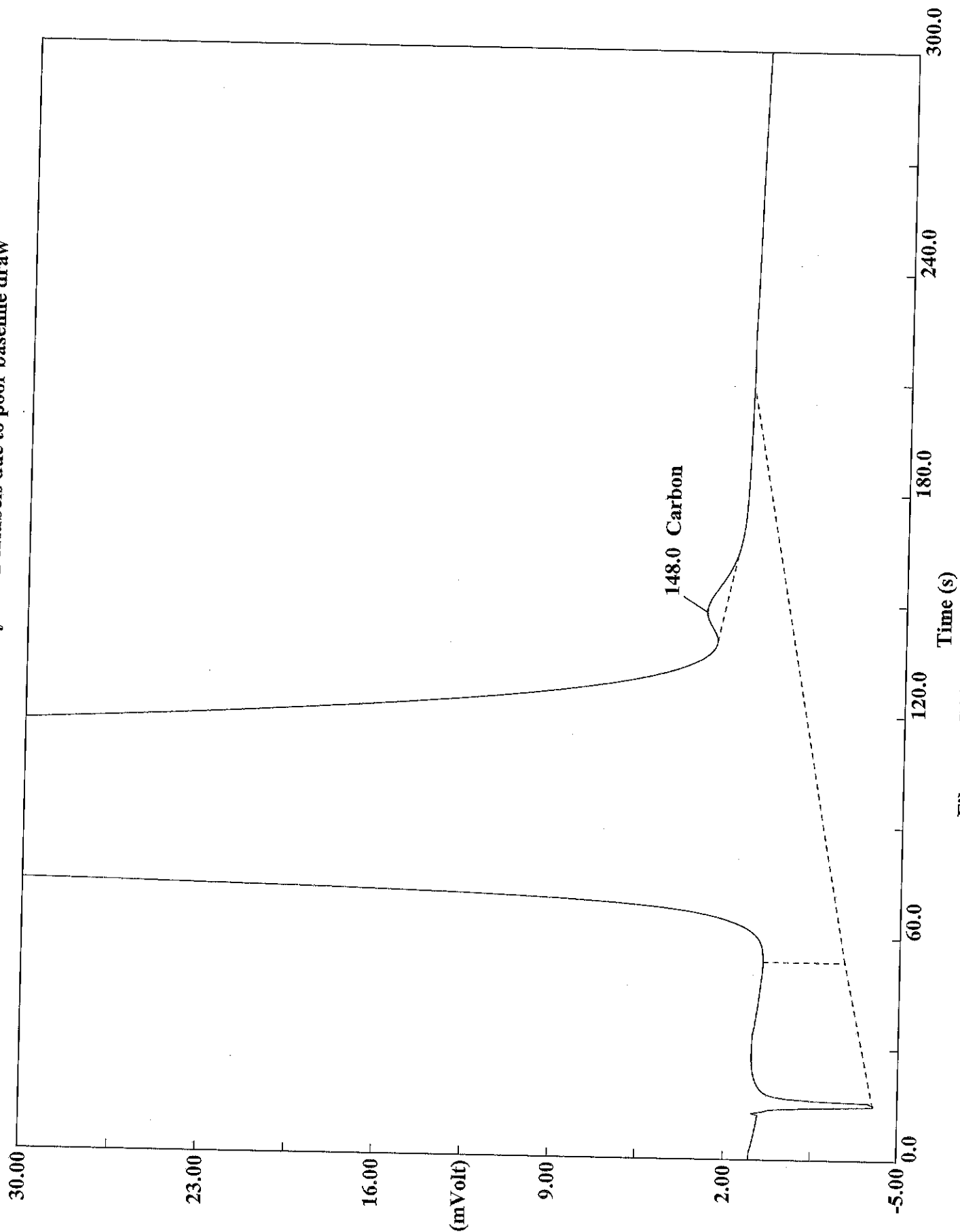
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314115.DAT

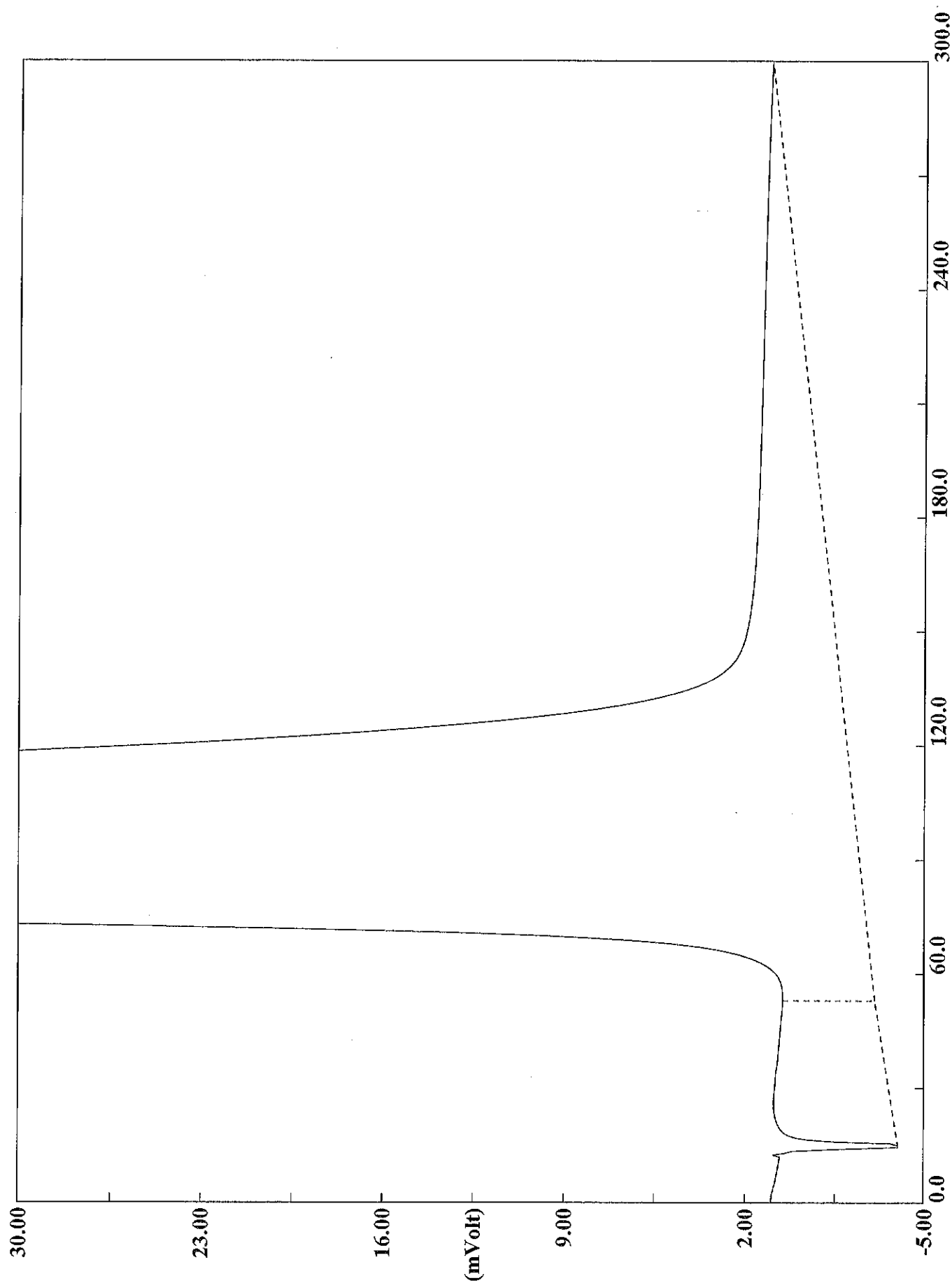
Sample name :180-37750-b-8 Analysed :10/23/2014 16:02

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



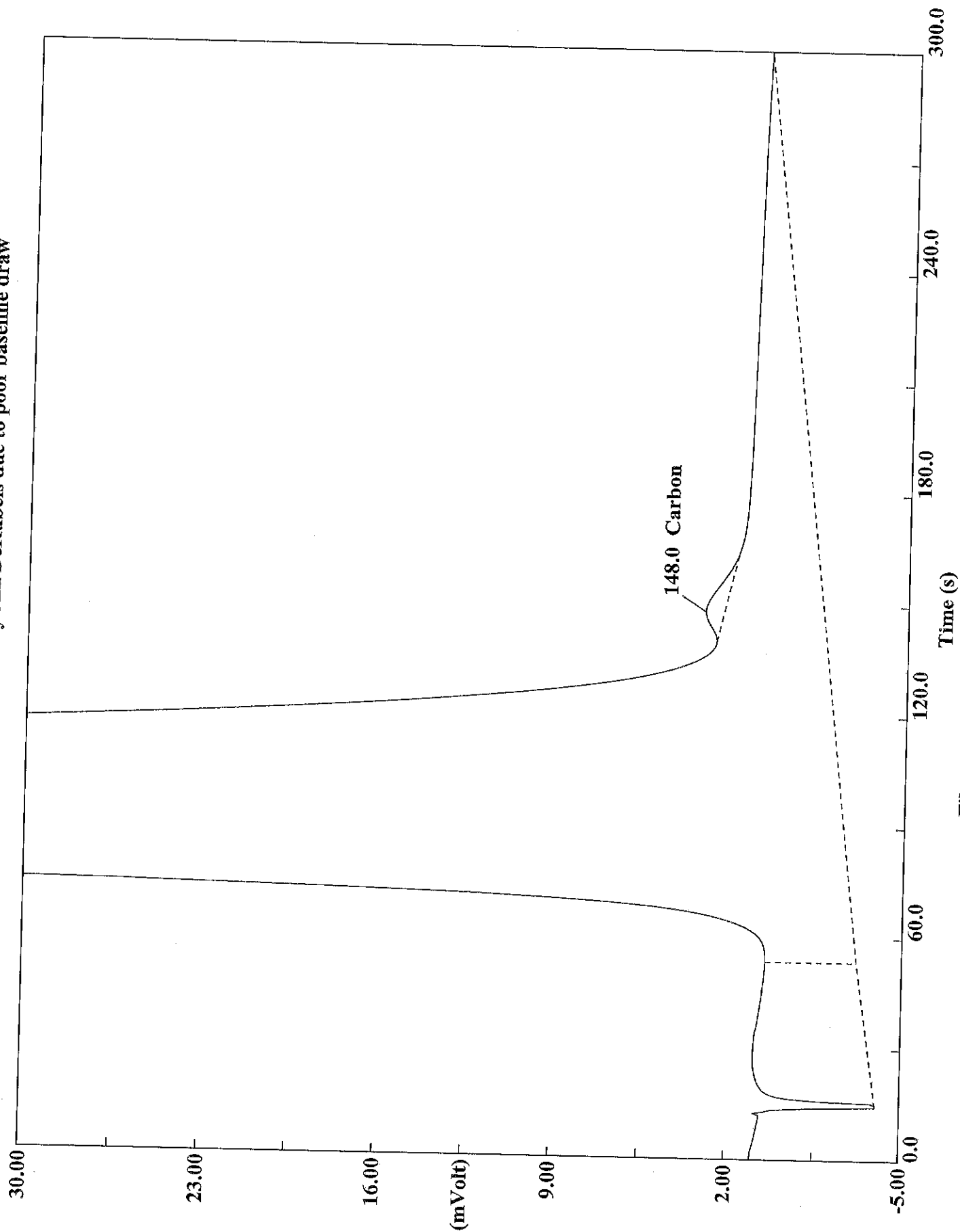
Filename C:\data\January\A102314116.DAT

Sample name : 180-37750-b-8 Analysed : 10/23/2014 16:07



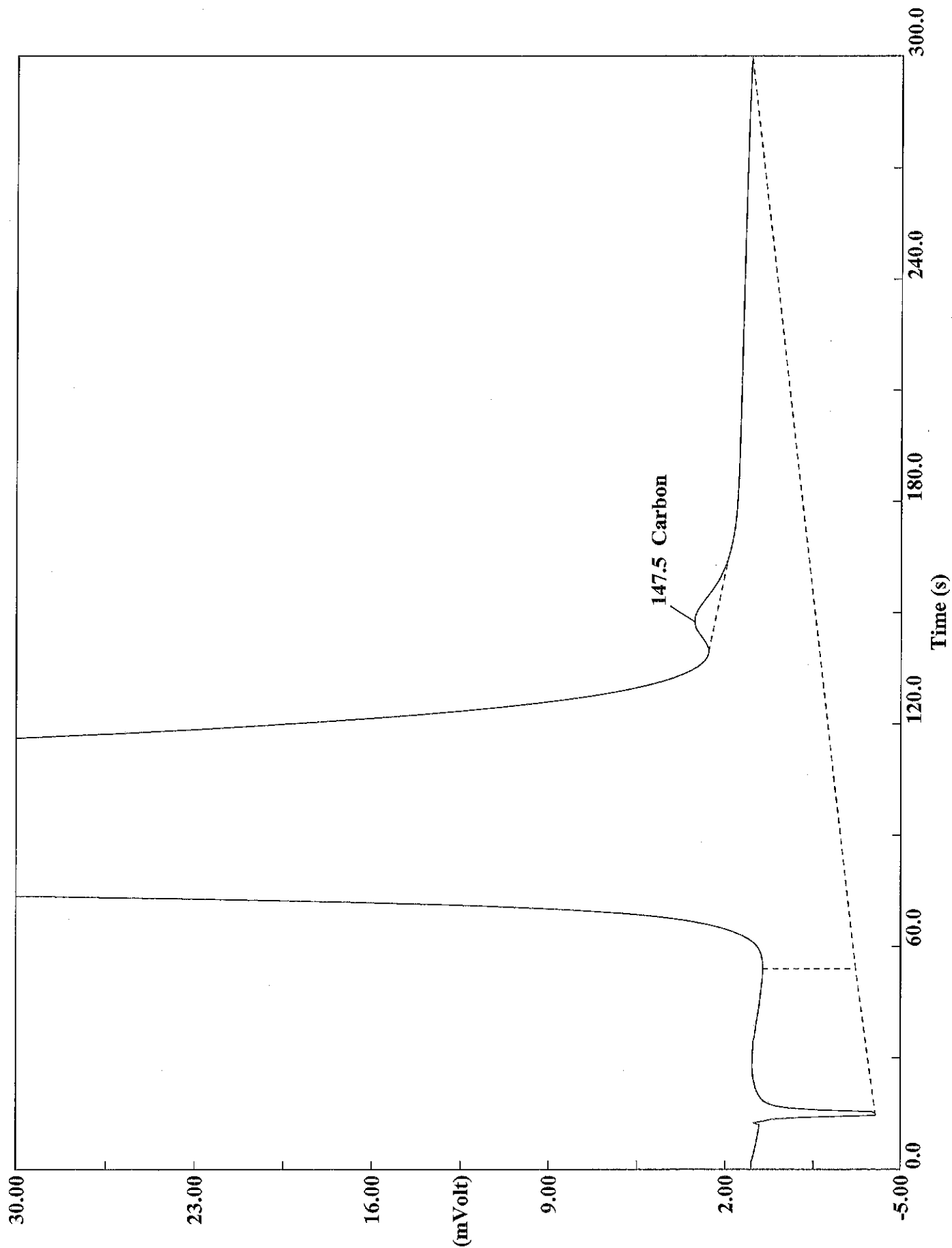
Filename C:\data\January\A102314117.DAT  
Sample name :rinse Analysed :10/23/2014 16:12

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314118.DAT

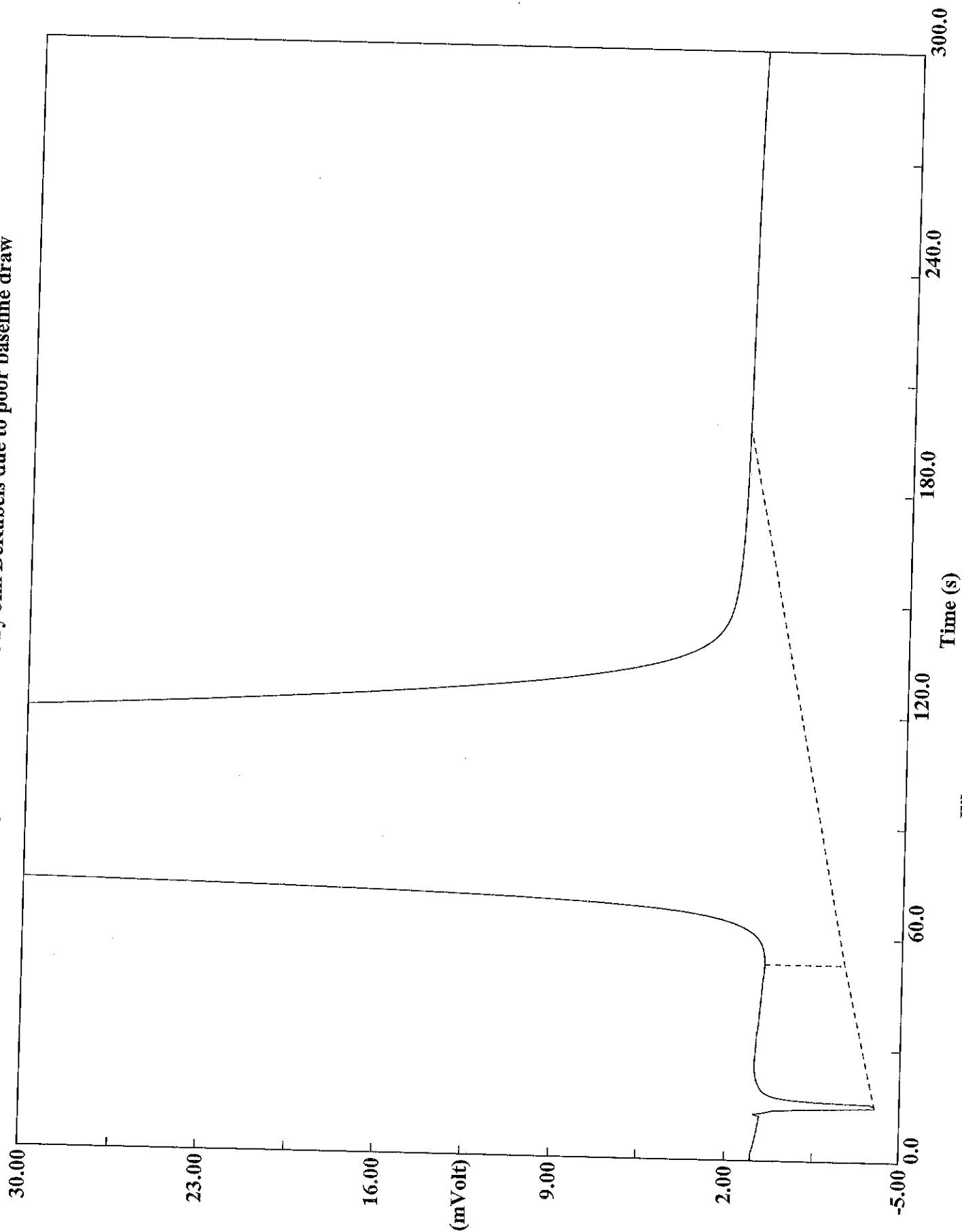
Sample name : 180-37750-b-9 Analysed : 10/23/2014 16:18



Filename C:\data\January\A102314119.DAT

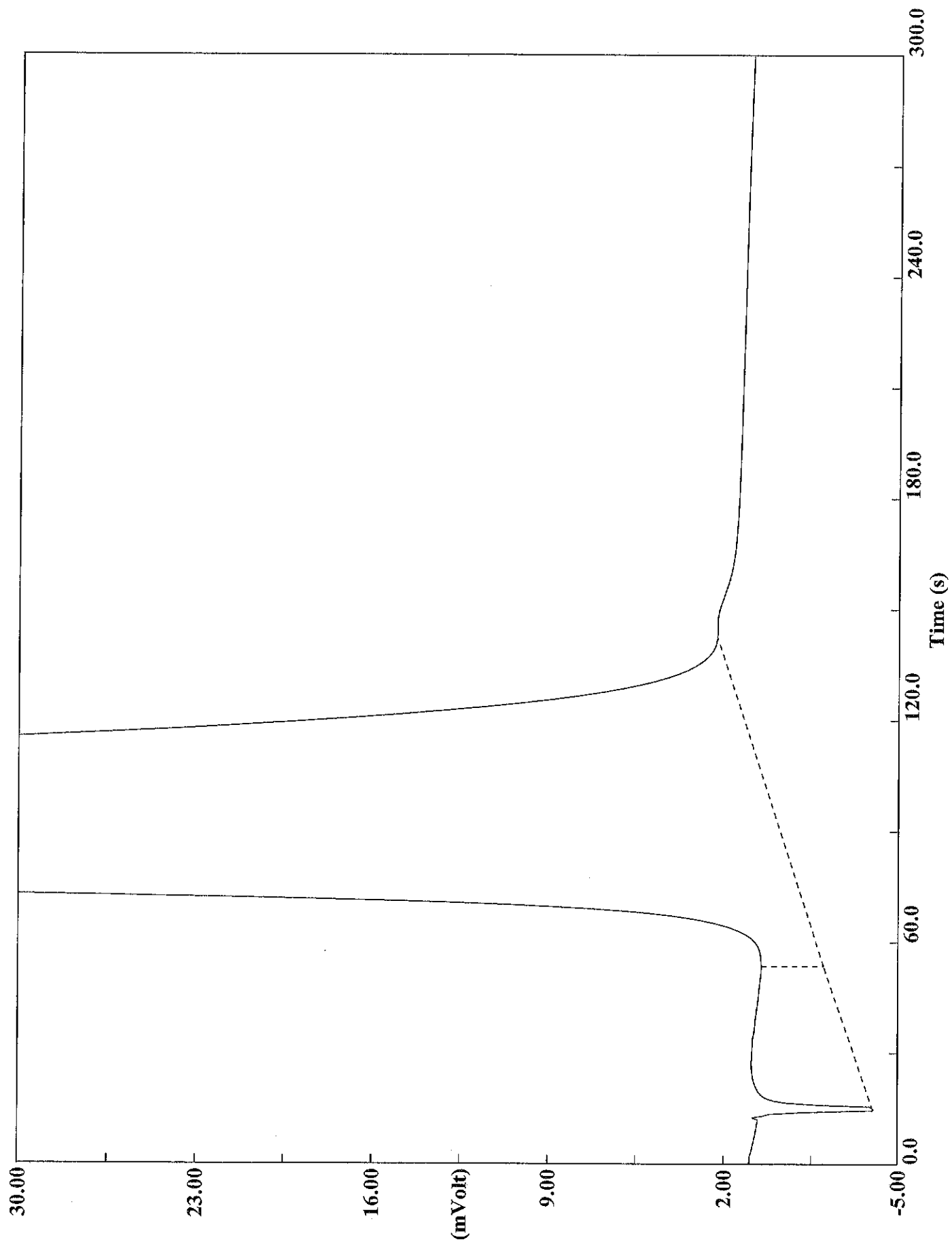
Sample name :180-37750-b-9 Analysed :10/23/2014 16:23

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314120.DAT  
Sample name :rinse Analysed :10/23/2014 16:28

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

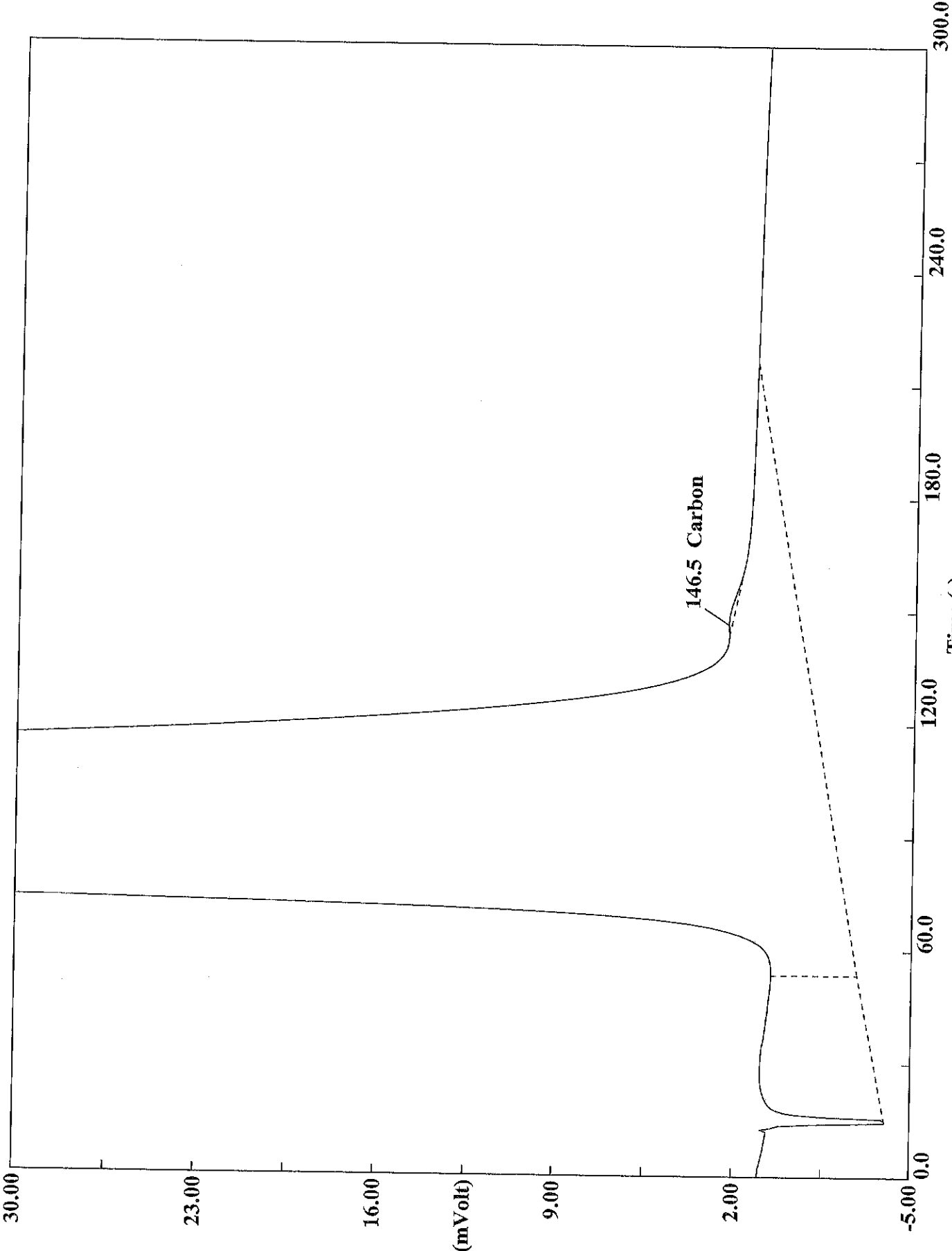


Filename C:\data\January\A102314121.DAT

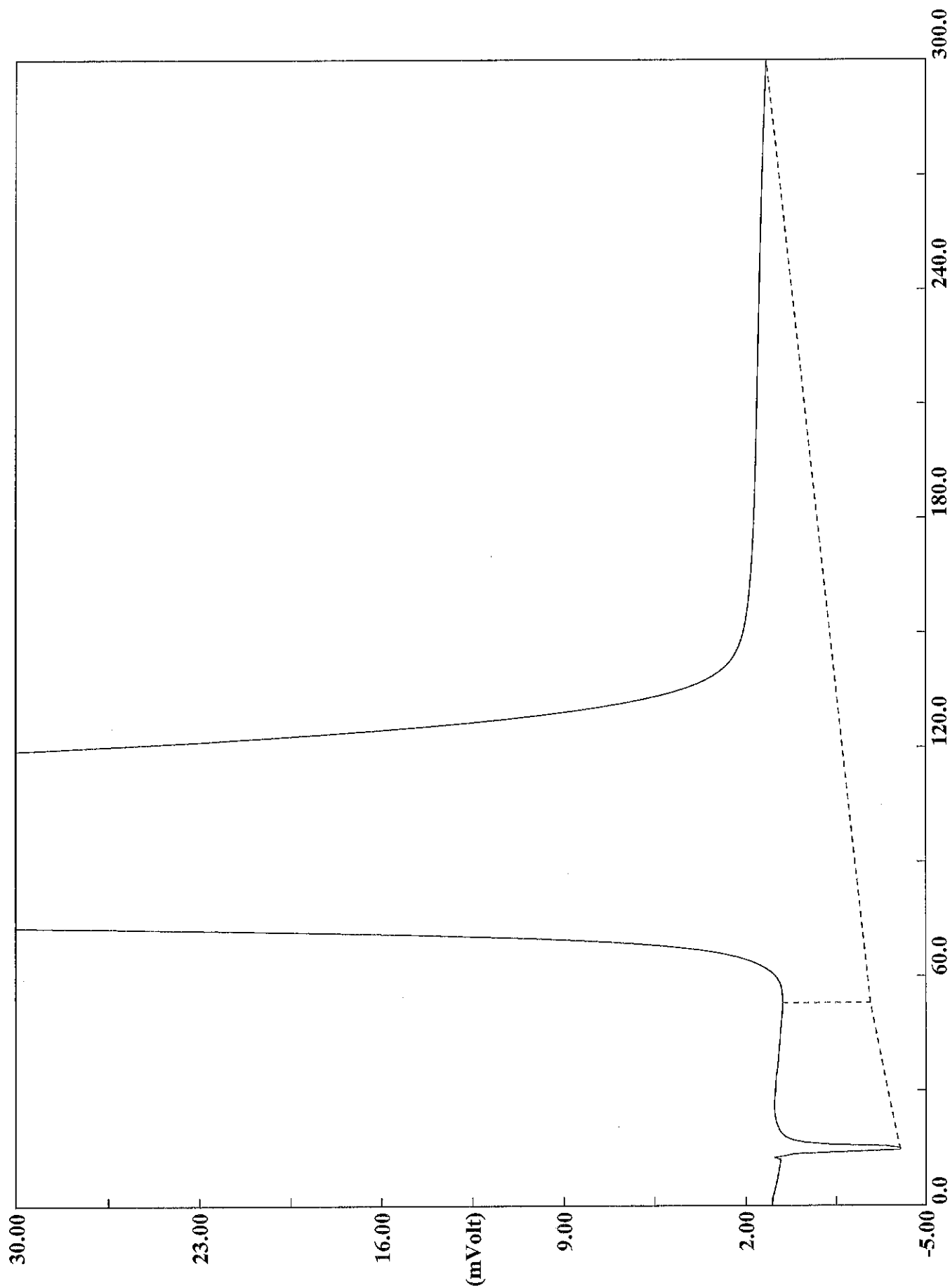
Sample name :180-37750-c-4 Analysed :10/23/2014 16:33



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

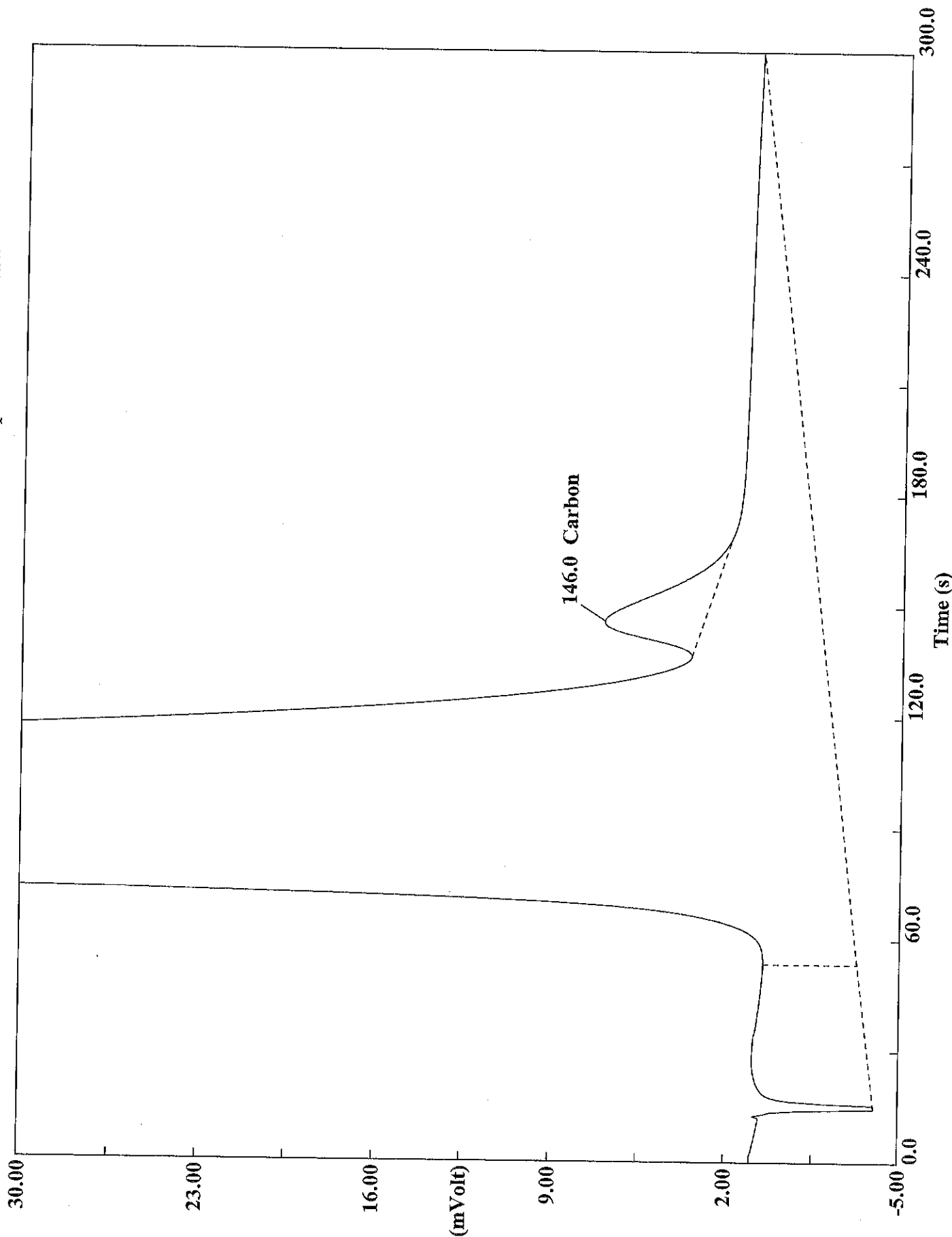


Filename C:\data\January\A102314122.DAT  
Sample name :180-37750-c-4    Analysed :10/23/2014 16:39



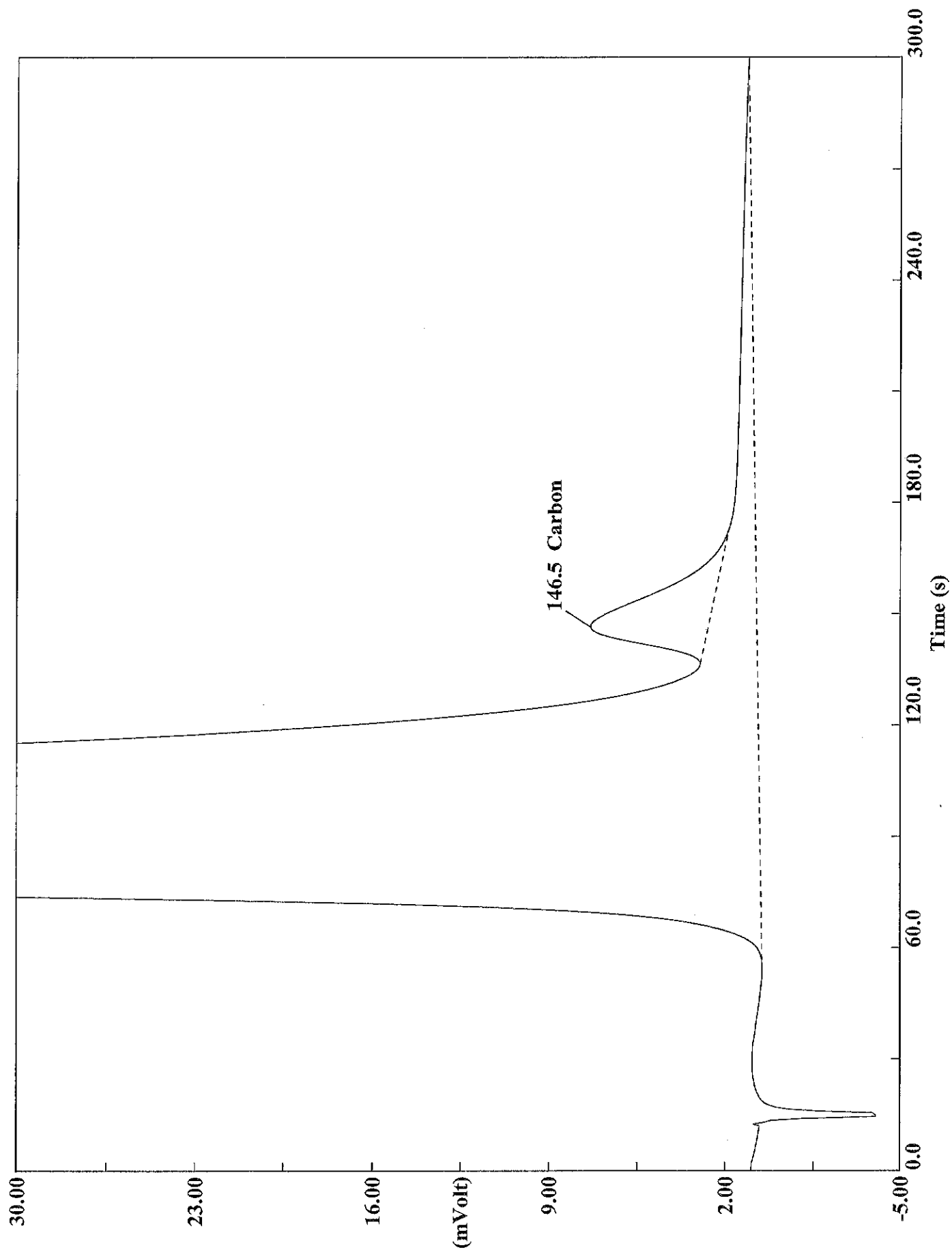
Filename C:\data\January\A102314123.DAT

Sample name :rinse Analysed :10/23/2014 16:44



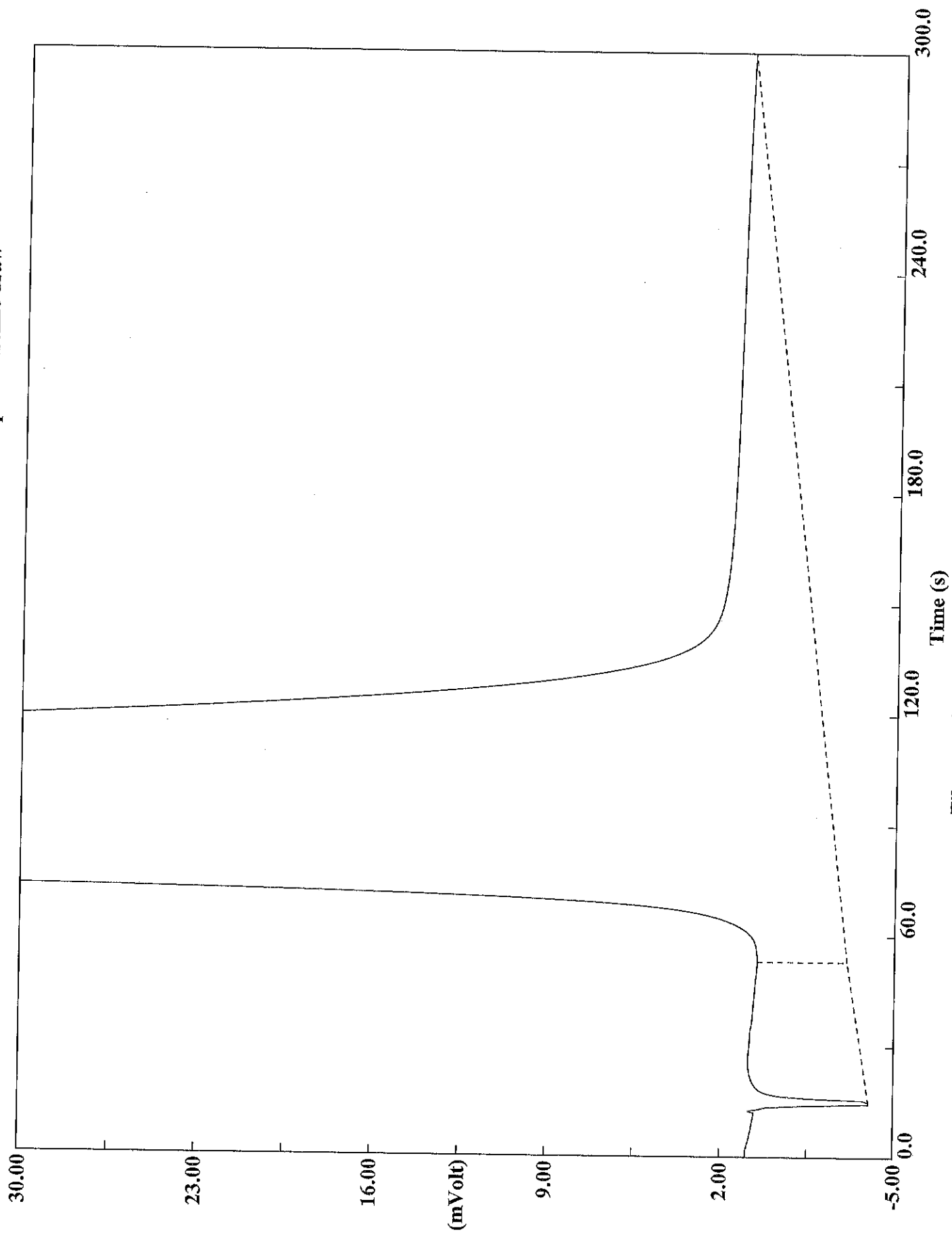
Filename C:\data\January\A102314124.DAT  
Sample name : 180-37750-a-4 ms Analysed : 10/23/2014 16:49

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



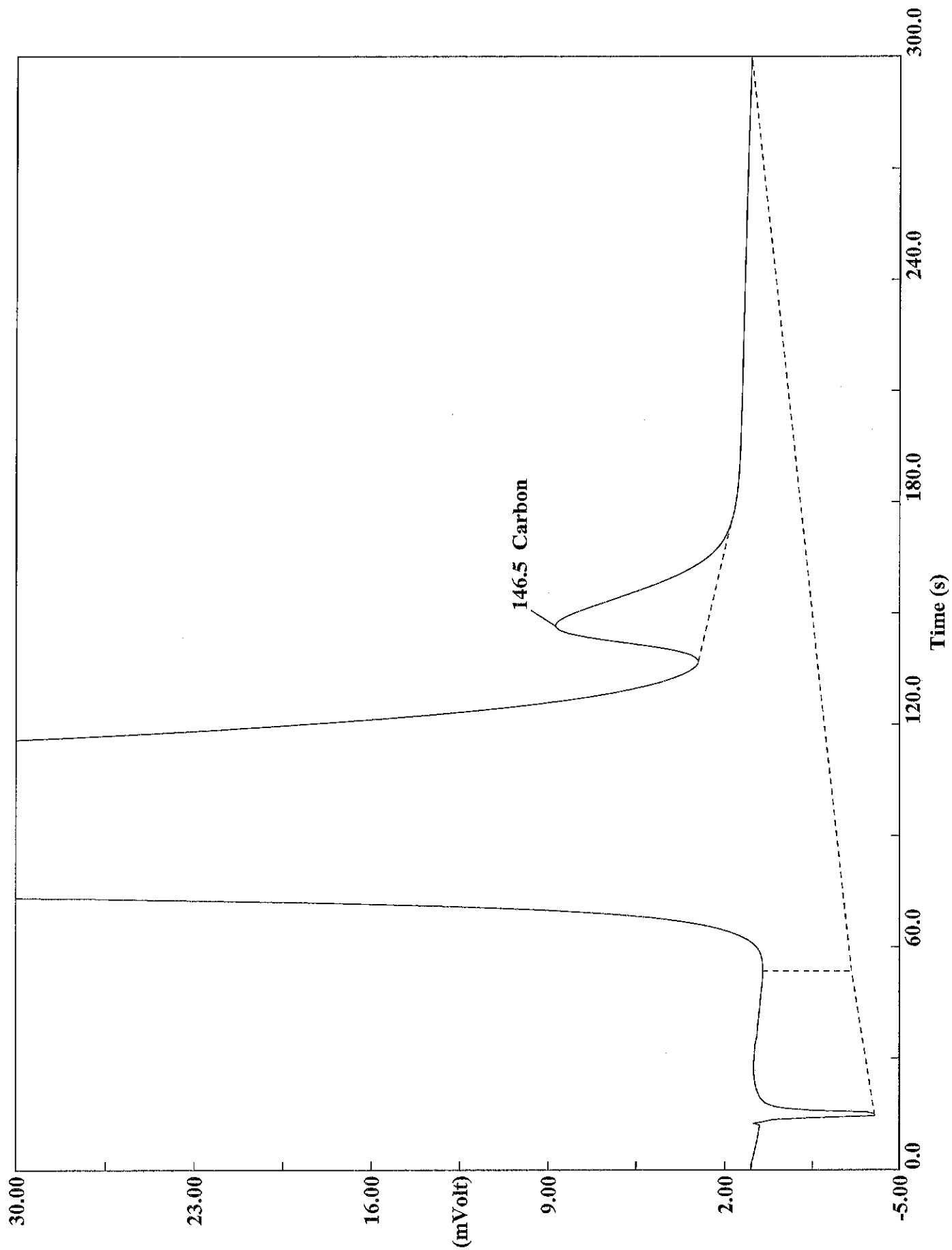
Filename C:\data\January\A102314125.DAT  
Sample name :180-37750-a-4 ms Analysed :10/23/2014 16:54

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



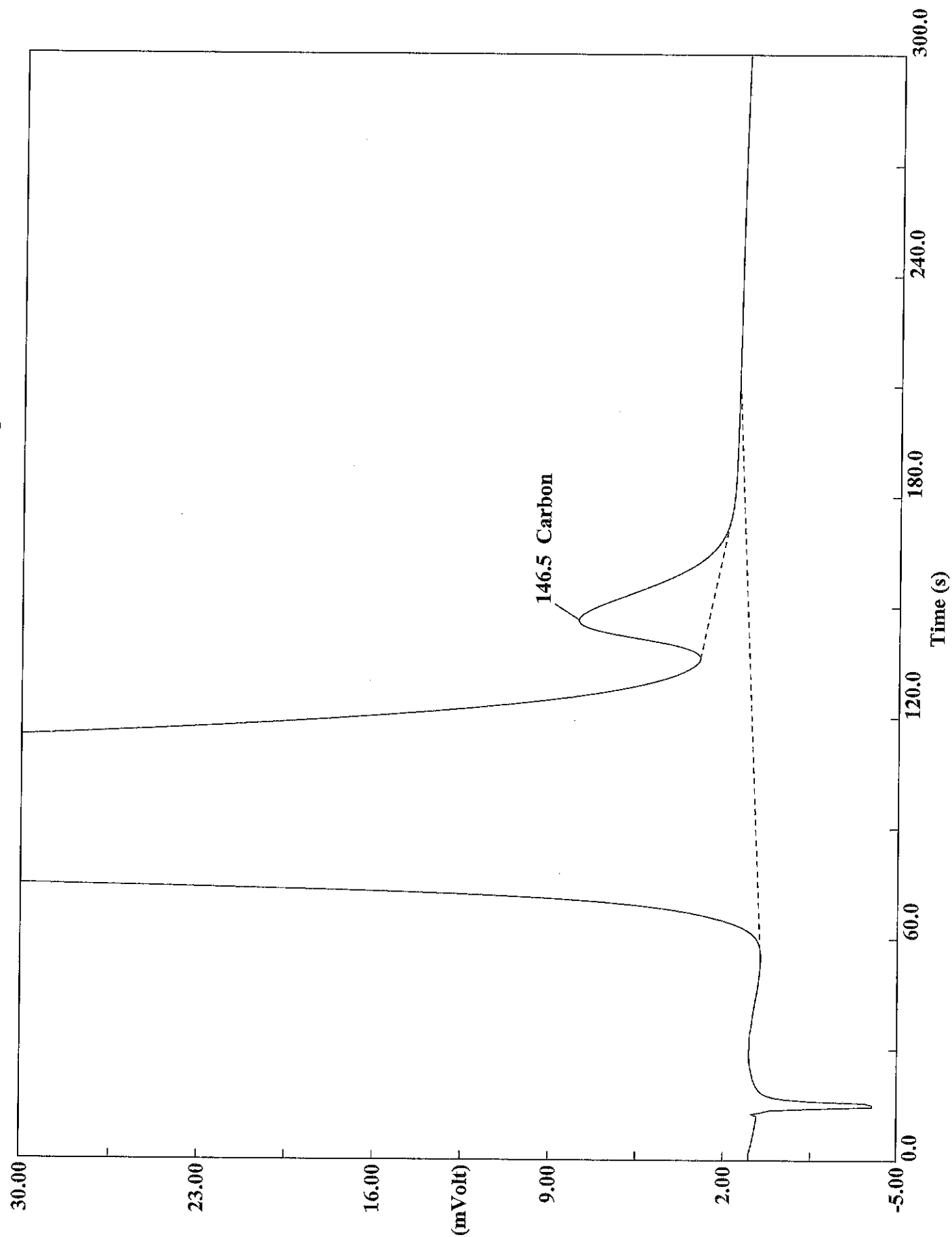
Filename C:\data\January\A102314126.DAT

Sample name :rinse Analysed :10/23/2014 17:00



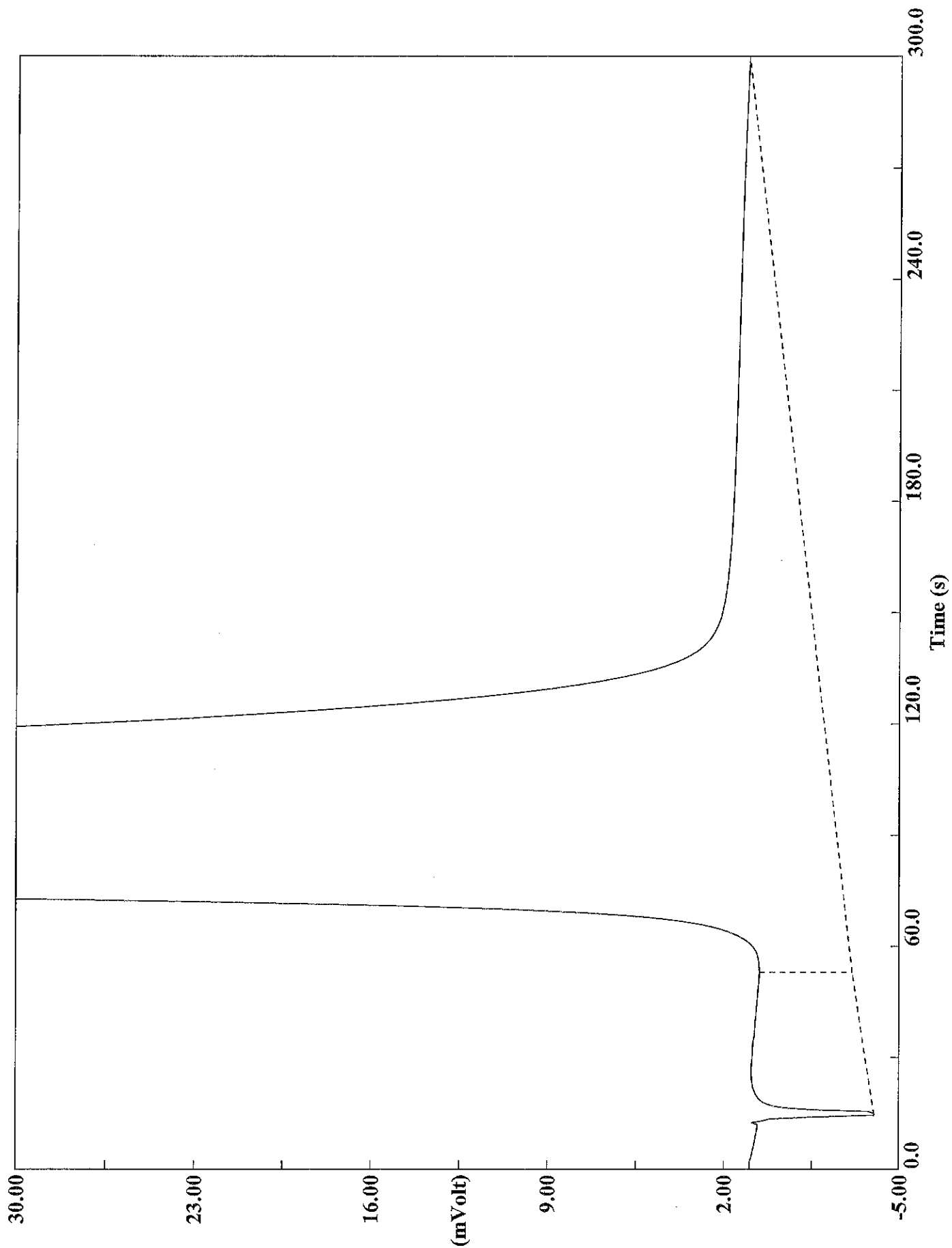
Filename C:\data\January\A102314127.DAT  
Sample name :180-37750-b-4 msd Analysed :10/23/2014 17:05

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314128.DAT

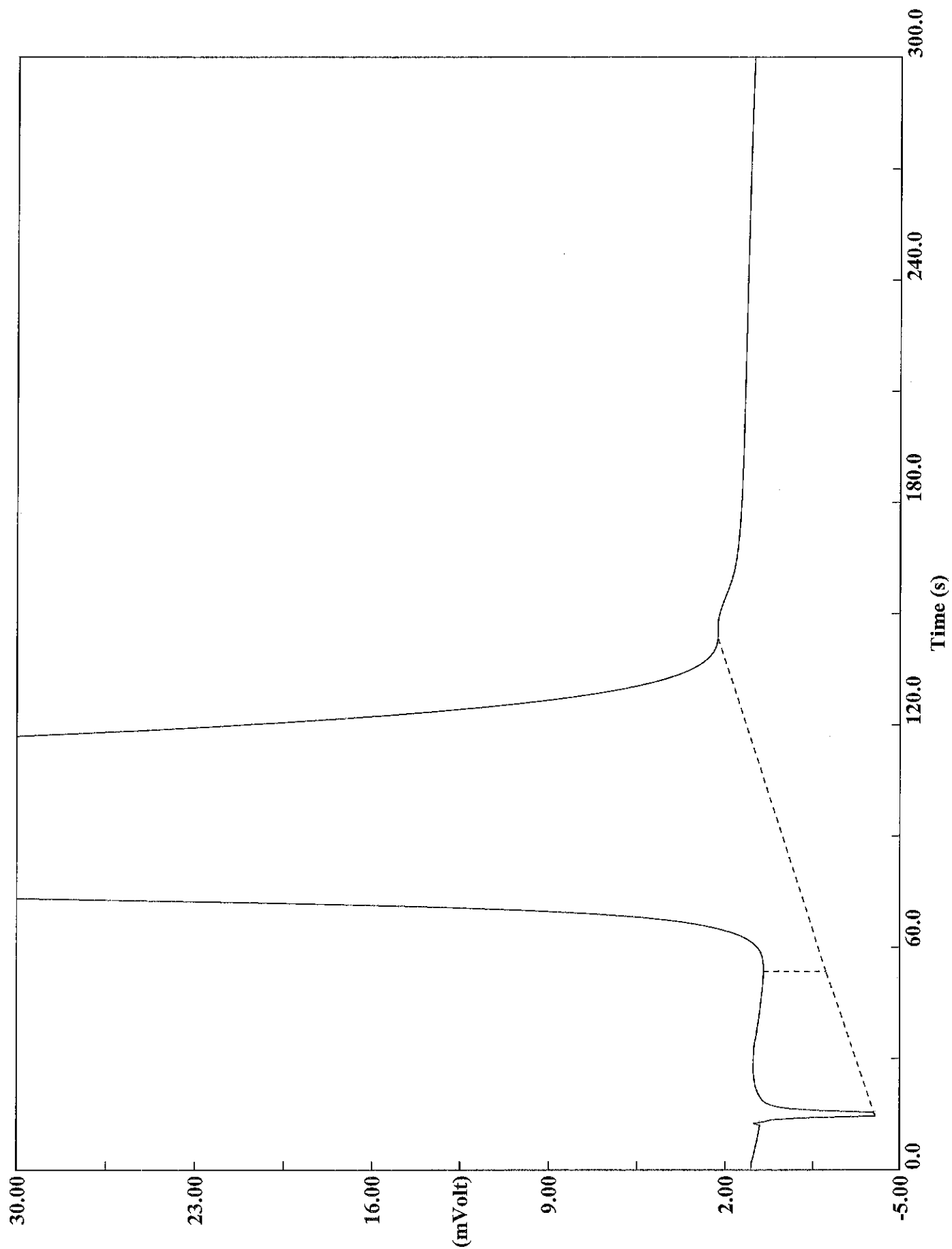
Sample name :180-37750-b-4 msd Analysed :10/23/2014 17:10



Filename C:\data\January\A102314129.DAT  
Sample name :rinse Analysed :10/23/2014 17:15



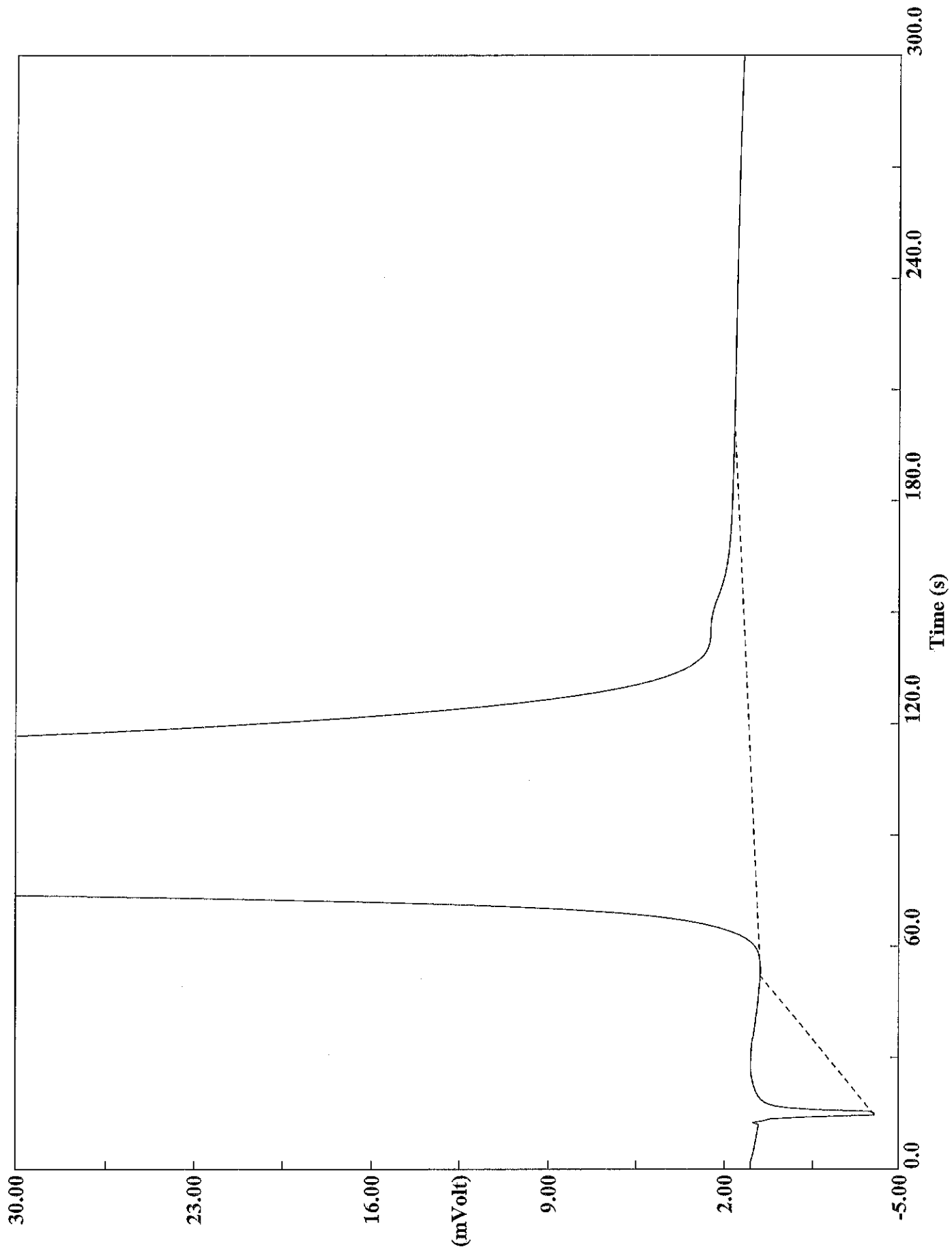
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314130.DAT

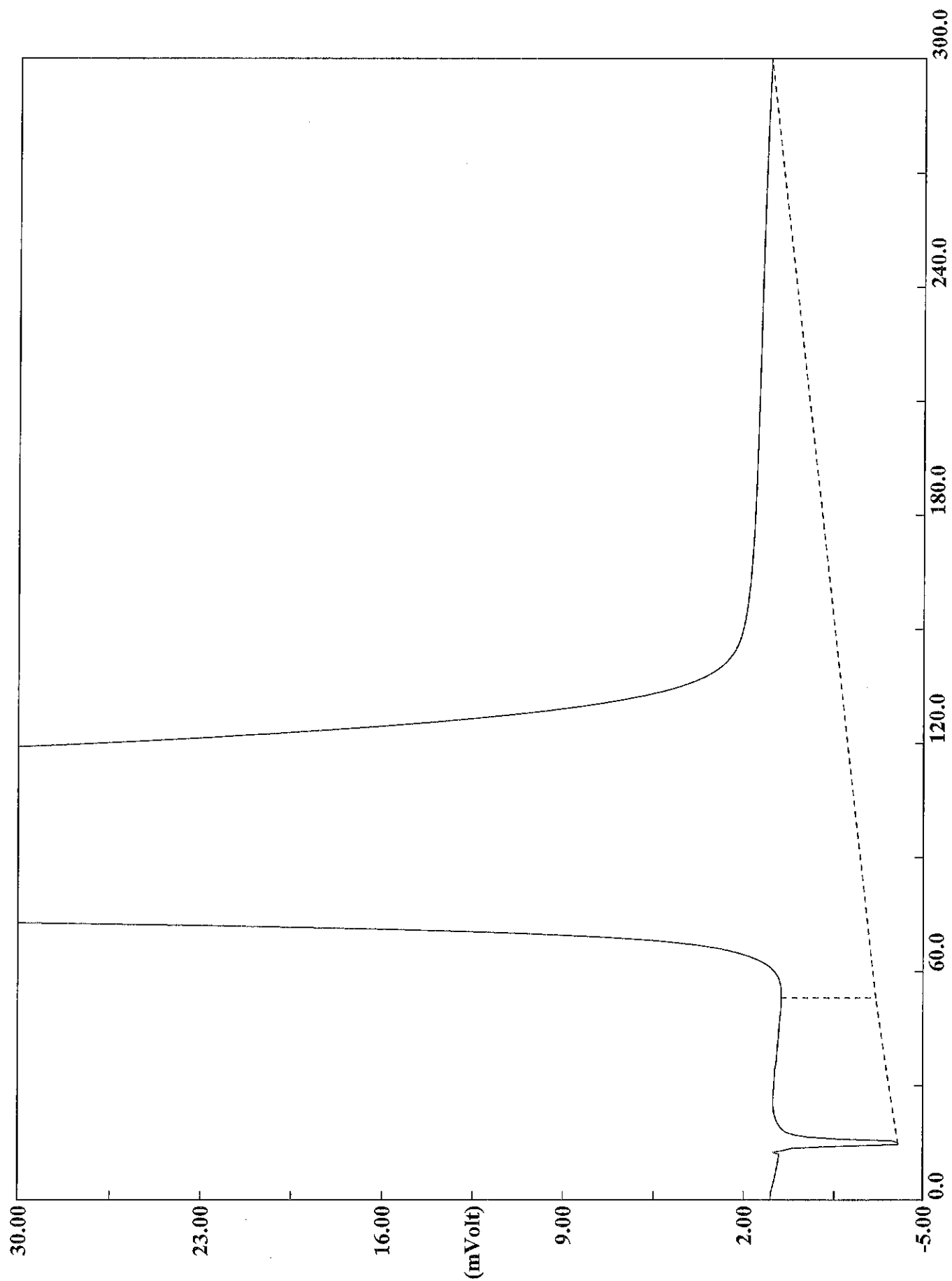
Sample name :180-37750-c-4 du Analysed :10/23/2014 17:21

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw

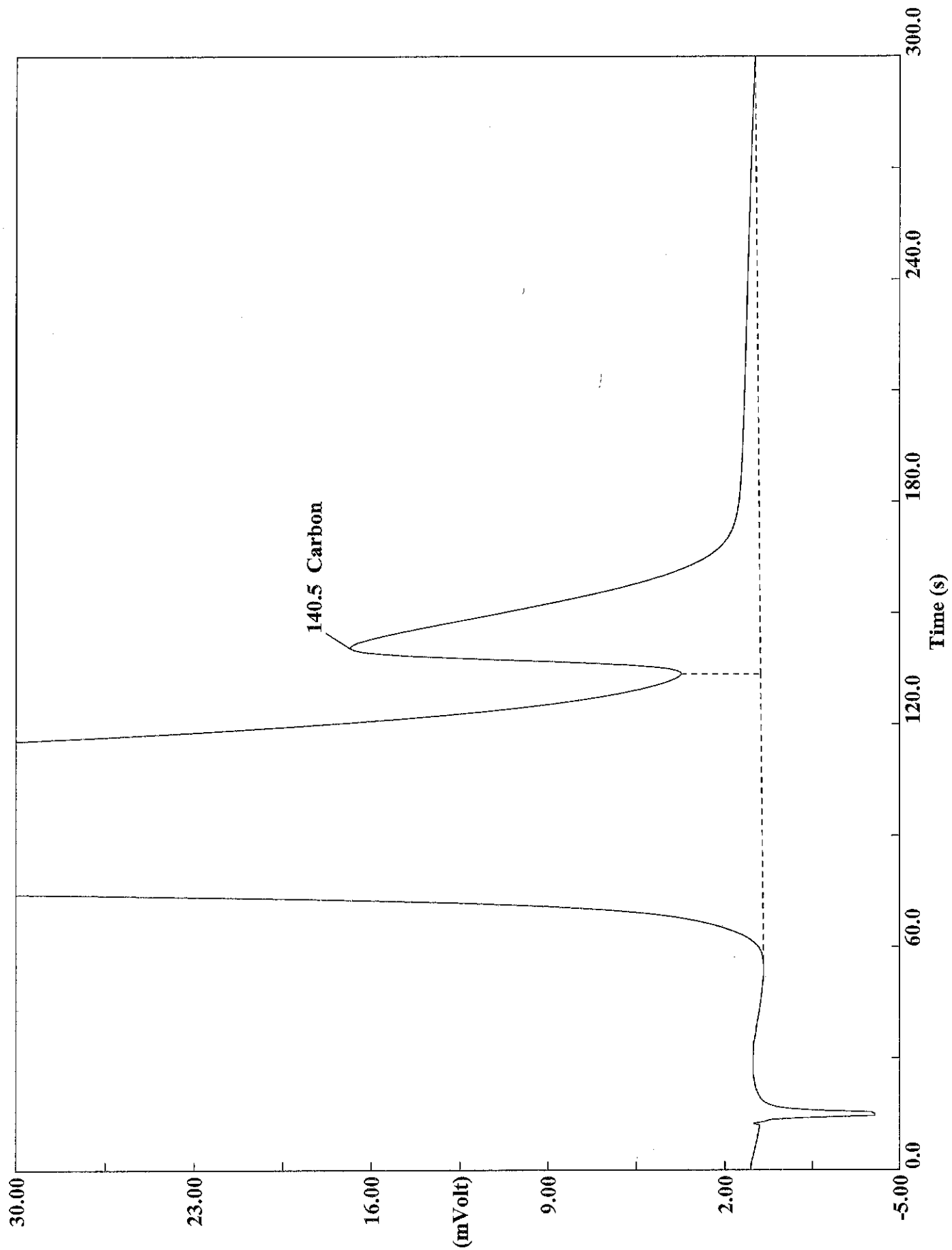


Filename C:\data\January\A102314131.DAT  
Sample name :180-37750-c-4 du Analysed :10/23/2014 17:26

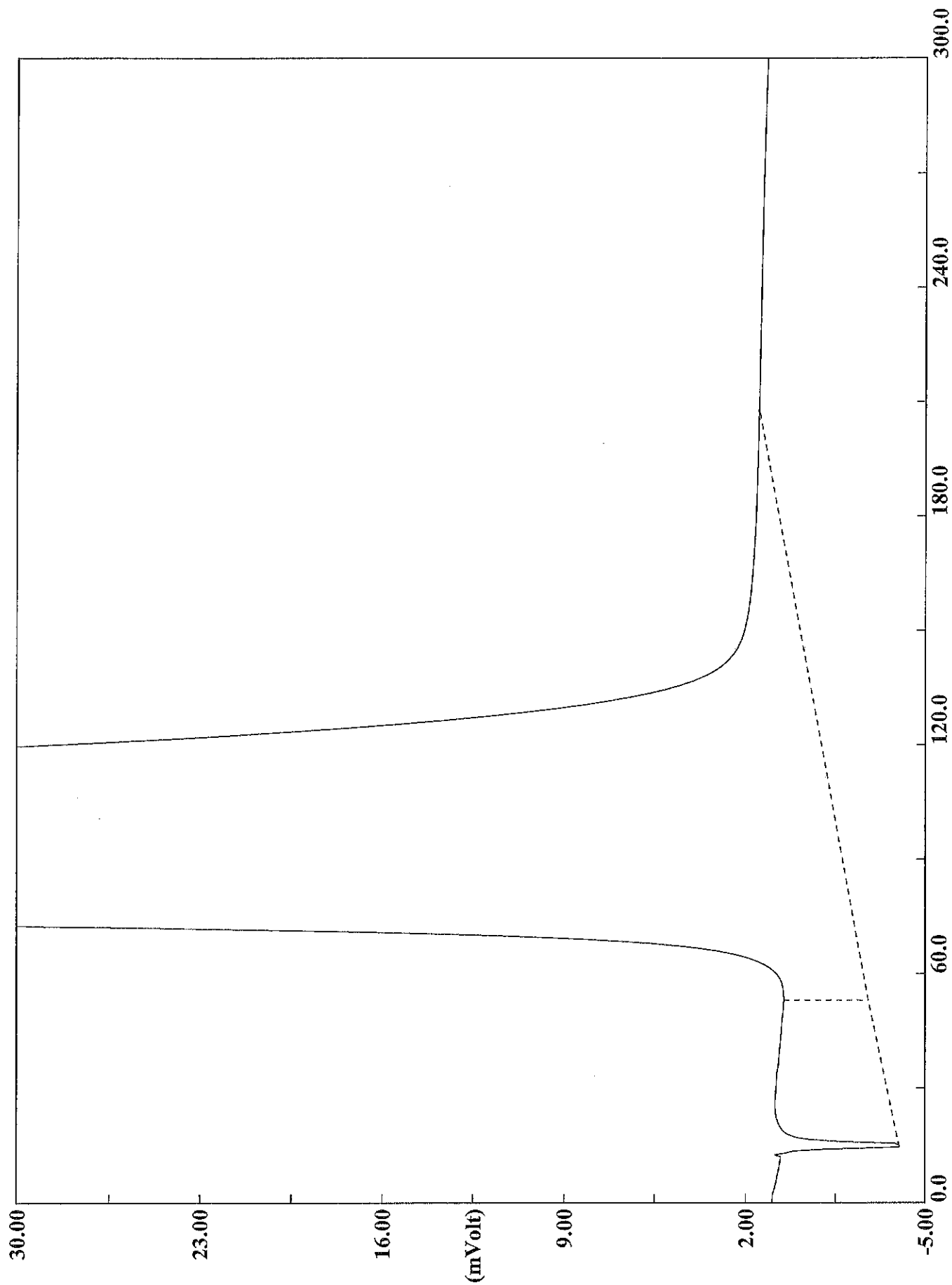
Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314132.DAT  
Sample name :rinse Analysed :10/23/2014 17:31



Filename C:\data\January\A102314133.DAT  
Sample name :ccv Analysed :10/23/2014 17:36



Filename C:\data\January\A102314134.DAT  
Sample name :ccb Analysed :10/23/2014 17:42

Date: ~~10-24~~ 10-23-14  
JD

N:\SOPs\Forms\Lloyd Kahn Sample Prep form\_Rev.1.doc  
Rev. 1, 06/13/11

A	B	C	D	E	F	G	H	I	J	K	L	M
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12	Sample	Date	Time	Weight				Conc. %	Avg Conc. mg/kg	RPD %	Higher Weight	Dilution Factor
13	ccv	A102314052	10/23/2014	10.21	100	6.25	0	1.1118				
14	ccb	A102314053	10/23/2014	10.28	20	6.25	0	0.0000				
15	180-mb OS-20CB0290	A102314054	10/23/2014	10.33	20.6	6.25	0	0.0000	0.00	0.0000	20.9	0.9589
16	180-mb OS-20CB0290	A102314055	10/23/2014	10.36	20.9	6.25	0	0.0000				
17	180-lcs	A102314056	10/23/2014	10.44	10.4	6.25	0	3.3824	33652.15	1.0227	11.9	1.6807
18	180-lcs	A102314057	10/23/2014	10.50	11.9	6.25	0	3.3480				
19	180-37686-c-1	A102314058	10/23/2014	10.56	16.9	6.25	0	1.0883	10786.12	1.8188	16.9	1.1834
20	180-37686-c-1	A102314059	10/23/2014	11.01	16.8	6.25	0	1.0687				
21	180-37686-c-2	A102314061	10/23/2014	11.11	13.6	6.25	0	1.5288	14884.57	5.4266	13.8	1.4493
22	180-37686-c-2	A102314062	10/23/2014	11.17	13.1	6.25	0	1.4481				
23	180-37686-c-3	A102314064	10/23/2014	11.27	16.1	6.25	0	1.3303	13647.70	-5.0564	16.1	1.2422
24	180-37686-c-3	A102314065	10/23/2014	11.32	15.2	6.25	0	1.3993				
25	180-37686-c-5	A102314067	10/23/2014	11.43	13.7	6.25	0	1.8784	17487.64	-8.0443	14.3	1.3986
26	180-37686-c-5	A102314068	10/23/2014	11.48	14.3	6.25	0	1.8191				
27	180-37686-c-6	A102314070	10/23/2014	11.59	11.5	6.25	0	1.5391	16172.67	-8.6721	11.5	1.7391
28	180-37686-c-6	A102314071	10/23/2014	12.04	10.7	6.25	0	1.6955				
29	ccv	A102314073	10/23/2014	12.14	100	6.25	0	1.0400				
30	ccb	A102314074	10/23/2014	12.20	20	6.25	0	0.0000				
31	180-37686-c-7	A102314075	10/23/2014	12.25	12.4	6.25	0	1.4412	16234.19	-22.4490	12.5	1.6000
32	180-37686-c-7	A102314076	10/23/2014	12.30	12.5	6.25	0	1.8056				
33	180-37686-c-8	A102314078	10/23/2014	12.41	11	6.25	0	1.6918	15627.98	16.5096	11	1.8182
34	180-37686-c-8	A102314079	10/23/2014	12.46	10.9	6.25	0	1.4338				
35	180-37686-c-9	A102314081	10/23/2014	12.56	14.9	6.25	0	1.2992	14167.56	-16.5896	14.9	1.3423
36	180-37686-c-9	A102314082	10/23/2014	13.08	14.4	6.25	0	1.5343				
37	180-37686-c-10	A102314084	10/23/2014	13.19	8.5	6.25	0	4.3252	44138.41	-4.0149	8.5	2.3529
38	180-37686-c-10	A102314085	10/23/2014	13.24	8.2	6.25	0	4.5024				
39	180-37728-d-15	A102314087	10/23/2014	13.35	11.4	6.25	0	0.9208	10241.36	-20.1739	11.4	1.7544
40	180-37728-d-15	A102314088	10/23/2014	13.40	11	6.25	0	1.1274				
41	180-37728-d-16	A102314090	10/23/2014	13.50	7.1	6.25	0	1.3517	13487.43	0.4429	7.1	2.8169
42	180-37728-d-16	A102314091	10/23/2014	13.56	6.5	6.25	0	1.3458				
43	ccv	A102314093	10/23/2014	14.06	100	6.25	0	0.9696				
44	ccb	A102314094	10/23/2014	14.11	20	6.25	0	0.0000				
45	180-37750-b-1	A102314095	10/23/2014	14.17	21.4	6.25	0	0.1772	1652.56	-8.7217	21.4	0.9346
46	180-37750-b-1	A102314096	10/23/2014	14.22	20.3	6.25	0	0.1933				
47	180-37750-b-2	A102314098	10/23/2014	14.32	5.8	6.25	0	1.4387	14413.14	-0.3663	6.3	3.1746
48	180-37750-b-2	A102314099	10/23/2014	14.38	6.3	6.25	0	1.4440				
49	180-37750-b-3	A102314101	10/23/2014	14.48	4.9	6.25	0	1.4371	13987.64	5.4830	5.5	3.6364

	A	B	C	D	E	F	G	I	J	K	L	M
50	180-37750-b-3	A102314102	10/23/2014	14:53	5.5	6.25	0	1.3604				
51	180-37750-d-5	A102314104	10/23/2014	15:04	5.9	6.25	0	1.4223	15115.00	-11.8408	5.9	3.3898
52	180-37750-d-5	A102314105	10/23/2014	15:09	5.3	6.25	0	1.6013				
53	180-37750-b-6	A102314107	10/23/2014	15:20	5.3	6.25	0	1.4544	14965.70	-5.6385	5.8	3.4483
54	180-37750-b-6	A102314108	10/23/2014	15:25	5.8	6.25	0	1.5388				
55	180-37750-b-7	A102314110	10/23/2014	15:36	21.4	6.25	0	0.2224	2109.47	10.8590	21.4	0.9346
56	180-37750-b-7	A102314111	10/23/2014	15:41	20.8	6.25	0	0.1995				
57	ccb	A102314113	10/23/2014	15:51	100	6.25	0	0.9176				
58	ccb	A102314114	10/23/2014	15:57	20	6.25	0	0.0000				
59	180-37750-b-8	A102314115	10/23/2014	16:02	8.4	6.25	0	0.9249	9234.11	0.3327	8.4	2.3810
60	180-37750-b-8	A102314116	10/23/2014	16:07	7.4	6.25	0	0.9219				
61	180-37750-b-9	A102314118	10/23/2014	16:18	5.3	6.25	0	1.3668	14681.75	-13.5495	5.3	3.7736
62	180-37750-b-9	A102314119	10/23/2014	16:23	4.9	6.25	0	1.5655				
63	180-37750-c-4	A102314121	10/23/2014	16:33	20	6.25	0	0.1754	1729.18	2.9215	21.7	0.9217
64	180-37750-c-4	A102314122	10/23/2014	16:39	21.7	6.25	0	0.1704				
65	180-37750-a-4 ms	A102314124	10/23/2014	16:49	21	6.25	0	1.3524	15430.61	-24.7135	21	0.9524
66	180-37750-a-4 ms	A102314125	10/23/2014	16:54	20.3	6.25	0	1.7337				
67	180-37750-b-4 msd	A102314127	10/23/2014	17:05	21.1	6.25	0	2.1023	19961.47	10.6334	21.1	0.9479
68	180-37750-b-4 msd	A102314128	10/23/2014	17:10	20.5	6.25	0	1.8900				
69	180-37750-c-4 du	A102314130	10/23/2014	17:21	20.1	6.25	0	0.1770	1718.59	5.9259	20.4	0.9804
70	180-37750-c-4 du	A102314131	10/23/2014	17:26	20.4	6.25	0	0.1688				
71	ccb	A102314133	10/23/2014	17:36	100	6.25	0	0.9806				
72	ccb	A102314134	10/23/2014	17:42	20	6.25	0	0.0000				



Method name : Lloyd Kahn  
Method filename : C:\data\January\102314a.mth

## Sample table

Chromatogram overwrite : Enabled

#	Sample name	Filename	Type	Weight	Hum. %
1	BY PASS	A091114001	ByP	-	0
2	BLANK	A091114002	Unk	20	0
3	BLANK	A091114003	Unk	20	0
4	1,000 KHP	A091114004	Std	200	0
5	2,500 KHP	A091114005	Std	50	0
6	5,000 KHP	A091114006	Std	100	0
7	10,000 KHP	A091114007	Std	200	0
8	25,000 KHP	A091114008	Std	50	0
9	50,000 KHP	A091114009	Std	100	0
10	100,000 KHP	A091114010	Std	200	0
11	ICV 34,960 KHP	A091114011	Unk	10.8	0
12	CCV 10,000	A091114012	Unk	100	0
13	CCB	A091114013	Unk	20	0
14	ccv	A102314052	Unk	100	0
15	ccb	A102314053	Unk	20	0
16	mb OS-2CB0290	A102314054	Unk	20.6	0
17	mb OS-2CB0290	A102314055	Unk	20.9	0
18	lcs	A102314056	Unk	10.4	0
19	lcs	A102314057	Unk	11.9	0
20	180-37686-c-1	A102314058	Unk	16.9	0
21	180-37686-c-1	A102314059	Unk	16.8	0
22	rinse	A102314060	Unk	1	0
23	180-37686-c-2	A102314061	Unk	13.6	0
24	180-37686-c-2	A102314062	Unk	13.8	0
25	rinse	A102314063	Unk	1	0
26	180-37686-c-3	A102314064	Unk	16.1	0
27	180-37686-c-3	A102314065	Unk	15.2	0
28	rinse	A102314066	Unk	1	0
29	180-37686-c-5	A102314067	Unk	13.7	0
30	180-37686-c-5	A102314068	Unk	14.3	0
31	rinse	A102314069	Unk	1	0
32	180-37686-c-6	A102314070	Unk	11.5	0
33	180-37686-c-6	A102314071	Unk	10.7	0
34	rinse	A102314072	Unk	1	0
35	ccv	A102314073	Unk	100	0
36	ccb	A102314074	Unk	20	0
37	180-37686-c-7	A102314075	Unk	12.4	0

#	Sample name	Filename	Type	Weight	Hum. %
38	180-37686-c-7	A102314076	Unk	12.5	0
39	rinse	A102314077	Unk	1	0
40	180-37686-c-8	A102314078	Unk	11	0
41	180-37686-c-8	A102314079	Unk	10.9	0
42	rinse	A102314080	Unk	1	0
43	180-37686-c-9	A102314081	Unk	14.9	0
44	180-37686-c-9	A102314082	Unk	14.4	0
45	rinse	A102314083	Unk	1	0
46	180-37686-c-10	A102314084	Unk	8.5	0
47	180-37686-c-10	A102314085	Unk	8.2	0
48	rinse	A102314086	Unk	1	0
49	180-37728-d-15	A102314087	Unk	11.4	0
50	180-37728-d-15	A102314088	Unk	11	0
51	rinse	A102314089	Unk	1	0
52	180-37728-d-16	A102314090	Unk	7.1	0
53	180-37728-d-16	A102314091	Unk	6.5	0
54	rinse	A102314092	Unk	1	0
55	ccv	A102314093	Unk	100	0
56	ccb	A102314094	Unk	20	0
57	180-37750-b-1	A102314095	Unk	21.4	0
58	180-37750-b-1	A102314096	Unk	20.3	0
59	rinse	A102314097	Unk	1	0
60	180-37750-b-2	A102314098	Unk	5.8	0
61	180-37750-b-2	A102314099	Unk	6.3	0
62	rinse	A102314100	Unk	1	0
63	180-37750-b-3	A102314101	Unk	4.9	0
64	180-37750-b-3	A102314102	Unk	5.5	0
65	rinse	A102314103	Unk	1	0
66	180-37750-d-5	A102314104	Unk	5.9	0
67	180-37750-d-5	A102314105	Unk	5.3	0
68	rinse	A102314106	Unk	1	0
69	180-37750-b-6	A102314107	Unk	5.3	0
70	180-37750-b-6	A102314108	Unk	5.8	0
71	rinse	A102314109	Unk	1	0
72	180-37750-b-7	A102314110	Unk	21.4	0
73	180-37750-b-7	A102314111	Unk	20.8	0
74	rinse	A102314112	Unk	1	0
75	ccv	A102314113	Unk	100	0
76	ccb	A102314114	Unk	20	0
77	180-37750-b-8	A102314115	Unk	8.4	0
78	180-37750-b-8	A102314116	Unk	7.4	0
79	rinse	A102314117	Unk	1	0
80	180-37750-b-9	A102314118	Unk	5.3	0
81	180-37750-b-9	A102314119	Unk	4.9	0
82	rinse	A102314120	Unk	1	0
83	180-37750-c-4	A102314121	Unk	20	0

#	Sample name	Filename	Type	Weight	Hum. %
84	180-37750-c-4	A102314122	Unk	21.7	0
85	rinse	A102314123	Unk	1	0
86	180-37750-a-4 ms	A102314124	Unk	21	0
87	180-37750-a-4 ms	A102314125	Unk	20.3	0
88	rinse	A102314126	Unk	1	0
89	180-37750-b-4 msd	A102314127	Unk	21.1	0
90	180-37750-b-4 msd	A102314128	Unk	20.5	0
91	rinse	A102314129	Unk	1	0
92	180-37750-c-4 du	A102314130	Unk	20.1	0
93	180-37750-c-4 du	A102314131	Unk	20.4	0
94	rinse	A102314132	Unk	1	0
95	ccv	A102314133	Unk	100	0
96	ccb	A102314134	Unk	20	0

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12	Sample	Data File	Date	Time	Weight			Conc. %		Avg Conc. mg/kg	RPD %	Higher Weight	Dilution Factor
13	ccv	A102314052	10/23/2014	10:21	100	6.25	0	1.1118					
14	ccb	A102314053	10/23/2014	10:28	20	6.25	0	0.0000					
15	180-mb OS-20B0290	A102314054	10/23/2014	10:33	20.6	6.25	0	0.0000		0.0000	0.00	20.9	0.9569
16	180-mb OS-20B0290	A102314055	10/23/2014	10:38	20.9	6.25	0	0.0000					
17	180-lcs	A102314056	10/23/2014	10:44	11.15	6.25	0	3.1549		33640.57	-12.4345	11.15	1.7937
18	180-lcs	A102314057	10/23/2014	10:50	11.15	6.25	0	3.5732					
19	180-37686-c-1	A102314058	10/23/2014	10:56	16.9	6.25	0	1.0883		10785.12	1.6188	16.9	1.1834
20	180-37686-c-1	A102314059	10/23/2014	11:01	16.8	6.25	0	1.0887					
21	180-37686-c-2	A102314061	10/23/2014	11:11	13.6	6.25	0	1.5288		14884.57	5.4266	13.8	1.4493
22	180-37686-c-2	A102314062	10/23/2014	11:17	13.8	6.25	0	1.4481					
23	180-37686-c-3	A102314064	10/23/2014	11:27	16.1	6.25	0	1.3303		13647.70	-5.0584	16.1	1.2422
24	180-37686-c-3	A102314065	10/23/2014	11:32	15.2	6.25	0	1.3953					
25	180-37686-c-5	A102314067	10/23/2014	11:43	13.7	6.25	0	1.8784		17487.64	-8.0443	14.3	1.3986
26	180-37686-c-5	A102314068	10/23/2014	11:48	14.3	6.25	0	1.8191					
27	180-37686-c-6	A102314070	10/23/2014	11:59	11.5	6.25	0	1.5331		16172.67	-9.6721	11.5	1.7391
28	180-37686-c-6	A102314071	10/23/2014	12:04	10.7	6.25	0	1.8955					
29	ccv	A102314073	10/23/2014	12:14	100	6.25	0	1.0400					
30	ccb	A102314074	10/23/2014	12:20	20	6.25	0	0.0000					
31	180-37686-c-7	A102314075	10/23/2014	12:25	12.4	6.25	0	1.4412		16234.19	-22.4490	12.5	1.6000
32	180-37686-c-7	A102314076	10/23/2014	12:30	12.5	6.25	0	1.8056					
33	180-37686-c-8	A102314078	10/23/2014	12:41	11	6.25	0	1.6918		15627.98	16.5096	11	1.8182
34	180-37686-c-8	A102314079	10/23/2014	12:46	10.9	6.25	0	1.4338					
35	180-37686-c-9	A102314081	10/23/2014	12:56	14.9	6.25	0	1.2992		14167.56	-16.5896	14.9	1.3423
36	180-37686-c-9	A102314082	10/23/2014	13:08	14.4	6.25	0	1.5343					
37	180-37686-c-10	A102314084	10/23/2014	13:19	8.5	6.25	0	4.3252		44138.41	-4.0149	8.5	2.3529
38	180-37686-c-10	A102314085	10/23/2014	13:24	8.2	6.25	0	4.5024					
39	180-37728-d-15	A102314087	10/23/2014	13:35	11.4	6.25	0	0.9208		10241.36	-20.1739	11.4	1.7544
40	180-37728-d-15	A102314088	10/23/2014	13:40	11	6.25	0	1.1274					
41	180-37728-d-16	A102314090	10/23/2014	13:50	7.1	6.25	0	1.3517		13487.43	0.4429	7.1	2.8169
42	180-37728-d-16	A102314091	10/23/2014	13:56	6.5	6.25	0	1.3458					
43	ccv	A102314093	10/23/2014	14:06	100	6.25	0	0.9996					
44	ccb	A102314094	10/23/2014	14:11	20	6.25	0	0.0000					
45	180-37750-b-1	A102314095	10/23/2014	14:17	21.4	6.25	0	0.1772		1862.56	-8.7217	21.4	0.9346
46	180-37750-b-1	A102314096	10/23/2014	14:22	20.3	6.25	0	0.1933					
47	180-37750-b-2	A102314098	10/23/2014	14:32	5.8	6.25	0	1.4387		14413.14	-0.3683	6.3	3.1746
48	180-37750-b-2	A102314099	10/23/2014	14:38	6.3	6.25	0	1.4440					
49	180-37750-b-3	A102314101	10/23/2014	14:48	4.9	6.25	0	1.4371		13987.64	5.4830	5.5	3.6364

	A	B	C	D	E	F	G	I	J	K	L	M
50	180-37750-b-3	A102314102	10/23/2014	14:53	5.5	6.25	0	1.3604				
51	180-37750-d-5	A102314104	10/23/2014	15:04	5.9	6.25	0	1.4223	15118.00	-11.8409	5.9	3.3898
52	180-37750-d-5	A102314105	10/23/2014	15:09	5.3	6.25	0	1.6013				
53	180-37750-b-6	A102314107	10/23/2014	15:20	5.3	6.25	0	1.4544	14965.70	-5.6385	5.8	3.4483
54	180-37750-b-6	A102314108	10/23/2014	15:25	5.8	6.25	0	1.5388				
55	180-37750-b-7	A102314110	10/23/2014	15:36	21.4	6.25	0	0.2224	2109.47	10.8590	21.4	0.9346
56	180-37750-b-7	A102314111	10/23/2014	15:41	20.8	6.25	0	0.1895				
57	ccv	A102314113	10/23/2014	15:51	100	6.25	0	0.9176				
58	ccb	A102314114	10/23/2014	15:57	20	6.25	0	0.0000				
59	180-37750-b-8	A102314115	10/23/2014	16:02	8.4	6.25	0	0.9249	9234.11	0.3327	8.4	2.3810
60	180-37750-b-8	A102314116	10/23/2014	16:07	7.4	6.25	0	0.9219				
61	180-37750-b-9	A102314118	10/23/2014	16:18	5.3	6.25	0	1.3658	14861.75	-13.5495	5.3	3.7736
62	180-37750-b-9	A102314119	10/23/2014	16:23	4.9	6.25	0	1.5655				
63	180-37750-c-4	A102314121	10/23/2014	16:33	20.85	6.25	0	0.1683	1728.15	-5.2351	20.85	0.9592
64	180-37750-c-4	A102314122	10/23/2014	16:39	20.85	6.25	0	0.1773				
65	180-37750-e-4 ms	A102314124	10/23/2014	16:49	20.65	6.25	0	1.3753	15398.30	-21.3685	20.65	0.9685
66	180-37750-e-4 ms	A102314125	10/23/2014	16:54	20.65	6.25	0	1.7043				
67	180-37750-b-4 msd	A102314127	10/23/2014	17:05	20.8	6.25	0	2.1326	19976.77	13.5077	20.8	0.9615
68	180-37750-b-4 msd	A102314128	10/23/2014	17:10	20.8	6.25	0	1.8628				
69	180-37750-c-4 du	A102314130	10/23/2014	17:21	20.25	6.25	0	0.1796	1718.21	4.4454	20.25	0.9677
70	180-37750-c-4 du	A102314131	10/23/2014	17:26	20.25	6.25	0	0.1680				
71	ccv	A102314133	10/23/2014	17:36	100	6.25	0	0.9806				
72	ccb	A102314134	10/23/2014	17:42	20	6.25	0	0.0000				

Method name : Lloyd Kahn  
 Method filename : C:\data\January\102314ax.mth

## Sample table

Chromatogram overwrite : Enabled

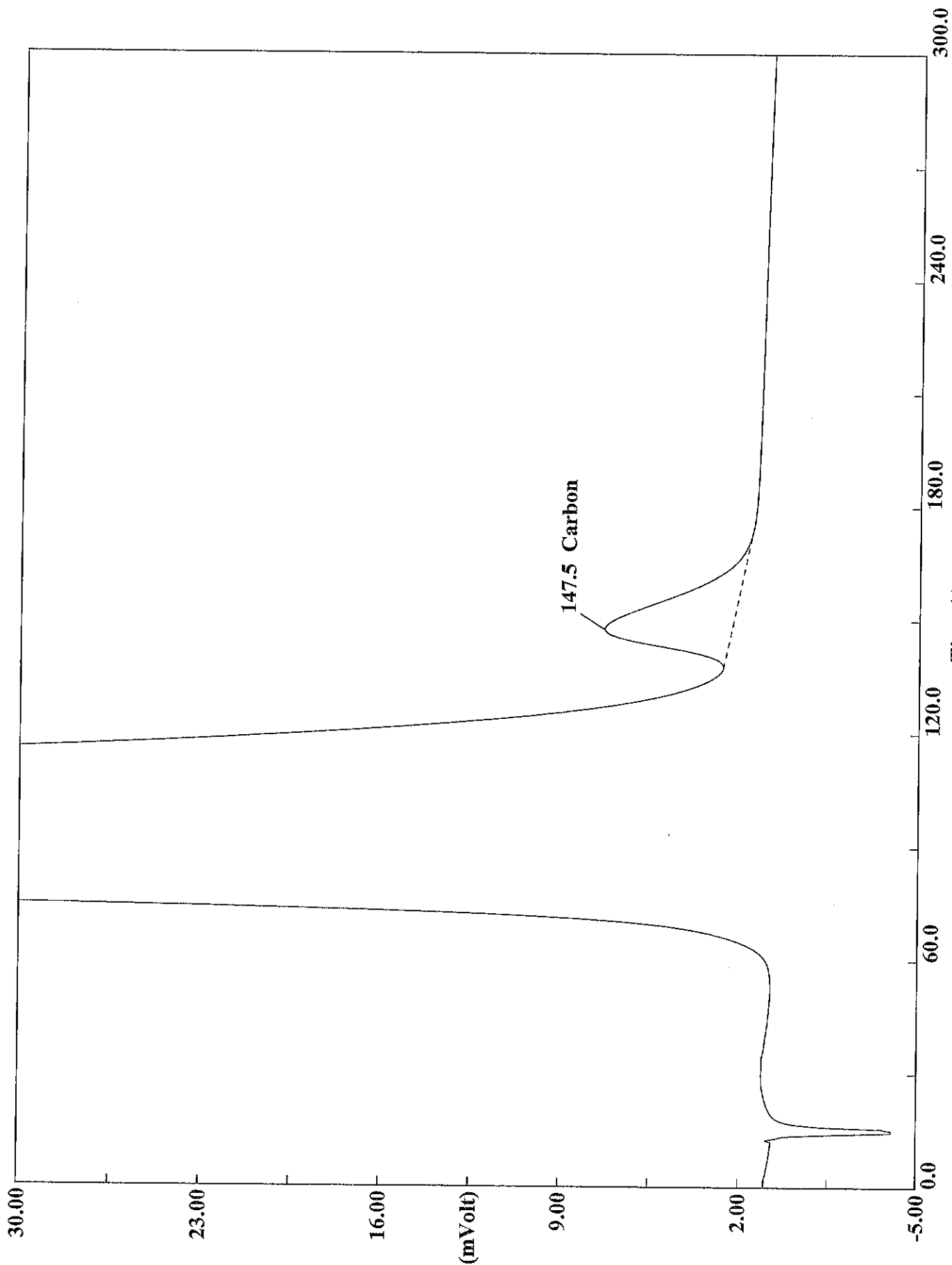
#	Sample name	Filename	Type	Weight	Hum. %
1	BY PASS	A091114001	ByP	-	0
2	BLANK	A091114002	Unk	20	0
3	BLANK	A091114003	Unk	20	0
4	1,000 KHP	A091114004	Std	200	0
5	2,500 KHP	A091114005	Std	50	0
6	5,000 KHP	A091114006	Std	100	0
7	10,000 KHP	A091114007	Std	200	0
8	25,000 KHP	A091114008	Std	50	0
9	50,000 KHP	A091114009	Std	100	0
10	100,000 KHP	A091114010	Std	200	0
11	ICV 34,960 KHP	A091114011	Unk	10.8	0
12	CCV 10,000	A091114012	Unk	100	0
13	CCB	A091114013	Unk	20	0
14	ccv	A102314052	Unk	100	0
15	ccb	A102314053	Unk	20	0
16	mb OS-2CB0290	A102314054	Unk	20.6	0
17	mb OS-2CB0290	A102314055	Unk	20.9	0
18	lcs	A102314056	Unk	11.15	0
19	lcs	A102314057	Unk	11.15	0
20	180-37686-c-1	A102314058	Unk	16.9	0
21	180-37686-c-1	A102314059	Unk	16.8	0
22	rinse	A102314060	Unk	1	0
23	180-37686-c-2	A102314061	Unk	13.6	0
24	180-37686-c-2	A102314062	Unk	13.8	0
25	rinse	A102314063	Unk	1	0
26	180-37686-c-3	A102314064	Unk	16.1	0
27	180-37686-c-3	A102314065	Unk	15.2	0
28	rinse	A102314066	Unk	1	0
29	180-37686-c-5	A102314067	Unk	13.7	0
30	180-37686-c-5	A102314068	Unk	14.3	0
31	rinse	A102314069	Unk	1	0
32	180-37686-c-6	A102314070	Unk	11.5	0
33	180-37686-c-6	A102314071	Unk	10.7	0
34	rinse	A102314072	Unk	1	0
35	ccv	A102314073	Unk	100	0
36	ccb	A102314074	Unk	20	0
37	180-37686-c-7	A102314075	Unk	12.4	0

#	Sample name	Filename	Type	Weight	Hum. %
38	180-37686-c-7	A102314076	Unk	12.5	0
39	rinse	A102314077	Unk	1	0
40	180-37686-c-8	A102314078	Unk	11	0
41	180-37686-c-8	A102314079	Unk	10.9	0
42	rinse	A102314080	Unk	1	0
43	180-37686-c-9	A102314081	Unk	14.9	0
44	180-37686-c-9	A102314082	Unk	14.4	0
45	rinse	A102314083	Unk	1	0
46	180-37686-c-10	A102314084	Unk	8.5	0
47	180-37686-c-10	A102314085	Unk	8.2	0
48	rinse	A102314086	Unk	1	0
49	180-37728-d-15	A102314087	Unk	11.4	0
50	180-37728-d-15	A102314088	Unk	11	0
51	rinse	A102314089	Unk	1	0
52	180-37728-d-16	A102314090	Unk	7.1	0
53	180-37728-d-16	A102314091	Unk	6.5	0
54	rinse	A102314092	Unk	1	0
55	ccv	A102314093	Unk	100	0
56	ccb	A102314094	Unk	20	0
57	180-37750-b-1	A102314095	Unk	21.4	0
58	180-37750-b-1	A102314096	Unk	20.3	0
59	rinse	A102314097	Unk	1	0
60	180-37750-b-2	A102314098	Unk	5.8	0
61	180-37750-b-2	A102314099	Unk	6.3	0
62	rinse	A102314100	Unk	1	0
63	180-37750-b-3	A102314101	Unk	4.9	0
64	180-37750-b-3	A102314102	Unk	5.5	0
65	rinse	A102314103	Unk	1	0
66	180-37750-d-5	A102314104	Unk	5.9	0
67	180-37750-d-5	A102314105	Unk	5.3	0
68	rinse	A102314106	Unk	1	0
69	180-37750-b-6	A102314107	Unk	5.3	0
70	180-37750-b-6	A102314108	Unk	5.8	0
71	rinse	A102314109	Unk	1	0
72	180-37750-b-7	A102314110	Unk	21.4	0
73	180-37750-b-7	A102314111	Unk	20.8	0
74	rinse	A102314112	Unk	1	0
75	ccv	A102314113	Unk	100	0
76	ccb	A102314114	Unk	20	0
77	180-37750-b-8	A102314115	Unk	8.4	0
78	180-37750-b-8	A102314116	Unk	7.4	0
79	rinse	A102314117	Unk	1	0
80	180-37750-b-9	A102314118	Unk	5.3	0
81	180-37750-b-9	A102314119	Unk	4.9	0
82	rinse	A102314120	Unk	1	0
83	180-37750-c-4	A102314121	Unk	20.85	0

#	Sample name	Filename	Type	Weight	Hum. %
84	180-37750-c-4	A102314122	Unk	20.85	0
85	rinse	A102314123	Unk	1	0
86	180-37750-a-4 ms	A102314124	Unk	20.65	0
87	180-37750-a-4 ms	A102314125	Unk	20.65	0
88	rinse	A102314126	Unk	1	0
89	180-37750-b-4 msd	A102314127	Unk	20.8	0
90	180-37750-b-4 msd	A102314128	Unk	20.8	0
91	rinse	A102314129	Unk	1	0
92	180-37750-c-4 du	A102314130	Unk	20.25	0
93	180-37750-c-4 du	A102314131	Unk	20.25	0
94	rinse	A102314132	Unk	1	0
95	ccv	A102314133	Unk	100	0
96	ccb	A102314134	Unk	20	0



Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314056.DAT  
Sample name :lcs Analysed :10/23/2014 10:44

# Eager 300 Report

Page: 1 Sample: lcs (A102314056)

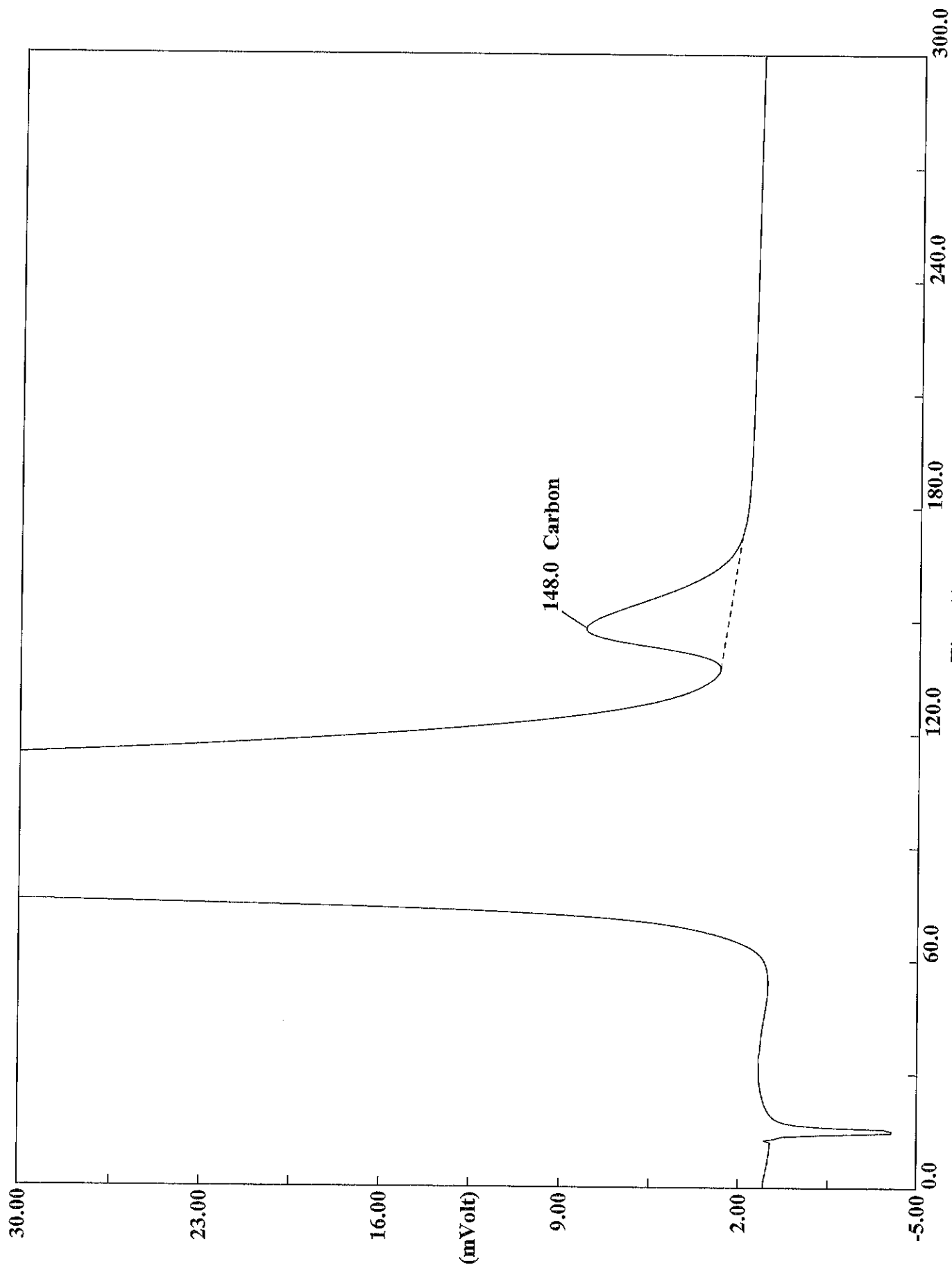
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314056  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:44 Printed : 10/24/2014 04:32  
Sample ID : lcs (# 18)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11.15

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	3.1549	148	695411 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314057.DAT  
Sample name :lcs Analysed :10/23/2014 10:50

# Eager 300 Report

Page: 1 Sample: lcs (A102314057)

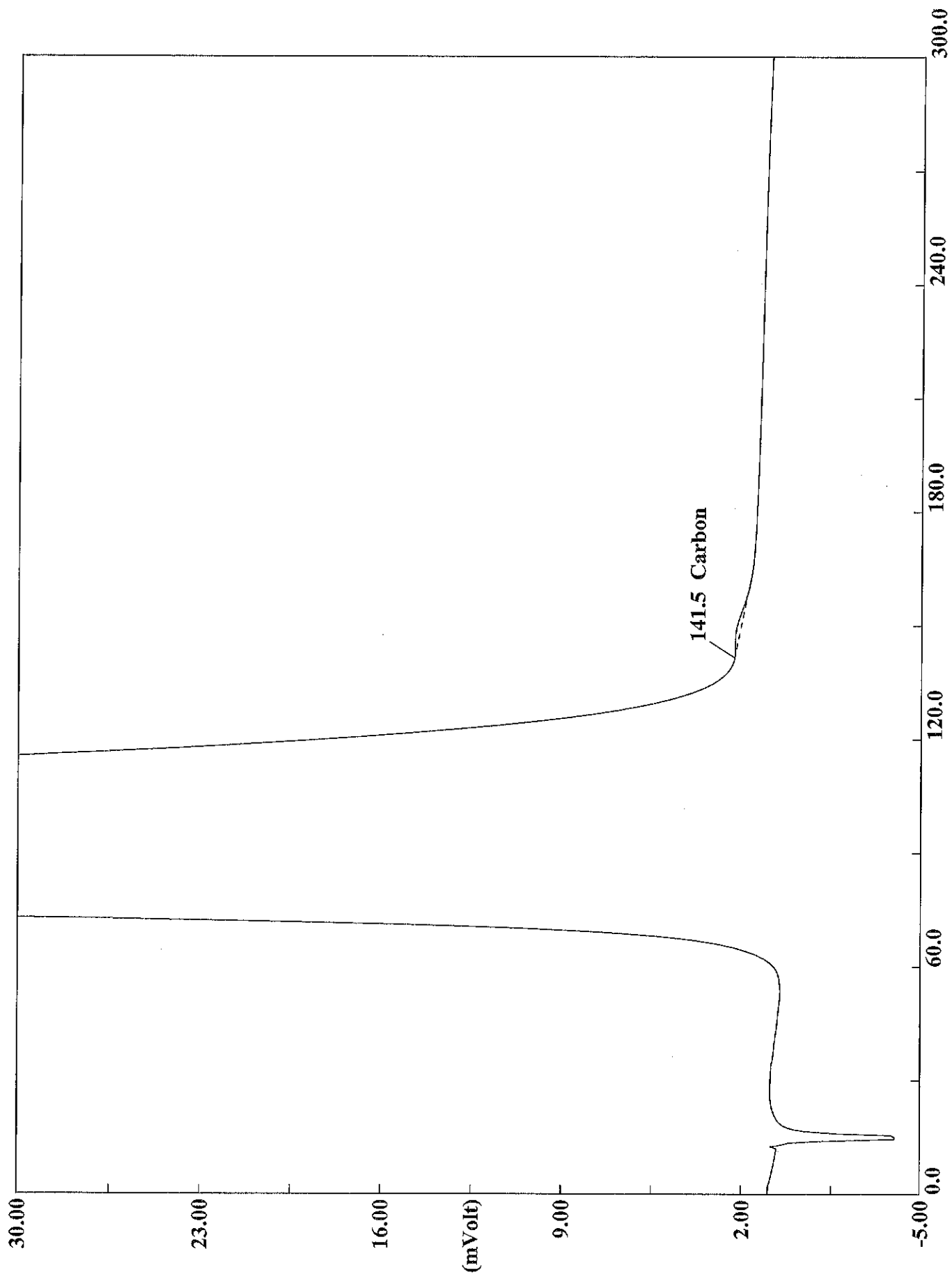
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314057  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 10:50 Printed : 10/24/2014 04:32  
Sample ID : lcs (# 19)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 11.15

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	3.5732	148	795946 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314121.DAT

Sample name :180-37750-c-4 Analysed :10/23/2014 16:33

# Eager 300 Report

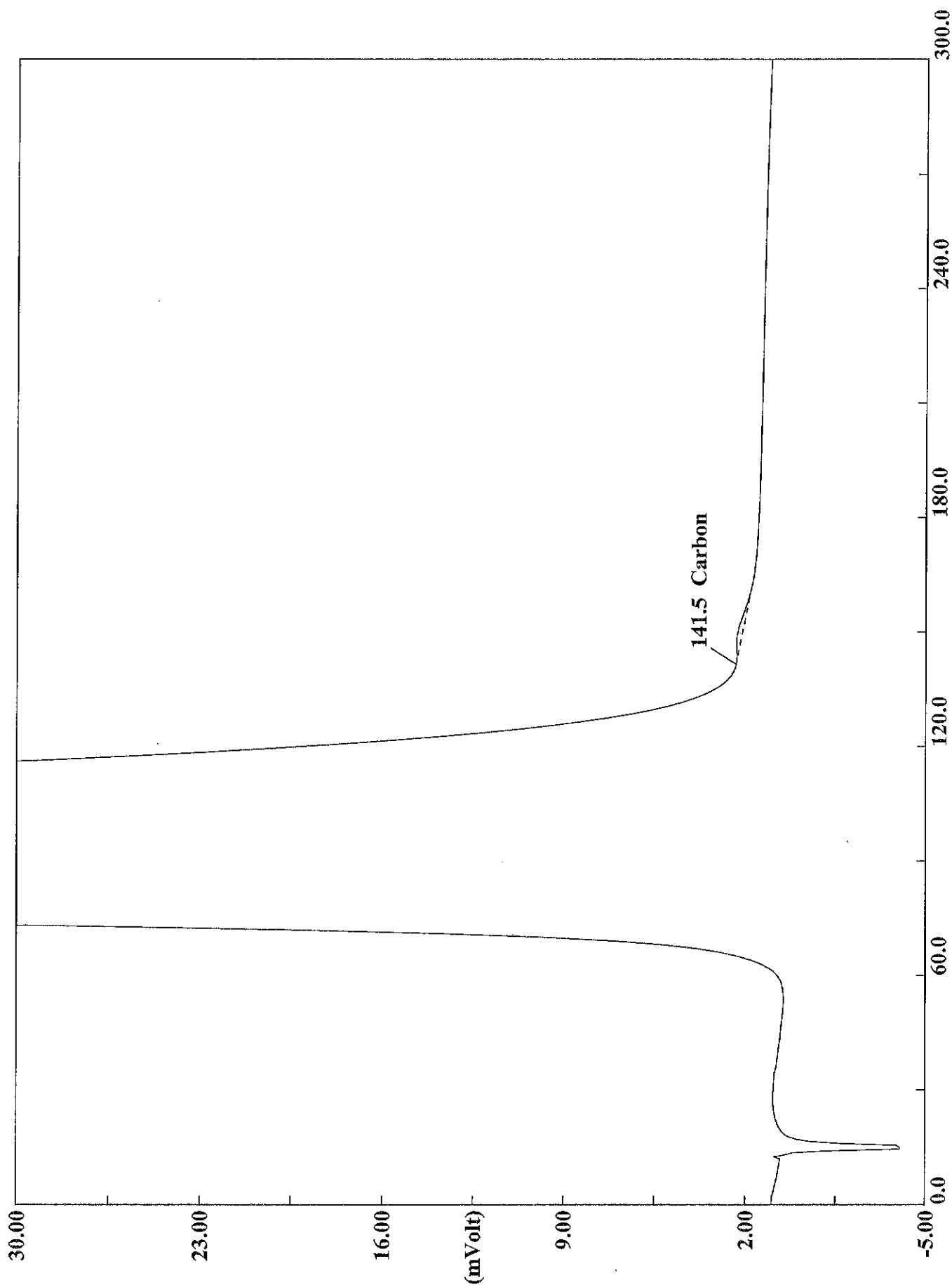
Page: 1 Sample: 180-37750-c-4 (A102314121)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314121  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:33 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-c-4 (# 83)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.85

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1683	142	12792 mi		1.000000	



Filename C:\data\January\A102314122.DAT

Sample name :180-37750-c-4 Analysed :10/23/2014 16:39

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 (A102314122)

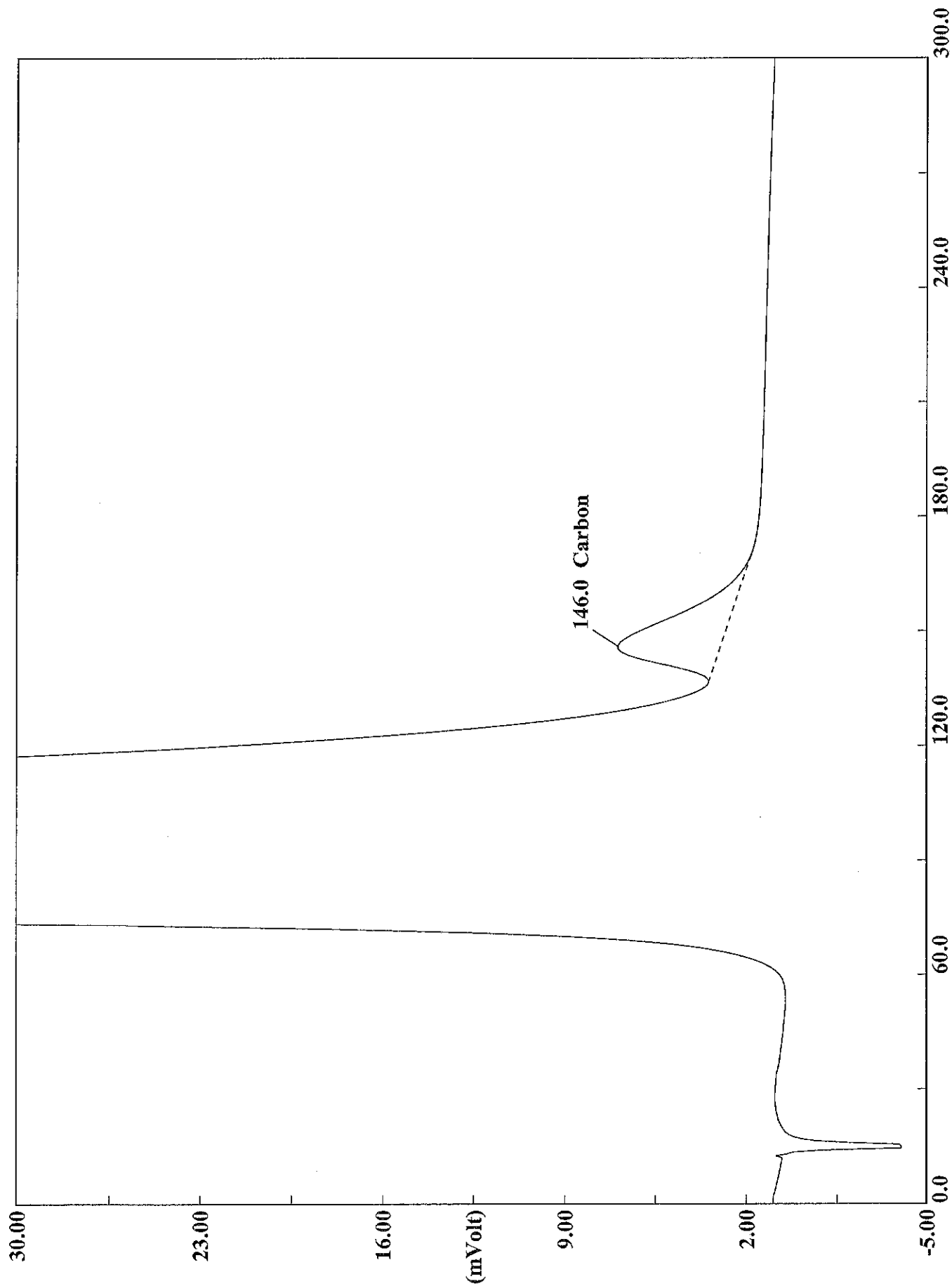
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314122  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:39 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-c-4 (# 84)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.85

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1773	142	16858	mi	1.000000	





Filename C:\data\January\A102314124.DAT  
Sample name :180-37750-a-4 ms Analysed :10/23/2014 16:49

# Eager 300 Report

Page: 1 Sample: 180-37750-a-4 ms (A102314124)

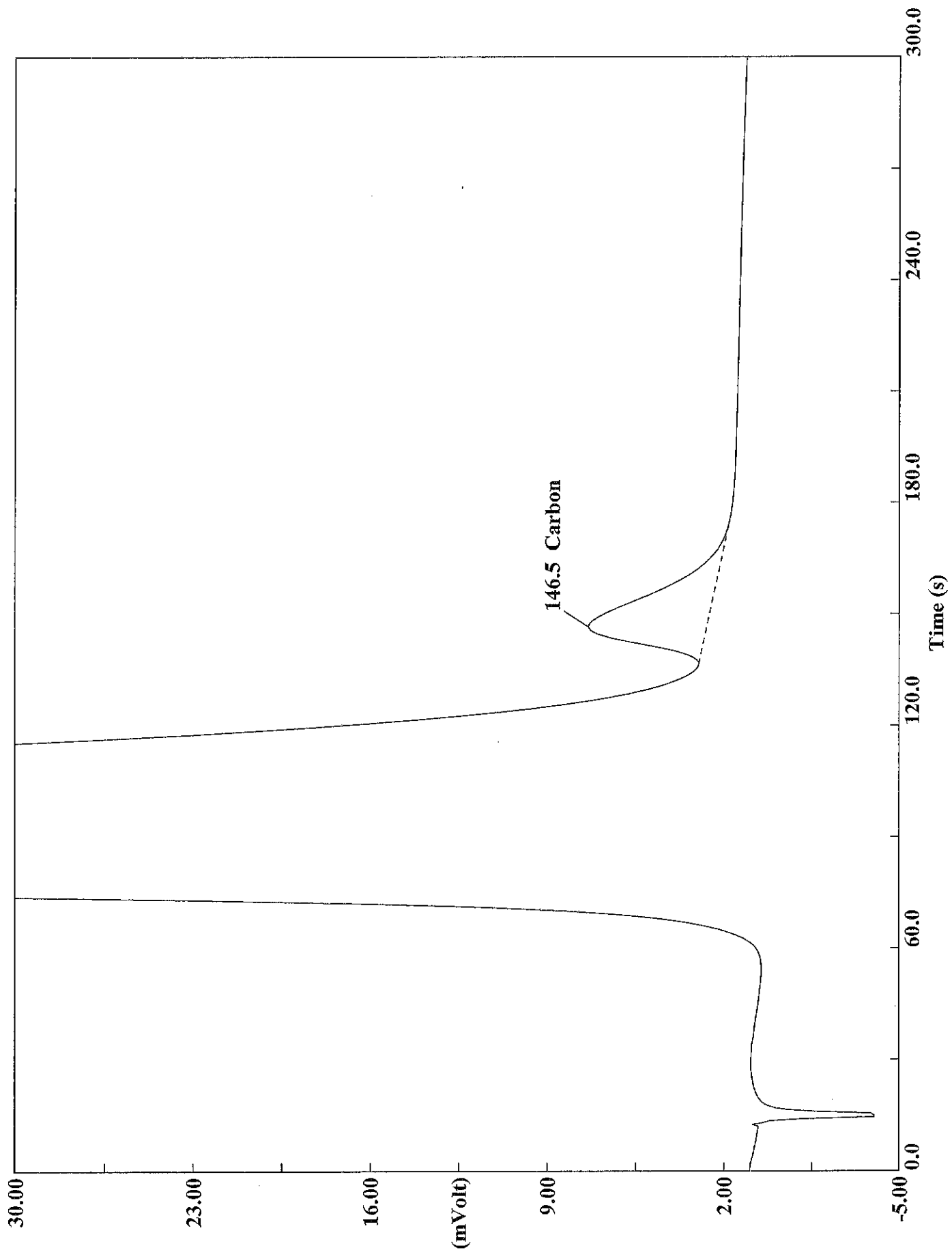
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314124  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:49 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-a-4 ms (# 86)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.65

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.3753	146	549330 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314125.DAT  
Sample name :180-37750-a-4 ms Analysed :10/23/2014 16:54

# Eager 300 Report

Page: 1 Sample: 180-37750-a-4 ms (A102314125)

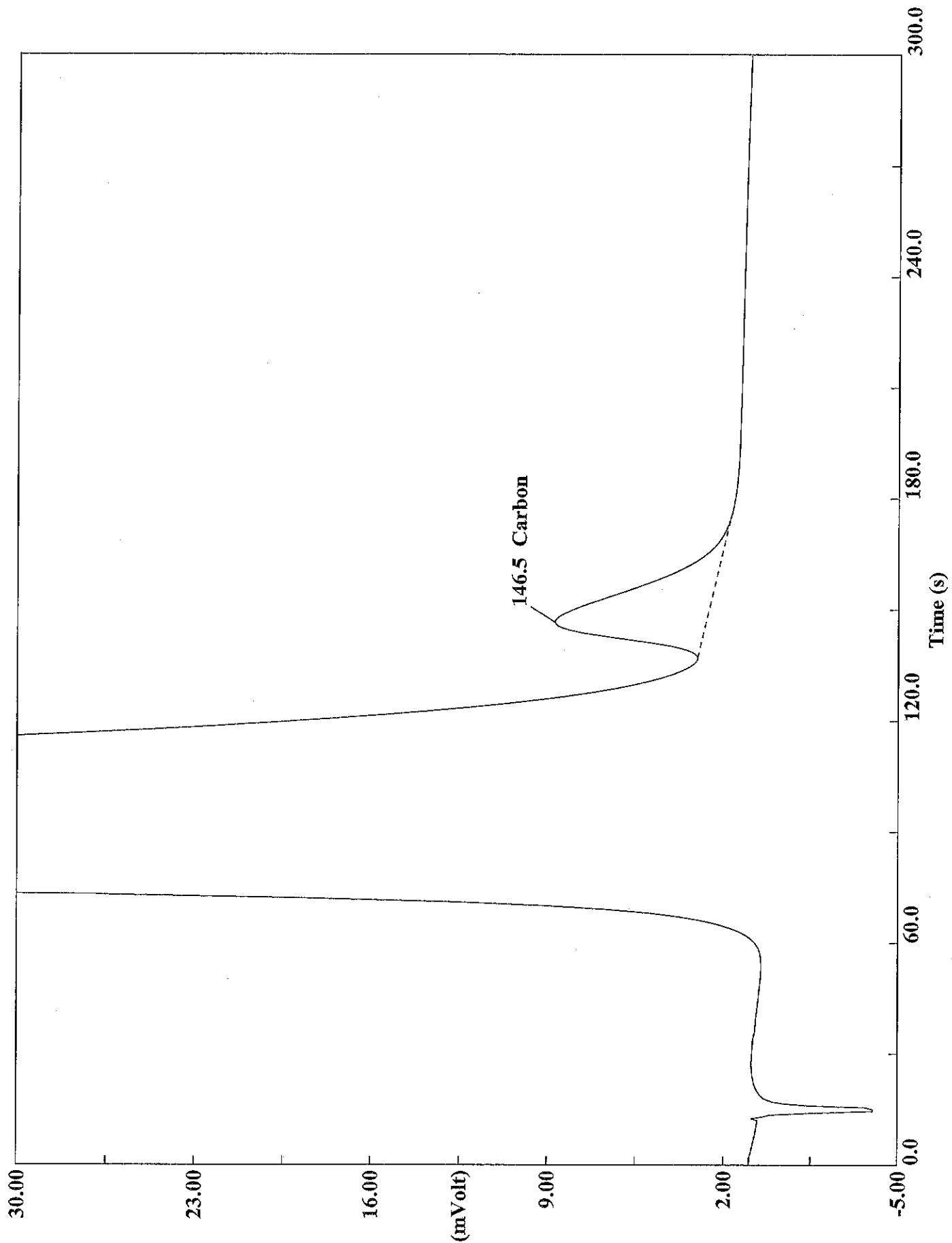
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314125  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 16:54 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-a-4 ms (# 87)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.65

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.7043	147	695790 mi		1.000000	

Manual Integration on 10/24/14 by Jim DeRubeis due to poor baseline draw



Filename C:\data\January\A102314127.DAT  
Sample name :180-37750-b-4 msd Analysed :10/23/2014 17:05

# Eager 300 Report

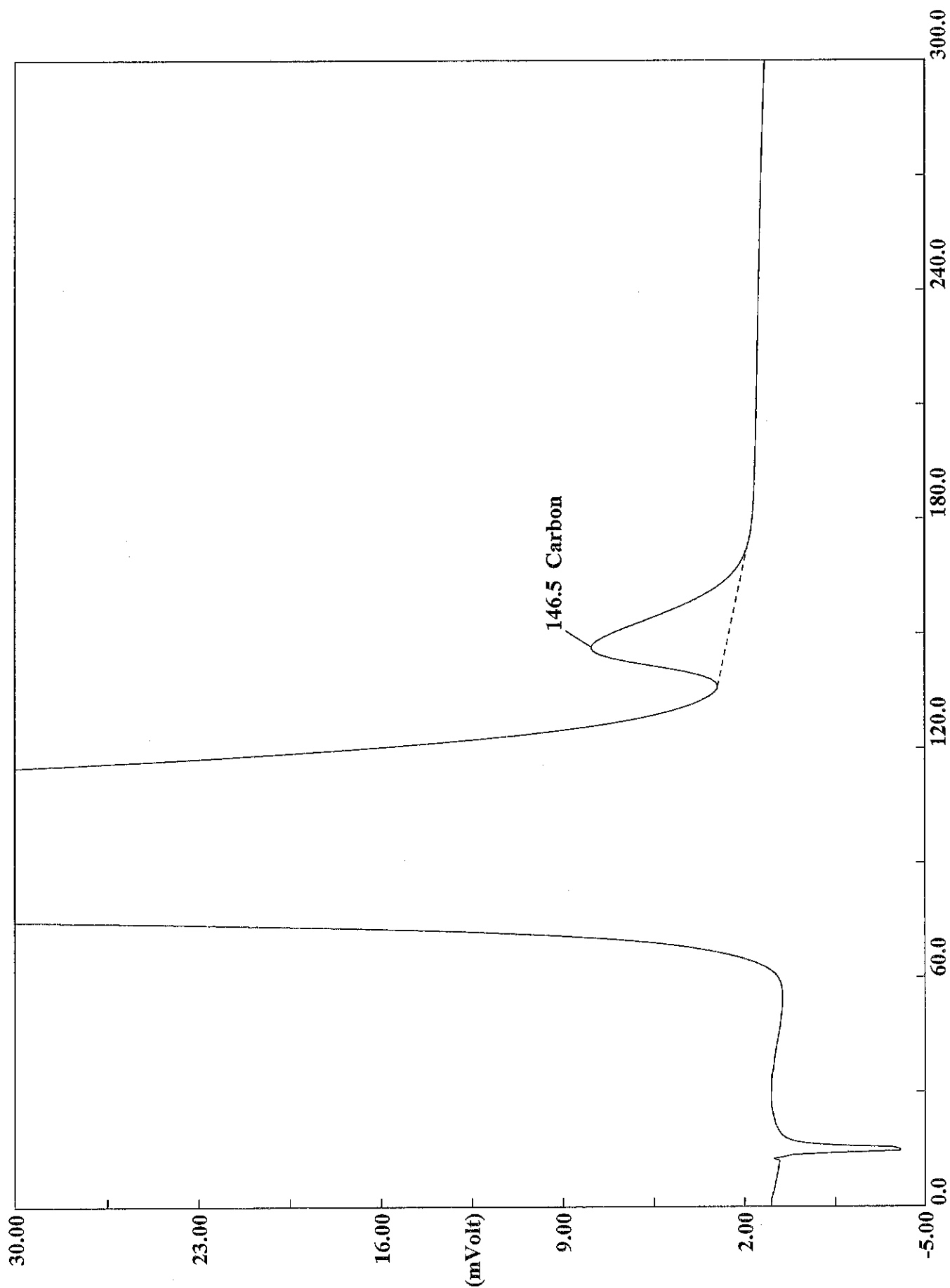
Page: 1 Sample: 180-37750-b-4 msd (A102314127)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314127  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:05 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-b-4 msd (# 89)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	2.1326	147	893306 mi		1.000000	



Filename C:\data\January\A102314128.DAT

Sample name :180-37750-b-4 msd Analysed :10/23/2014 17:10

# Eager 300 Report

Page: 1 Sample: 180-37750-b-4 msd (A102314128)

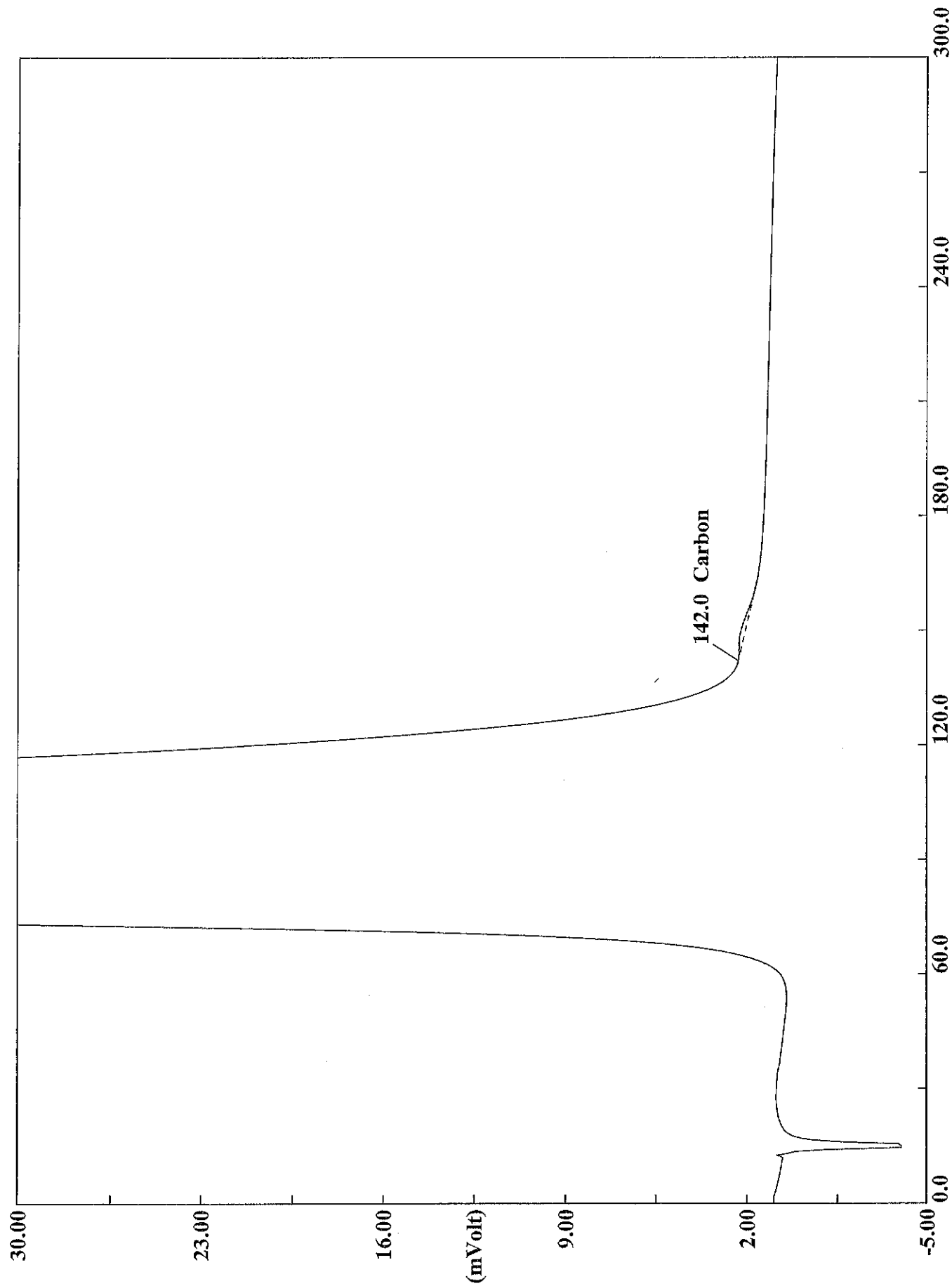
Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314128  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:10 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-b-4 msd (# 90)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.8

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	1.8628	147	772323	mi	1.000000	





Filename C:\data\January\A102314130.DAT

Sample name :180-37750-c-4 du Analysed :10/23/2014 17:21

# Eager 300 Report

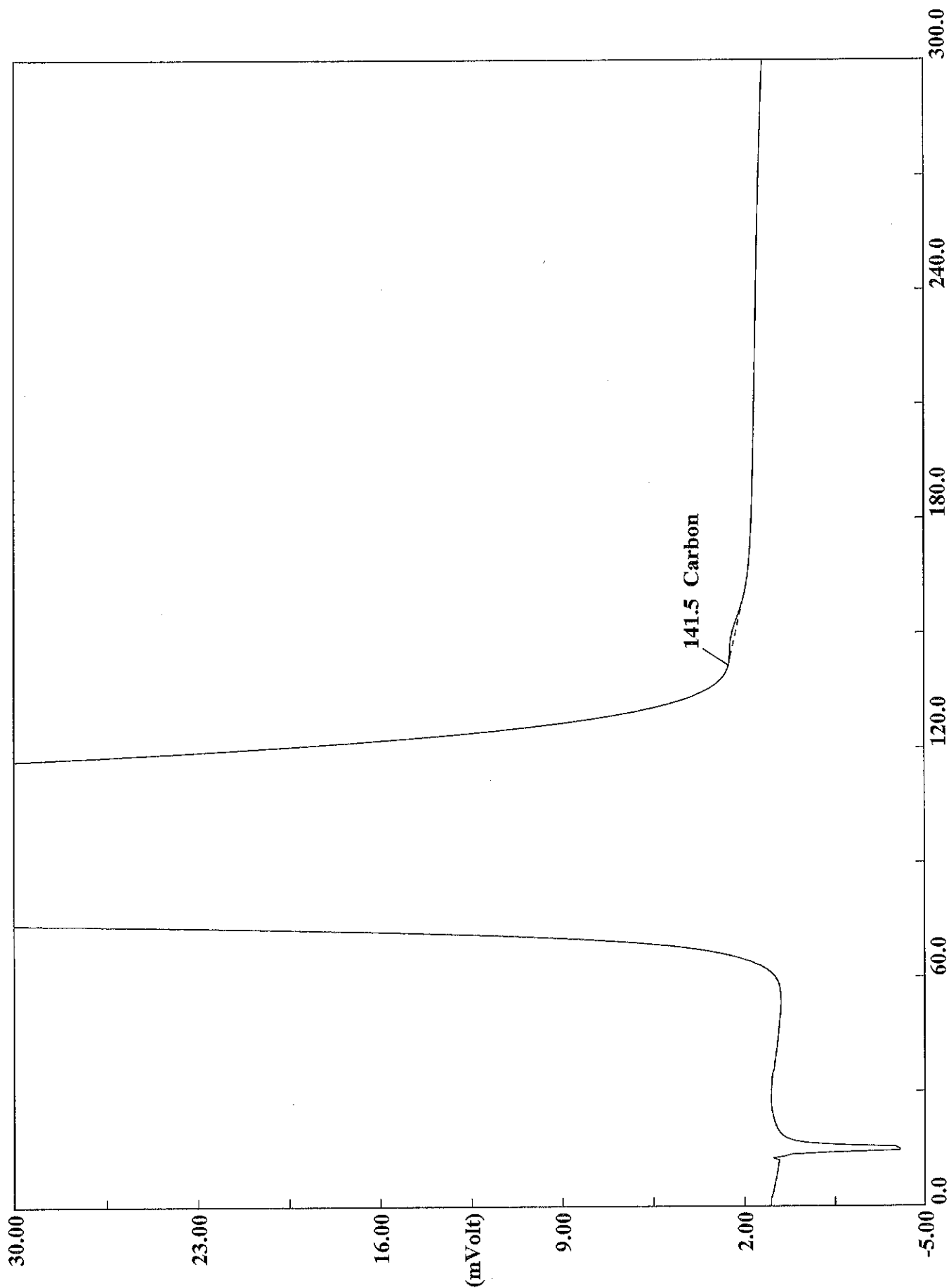
Page: 1 Sample: 180-37750-c-4 du (A102314130)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314130  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:21 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-c-4 du (# 92)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.25

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1756	142	13823	mi	1.000000	



Filename C:\data\January\A102314131.DAT  
Sample name :180-37750-c-4 du Analysed :10/23/2014 17:26

# Eager 300 Report

Page: 1 Sample: 180-37750-c-4 du (A102314131)

Method Name : Lloyd Kahn  
Method File : C:\data\January\102314ax.mth  
Chromatogram : A102314131  
Operator ID : James DeRubeis Company Name : TestAmerica Pitt  
Analysed : 10/23/2014 17:26 Printed : 10/24/2014 04:33  
Sample ID : 180-37750-c-4 du (# 93)  
Instrument N. : Instrument #1  
Analysis Type : UnkNown (Area) Sample weight : 20.25

Calib. method : using 'Least Squares to Linear fit'

Warning Chromatogram has been subjected to manual integration.

Element Name	%	Ret.Time	Area	BC	Area ratio	K factor
Carbon	0.1680	142	10489	mi	1.000000	

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122578 Batch Start Date: 10/24/14 07:30 Batch Analyst: Johnson, PaulBatch Method: 9010C Batch End Date: 10/24/14 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCN0.5Ll 00451	WCN10Pi 00454	WCNSoillLCS 00014	
LLCS 180-122578/1		9010C, 9014		50 mL	50 mL	5 mL			
HLCS 180-122578/2		9010C, 9014		50 mL	50 mL		1.25 mL		
LCS 180-122578/3		9010C, 9014		1.00 g	50 mL			1 g	
MB 180-122578/4		9010C, 9014		2.00 g	50 mL				
180-37750-B-2	SD-A02	9010C, 9014	T	2.01 g	50 mL				
180-37750-B-3	SD-A03	9010C, 9014	T	2.03 g	50 mL				
180-37750-D-5	SD-B02	9010C, 9014	T	2.04 g	50 mL				
180-37750-B-6	SD-B02-FD	9010C, 9014	T	1.95 g	50 mL				
180-37750-B-7	SD-C01	9010C, 9014	T	1.99 g	50 mL				

Batch Notes	
Balance ID	15900520
Distillation Temperature	150 Degrees C
Lead Acetate Lot #	1276537
Magnesium Chloride Dispenser ID	42145
Magnesium Chloride Lot Number	1274077
NaOH Dispenser ID	10J62292
Sodium Hydroxide Reagent ID Number	1323151
Pipette ID	J1207624U
Sulfamic Acid Reagent ID Number	955307
Sulfuric Acid Reagent ID Number	1283660
Telfon Chips Lot #	1346903

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122641 Batch Start Date: 10/24/14 10:03 Batch Analyst: Johnson, PaulBatch Method: 9014 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WCN0.1L3 00003	WCN0.2ICV 00288			
ICV 180-122641/8		9014		10 mL		10 mL			
CCV 180-122641/10		9014		10 mL	10 mL				
CCV 180-122641/22		9014		10 mL	10 mL				
CCV 180-122641/34		9014		10 mL	10 mL				
CCV 180-122641/43		9014		10 mL	10 mL				

Batch Notes	
Buffer Reagent ID Number	1250915
Chloramine-T Reagent ID Number	1368077
NaOH Lot #	1323151
Pipette ID	J1207624U, J1102764U
Pyridine-Barbituric Acid Reagent ID	1185318

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122877 Batch Start Date: 10/27/14 12:40 Batch Analyst: Johnson, PaulBatch Method: 9010C Batch End Date: 10/27/14 14:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCN0.5Ll 00452	WCN10Pi 00455	WCN10Si 00460	WCNSoillLCS 00014
LLCS 180-122877/1		9010C, 9014		50 mL	50 mL	5 mL			
HLCS 180-122877/2		9010C, 9014		50 mL	50 mL		1.25 mL		
LCS 180-122877/3		9010C, 9014		1.00 g	50 mL				1 g
MB 180-122877/4		9010C, 9014		2.00 g	50 mL				
180-37750-B-1	SD-A01	9010C, 9014	T	2.05 g	50 mL				
180-37750-D-4	SD-B01	9010C, 9014	T	2.00 g	50 mL				
180-37750-B-4 MS	SD-B01	9010C, 9014	T	1.98 g	50 mL			1 mL	
180-37750-B-4 MSD	SD-B01	9010C, 9014	T	2.05 g	50 mL			1 mL	
180-37750-B-8	SD-C02	9010C, 9014	T	2.06 g	50 mL				
180-37750-B-9	SD-C03	9010C, 9014	T	2.05 g	50 mL				

Batch Notes	
Balance ID	15900520
Distillation Temperature	150 Degrees C
Lead Acetate Lot #	1276537
Magnesium Chloride Dispenser ID	42145
Magnesium Chloride Lot Number	1274077
NaOH Dispenser ID	10J62292
Sodium Hydroxide Reagent ID Number	1323151
Pipette ID	J1207624U
Sulfamic Acid Reagent ID Number	955307
Sulfuric Acid Dispenser ID	21014
Sulfuric Acid Reagent ID Number	1283660
Telfon Chips Lot #	1346903

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122911 Batch Start Date: 10/27/14 15:10 Batch Analyst: Johnson, PaulBatch Method: 9014 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WCN0.1L3 00004	WCN0.2ICV 00289			
ICV 180-122911/1		9014		10 mL		10 mL			
CCV 180-122911/3		9014		10 mL	10 mL				
CCV 180-122911/15		9014		10 mL	10 mL				
CCV 180-122911/27		9014		10 mL	10 mL				

Batch Notes	
Buffer Reagent ID Number	1250915
Chloramine-T Reagent ID Number	1368077
NaOH Lot #	1323151
Pipette ID	J1207624U
Pyridine-Barbituric Acid Reagent ID	1304925

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 121749 Batch Start Date: 10/16/14 17:01 Batch Analyst: Baikadi, AshwinBatch Method: 2540G Batch End Date: 10/17/14 12:03

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
180-37750-C-4	SD-B01	2540G	T	C0095002 0.1125	2.64 g	9.08 g	7.19 g		
180-37750-C-4 DU	SD-B01	2540G	T	C0094998 0.1122	2.57 g	9.12 g	7.22 g		
180-37750-A-1	SD-A01	2540G	T	A0158817 0.1108	2.60 g	8.12 g	6.38 g		
180-37750-A-2	SD-A02	2540G	T	A0158814 0.1131	2.61 g	8.82 g	4.74 g		
180-37750-A-3	SD-A03	2540G	T	C0095058 0.1131	2.62 g	8.05 g	3.85 g		
180-37750-C-5	SD-B02	2540G	T	C0095061 0.1110	2.58 g	8.16 g	3.92 g		
180-37750-A-6	SD-B02-FD	2540G	T	C0095062 0.1128	2.58 g	8.33 g	4.14 g		
180-37750-A-7	SD-C01	2540G	T	C0095064 0.1126	2.63 g	8.69 g	6.74 g		
180-37750-A-8	SD-C02	2540G	T	C0095065 0.1129	2.61 g	9.62 g	6.67 g		
180-37750-A-8 DU	SD-C02	2540G	T	A0158816 0.1129	2.58 g	9.62 g	7.01 g		
180-37750-A-9	SD-C03	2540G	T	C0095059 0.1125	2.59 g	8.67 g	4.01 g		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 121749 Batch Start Date: 10/16/14 17:01 Batch Analyst: Baikadi, AshwinBatch Method: 2540G Batch End Date: 10/17/14 12:03

Batch Notes	
Balance ID	1126472457 No Unit
Date and Time Samples in Desiccator	10/17/14 @ 09:15
Date and Time Samples out of Desiccator	10/17/14 @11:50
Date samples were placed in the oven	10/16/14
Oven Temp when samples are put in oven	103.5 Degrees C
Time samples were place in the oven	17:23
Date samples were removed from oven	10/17/14
Oven Temp when samples removed from oven	103.5 Degrees C
Time Samples were removed from oven	09:10
Oven ID	5005
ID number of the thermometer	WET-34
Uncorrected In Temperature	104 Celsius
Uncorrected Out Temperature	104 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 121963 Batch Start Date: 10/19/14 14:32 Batch Analyst: Bucklaw, Michael EBatch Method: AVSSEM Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WSULFPSP 00173			
MB 180-121963/1		AVSSEM, 9034		10.00 g	50 mL				
LCS 180-121963/2		AVSSEM, 9034		10.00 g	50 mL	1 mL			
180-37750-D-4	SD-B01	AVSSEM, 9034	V	10.01 g	50 mL				
180-37750-B-4 MS	SD-B01	AVSSEM, 9034	V	9.94 g	50 mL	1 mL			
180-37750-B-4 MSD	SD-B01	AVSSEM, 9034	V	9.96 g	50 mL	1 mL			
180-37750-B-1	SD-A01	AVSSEM, 9034	V	10.04 g	50 mL				
180-37750-B-2	SD-A02	AVSSEM, 9034	V	9.95 g	50 mL				
180-37750-B-3	SD-A03	AVSSEM, 9034	V	10.01 g	50 mL				
180-37750-D-5	SD-B02	AVSSEM, 9034	V	10.00 g	50 mL				
180-37750-B-6	SD-B02-FD	AVSSEM, 9034	V	10.00 g	50 mL				
180-37750-B-7	SD-C01	AVSSEM, 9034	V	9.98 g	50 mL				
180-37750-B-8	SD-C02	AVSSEM, 9034	V	10.02 g	50 mL				
180-37750-B-9	SD-C03	AVSSEM, 9034	V	10.05 g	50 mL				

Batch Notes	

Basis	Basis Description
V	SEM/AVS

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122072 Batch Start Date: 10/20/14 14:11 Batch Analyst: Bucklaw, Michael EBatch Method: 9034 Batch End Date: 10/20/14 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	IodineAmount	BuretStart1	BuretStop1	TitrantVolume1	CalcMsg
ICV 180-122072/1		9034		50 mL	10 mL	0 mL	7.35 mL	7.35 mL	OK
ICB 180-122072/2		9034		50 mL	10 mL	0 mL	10.59 mL	10.59 mL	OK
MB 180-121963/1-A		9034		50 mL	10 mL	0 mL	10.54 mL	10.54 mL	OK
LCS 180-121963/2-A		9034		50 mL	10 mL	0 mL	7.29 mL	7.29 mL	OK
180-37750-D-4-B	SD-B01	9034	V	50 mL	10 mL	0 mL	10.31 mL	10.31 mL	OK
180-37750-B-4-C MS	SD-B01	9034	V	50 mL	10 mL	0 mL	7.40 mL	7.4 mL	OK
180-37750-B-4-D MSD	SD-B01	9034	V	50 mL	10 mL	0 mL	7.44 mL	7.44 mL	OK
180-37750-B-1-B	SD-A01	9034	V	50 mL	10 mL	0 mL	9.99 mL	9.99 mL	OK
180-37750-B-2-B	SD-A02	9034	V	50 mL	10 mL	0 mL	2.65 mL	2.65 mL	OK
180-37750-B-3-B	SD-A03	9034	V	50 mL	10 mL	0 mL	1.45 mL	1.45 mL	OK
180-37750-D-5-B	SD-B02	9034	V	50 mL	10 mL	0 mL	1.33 mL	1.33 mL	OK
180-37750-B-6-B	SD-B02-FD	9034	V	50 mL	10 mL	0 mL	2.00 mL	2 mL	OK
CCV 180-122072/13		9034		50 mL	10 mL	0 mL	7.29 mL	7.29 mL	OK
CCB 180-122072/14		9034		50 mL	10 mL	0 mL	10.57 mL	10.57 mL	OK
180-37750-B-7-B	SD-C01	9034	V	50 mL	10 mL	0 mL	10.15 mL	10.15 mL	OK
180-37750-B-8-B	SD-C02	9034	V	50 mL	10 mL	0 mL	4.22 mL	4.22 mL	OK
180-37750-B-9-B	SD-C03	9034	V	50 mL	10 mL	0 mL	5.09 mL	5.09 mL	OK
CCV 180-122072/21		9034		50 mL	10 mL	0 mL	7.31 mL	7.31 mL	OK
CCB 180-122072/22		9034		50 mL	10 mL	0 mL	10.60 mL	10.6 mL	OK

Lab Sample ID	Client Sample ID	Method Chain	Basis	WSULFSICVCCV 00170					
ICV 180-122072/1		9034		1 mL					
ICB 180-122072/2		9034							
MB 180-121963/1-A		9034							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122072 Batch Start Date: 10/20/14 14:11 Batch Analyst: Bucklaw, Michael EBatch Method: 9034 Batch End Date: 10/20/14 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	WSULFSICVCCV 00170					
LCS 180-121963/2-A		9034							
180-37750-D-4-B	SD-B01	9034	V						
180-37750-B-4-C MS	SD-B01	9034	V						
180-37750-B-4-D MSD	SD-B01	9034	V						
180-37750-B-1-B	SD-A01	9034	V						
180-37750-B-2-B	SD-A02	9034	V						
180-37750-B-3-B	SD-A03	9034	V						
180-37750-D-5-B	SD-B02	9034	V						
180-37750-B-6-B	SD-B02-FD	9034	V						
CCV 180-122072/13		9034		1 mL					
CCB 180-122072/14		9034							
180-37750-B-7-B	SD-C01	9034	V						
180-37750-B-8-B	SD-C02	9034	V						
180-37750-B-9-B	SD-C03	9034	V						
CCV 180-122072/21		9034		1 mL					
CCB 180-122072/22		9034							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122072 Batch Start Date: 10/20/14 14:11 Batch Analyst: Bucklaw, Michael EBatch Method: 9034 Batch End Date: 10/20/14 16:00

Batch Notes	
HCl Concentration	6N
Lot # of hydrochloric acid	1317801
Iodine Lot Number	1296709
Iodine Vendor	Labchem
Normality of Iodine Solution	.0216 N
Sodium Thiosulfate Reagent ID Number	1194353
Pipette ID	D1203183U
Perform Calculation (0=No, 1=Yes)	1
Starch Lot Number	C361-06
Starch Vendor	Labchem
Normality of first Titrant	.0215 N
Zinc Acetate Buffer Reagent ID Number	WZnAc.50M_000010

Basis	Basis Description
V	SEM/AVS

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122780 Batch Start Date: 10/27/14 06:23 Batch Analyst: Merriman, JeremyBatch Method: 9071B Batch End Date: 10/27/14 10:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WHemPSP 00169			
MB 180-122780/1		9071B, 9071B		30.0 g	30.0 g				
LCS 180-122780/2		9071B, 9071B		30.0 g	30.0 g	10 mL			
180-37750-A-4 MS	SD-B01	9071B, 9071B	T	30.2 g	30.0 g	10 mL			
180-37750-A-4 MSD	SD-B01	9071B, 9071B	T	30.3 g	30.0 g	10 mL			
180-37750-C-4	SD-B01	9071B, 9071B	T	30.1 g	30.0 g				
180-37750-C-5	SD-B02	9071B, 9071B	T	30.2 g	30.0 g				
180-37750-A-6	SD-B02-FD	9071B, 9071B	T	30.0 g	30.0 g				
180-37750-A-7	SD-C01	9071B, 9071B	T	30.3 g	30.0 g				
180-37750-A-8	SD-C02	9071B, 9071B	T	30.4 g	30.0 g				
180-37750-A-9	SD-C03	9071B, 9071B	T	30.1 g	30.0 g				

Batch Notes	
Balance ID	1120122641
Hexane Lot#	1345111
Na2SO4 Lot Number	1375764

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122993 Batch Start Date: 10/28/14 10:18 Batch Analyst: Klingman, Neil ABatch Method: 9071B Batch End Date: 10/28/14 17:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	ReceiverTube	HEMWgt1	HEMWgt2	Weight2OK	Residue
MB 180-122780/1-A		9071B		30.0 g	2.5156 g	2.5166 g	2.5164 g	Pass 0.0005g	0.001 g
LCS 180-122780/2-A		9071B		30.0 g	2.4818 g	2.5173 g	2.5173 g	Pass 0.0005g	0.0355 g
180-37750-A-4-E MS	SD-B01	9071B	T	30.0 g	2.4909 g	2.5235 g	2.5235 g	Pass 0.0005g	0.0326 g
180-37750-A-4-F MSD	SD-B01	9071B	T	30.0 g	2.5024 g	2.5361 g	2.5361 g	Pass 0.0005g	0.0337 g
180-37750-C-4-F	SD-B01	9071B	T	30.0 g	2.4740 g	2.4795 g	2.4795 g	Pass 0.0005g	0.0055 g
180-37750-C-5-C	SD-B02	9071B	T	30.0 g	2.2474 g	2.3374 g	2.3373 g	Pass 0.0005g	0.09 g
180-37750-A-6-C	SD-B02-FD	9071B	T	30.0 g	2.2951 g	2.3941 g	2.3940 g	Pass 0.0005g	0.099 g
180-37750-A-7-C	SD-C01	9071B	T	30.0 g	2.3160 g	2.3223 g	2.3223 g	Pass 0.0005g	0.0063 g
180-37750-A-8-C	SD-C02	9071B	T	30.0 g	2.2727 g	2.3006 g	2.3006 g	Pass 0.0005g	0.0279 g
180-37750-A-9-C	SD-C03	9071B	T	30.0 g	2.3260 g	2.4515 g	2.4511 g	Pass 0.0005g	0.1255 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue2	CalcMsg				
MB 180-122780/1-A		9071B		0.0008 g	HEM OK. SGT-HEM not calculated.				
LCS 180-122780/2-A		9071B		0.0355 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-4-E MS	SD-B01	9071B	T	0.0326 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-4-F MSD	SD-B01	9071B	T	0.0337 g	HEM OK. SGT-HEM not calculated.				
180-37750-C-4-F	SD-B01	9071B	T	0.0055 g	HEM OK. SGT-HEM not calculated.				
180-37750-C-5-C	SD-B02	9071B	T	0.0899 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-6-C	SD-B02-FD	9071B	T	0.0989 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-7-C	SD-C01	9071B	T	0.0063 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-8-C	SD-C02	9071B	T	0.0279 g	HEM OK. SGT-HEM not calculated.				
180-37750-A-9-C	SD-C03	9071B	T	0.1251 g	HEM OK. SGT-HEM not calculated.				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

9071B

Page 1 of 2



## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122993 Batch Start Date: 10/28/14 10:18 Batch Analyst: Klingman, Neil ABatch Method: 9071B Batch End Date: 10/28/14 17:15

Batch Notes	
Balance ID	1126020829
Cal check after 1st Weighing - 1g	1.0001 g
Cal check after 1st Weighing - 2 mg	0.0200 g
Cal check after 2nd Weighing - 1g	1.0001 g
Cal check after 2nd Weighing - 2 mg	0.0200 g
Calibration Check After 1st Weighing	5.0002
Calibration Check After 2nd Weighing	5.0002
Calibration Check Before 1st Weighing	5.0002
Calibration Check Before 2nd Weighing	5.0002
Cal check before 1st Weighing - 1g	1.0001 g
Cal check before 1st Weighing - 2 mg	0.0200 g
Cal check before 2nd Weighing - 1g	1.0001 g
Cal check before 2nd Weighing - 2 mg	0.0200 g
Evaporator Temperature	48
Filter Paper Lot Number	9587897

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 122589 Batch Start Date: 10/23/14 10:21 Batch Analyst: DeRubeis, James DBatch Method: Lloyd Kahn Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LKTOCKHPL1 00011	LKTOCSRM 00014		
CCV 180-122589/1		Lloyd Kahn				0.1 mL			
LCS 180-122589/4		Lloyd Kahn		11.15 mg	11.15 mg		11.15 mg		
CCV 180-122589/15		Lloyd Kahn				0.1 mL			
CCV 180-122589/29		Lloyd Kahn				0.1 mL			
CCV 180-122589/43		Lloyd Kahn				0.1 mL			
180-37750-C-4	SD-B01	Lloyd Kahn	T	20.85 mg	20.85 mg				
180-37750-A-4 MS	SD-B01	Lloyd Kahn	T	20.65 mg	20.65 mg		10.2 mg		
180-37750-B-4 MSD	SD-B01	Lloyd Kahn	T	20.8 mg	20.8 mg		10.6 mg		
180-37750-C-4 DU	SD-B01	Lloyd Kahn	T	20.25 mg	20.25 mg				
CCV 180-122589/57		Lloyd Kahn				0.1 mL			

Batch Notes	
Lot # of Phosphoric Acid	
	1089067

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Lloyd Kahn

Page 1 of 1

COVER PAGE  
GEOTECHNICAL

Lab Name: TestAmerica Burlington Job Number: 180-37750-1

SDG No.: \_\_\_\_\_

Project: Sparrows Point Trust Offshore Investigat

Client Sample ID

SD-B01

SD-B02

Lab Sample ID

180-37750-4

180-37750-5

Comments:

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GEOTECHNICAL

Client Sample ID: SD-B01

Lab Sample ID: 180-37750-4

Lab Name: TestAmerica Burlington

Job No.: 180-37750-1

SDG ID.:

Matrix: Sediment

Date Sampled: 10/13/2014 12:50

Reporting Basis: WET

Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Moisture Content	36.6			%			1	D2216-90
	Gravel	0.0			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	92.5			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	0.2			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	3.0			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	89.3			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	100.0			% Passing			1	D422
	Silt	5.4			%			1	D422
	Clay	2.1			%			1	D422
	Sieve Size #4 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #10 - Percent Finer	99.8			% Passing			1	D422
	Sieve Size #20 - Percent Finer	99.6			% Passing			1	D422
	Sieve Size #40 - Percent Finer	96.8			% Passing			1	D422
	Sieve Size #60 - Percent Finer	75.6			% Passing			1	D422
	Sieve Size #80 - Percent Finer	52.5			% Passing			1	D422
	Sieve Size #100 - Percent Finer	33.9			% Passing			1	D422
	Sieve Size #200 - Percent Finer	7.5			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	3.8			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	3.0			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	3.0			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	2.1			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	2.1			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	1.2			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	0.4			% Passing			1	D422

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GEOTECHNICAL

Client Sample ID: SD-B02

Lab Sample ID: 180-37750-5

Lab Name: TestAmerica Burlington

Job No.: 180-37750-1

SDG ID.:

Matrix: Sediment

Date Sampled: 10/13/2014 12:10

Reporting Basis: WET

Date Received: 10/15/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Moisture Content	228.7			%			1	D2216-90
	Gravel	0.0			%			1	D422
	Sieve Size 3 inch - Percent Finer	100.0			% Passing			1	D422
	Sand	22.6			%			1	D422
	Sieve Size 2 inch - Percent Finer	100.0			% Passing			1	D422
	Coarse Sand	1.1			%			1	D422
	Sieve Size 1.5 inch - Percent Finer	100.0			% Passing			1	D422
	Medium Sand	2.9			%			1	D422
	Sieve Size 1 inch - Percent Finer	100.0			% Passing			1	D422
	Fine Sand	18.6			%			1	D422
	Sieve Size 0.75 inch - Percent Finer	100.0			% Passing			1	D422
	Sieve Size 0.375 inch - Percent Finer	100.0			% Passing			1	D422
	Silt	73.9			%			1	D422
	Clay	3.5			%			1	D422
	Sieve Size #4 - Percent Finer	100.0			% Passing			1	D422
	Sieve Size #10 - Percent Finer	98.9			% Passing			1	D422
	Sieve Size #20 - Percent Finer	98.0			% Passing			1	D422
	Sieve Size #40 - Percent Finer	96.0			% Passing			1	D422
	Sieve Size #60 - Percent Finer	91.3			% Passing			1	D422
	Sieve Size #80 - Percent Finer	86.6			% Passing			1	D422
	Sieve Size #100 - Percent Finer	82.3			% Passing			1	D422
	Sieve Size #200 - Percent Finer	77.4			% Passing			1	D422
	Hydrometer Reading 1 - Percent Finer	75.9			% Passing			1	D422
	Hydrometer Reading 2 - Percent Finer	19.4			% Passing			1	D422
	Hydrometer Reading 3 - Percent Finer	7.1			% Passing			1	D422
	Hydrometer Reading 4 - Percent Finer	5.3			% Passing			1	D422
	Hydrometer Reading 5 - Percent Finer	3.5			% Passing			1	D422
	Hydrometer Reading 6 - Percent Finer	1.5			% Passing			1	D422
	Hydrometer Reading 7 - Percent Finer	1.5			% Passing			1	D422

# GEOTECHNICAL BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 79574 Batch Start Date: 10/29/14 19:30 Batch Analyst: Peterson, Mark A

Batch Method: D2216-90 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
180-37750-A-4	SD-B01	D2216-90	T	4.06 g	224.19 g	165.26 g			
180-37750-A-5	SD-B02	D2216-90	T	4.07 g	123.79 g	40.49 g			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

D2216-90

# GEOTECHNICAL BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 180-37750-1

SDG No.: \_\_\_\_\_

Batch Number: 79737 Batch Start Date: 10/29/14 22:32 Batch Analyst: Lavigne, Scott M

Batch Method: D422 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	AnalysisComment				
180-37750-A-4	SD-B01	D422	T	257.63 g	SEE-SAMPLE-DATA SHEETS				
180-37750-A-5	SD-B02	D422	T	149.5 g	SEE-SAMPLE-DATA SHEETS				

Batch Notes	

Basis	Basis Description
T	Total/NA

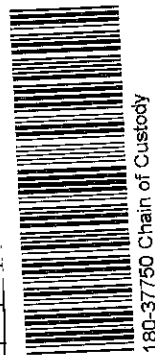
The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Subcontract Data



# Shipping and Receiving Documents

<b>Client:</b> EA Engineering Science, and Technology, Inc. 225 Schilling Circle, Suite 400 Hunt Valley, MD 21031 Phone: 410-329-5137 Field Contact: John Morris Phone: (401) 139-1031 Project Name: Sparrows Point Project#: 15131.01				<b>Project Manager:</b> Frank Barranco Phone: 410-329-5137 Field Contact: John Morris Phone: (401) 139-1031 TestAmerica Quote #:				<b>Parameters/Method Numbers for Analysis</b> PPL VOCs (SW846 5035A/8620B) X PPL SVOCs/PAHs (SW846 8270D LL) X PCB Aroclors (SW846 8082A LL) X PPL Metals (SW846 6020A) X Mercury (SW846 7471B) X Cyanide (SW846 9014) X Oil and Grease (EPA Method 9071B) X SEM/AVS (SW846 6010B/9034) X Total Solids (SM 2540G) X Total Organic Carbon (Lloyd Kahn) X Grain Size (ASTM D422) X Moisture Content (D2216-90) X										<b>Chain of Custody Record</b> Laboratory: TestAmerica - Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 phone: 412.963.2428 fax: 412.963.2468 ATTN: Carrie Gamber	
Date 10/13/2014 1145 10/13/2014 1115 10/13/2014 1020 10/13/2014 1250 10/13/2014 1250 10/13/2014 1250 10/13/2014 1210 10/13/2014 1210 10/13/2014 1530 10/13/2014 1450 10/13/2014 1430		of 1		Sediment Samples Sample Identification SD-A01 SD-A02 SD-A03 SD-B01 SD-B01-MS SD-B01-MSD SD-B02 SD-B02-FD SD-C01 SD-C02 SD-C03		No. of Containers 2 2 2 6 4 4 6 4 4 4 4		Remarks PAHs and bis(2-ethylhexyl)phthalate only PAHs and bis(2-ethylhexyl)phthalate only PAHs and bis(2-ethylhexyl)phthalate only SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs) SVOCs (with PAHs)											
Sampled by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>				Date/Time 10/13/14 1800		Relinquished by: <i>[Signature]</i> Received by Laboratory: <i>[Signature]</i>		Date/Time 10/14/14 1700 10/18/14 930		SEDIMENT SPARROWS POINT									



## UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible.** Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
3. **GETTING YOUR SHIPMENT TO UPS**  
**UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers retail outlets and UPS drivers.**  
 Schedule a same day or future day Pickup to have a UPS driver pickup all your Cam packages.  
 Hand the package to any UPS driver in your area.  
 Take your package to any location of The UPS Store®, UPS Drop Box, UPS Custom Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find nearest you, please visit the Resources area of CampusShip and select UPS Location.

**Customers with a Daily Pickup**

Your driver will pickup your shipment(s) as usual.



180-37750 Waybill

FOLD HERE

<b>35 LBS</b> DWT: 24,18,18 MORGAN GELINAS 4105847000 EA ENG SCIENCE TECH 225 SCHILLING CIRCLE HUNT VALLEY MD 21031		<b>2 OF 2</b>	
<b>SHIP TO:</b> CARRIE GAMBER 412-963-7058 TEST AMERICA-PITTSBURGH RIDG PARK 301 ALPHA DR. PITTSBURGH PA 15238-2907		<b>PA 152 9-22</b> 	
		<b>UPS NEXT DAY AIR</b> TRACKING #: 1Z 288 682 01 9684 3053 4.6°C Uncorrected temp Thermometer ID CF Initials PT-WI-SR-001 effective 7/26/13 BILLING: P/P	
Department Code: 2123 Project Phase AND Task: 1513101.0004 CS 15.7.04		 WNTIE90 54-04 07/2014	




UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible.** Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
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**UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.**  
Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.  
Hand the package to any UPS driver in your area.  
Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

**Customers with a Daily Pickup**

Your driver will pickup your shipment(s) as usual.

FOLD HERE

MARTHA DIVER 4105847000 EA ENG SCIENCE TECH 225 SCHILLING CIRCLE HUNT VALLEY MD 21031	50 LBS	3 OF 3
<b>SHIP TO:</b> CARRIE GAMBER TESTAMERICA - PITTSBURGH 301 ALPHA DRIVE PITTSBURGH PA 15238-2907		
<b>PA 152 9-22</b> 		
<b>UPS NEXT DAY AIR</b> TRACKING #: 1Z 288 682 01 9380 4681 <b>1</b>		
 Uncorrected temp <u>3.1</u> °C Thermometer ID <u>7</u> CF <u>0</u> Initials <u>MB</u> PT-VI-SR-001 effective 7/26/13		
BILLING: P/P		
Department Code: 2123 Project Phase AND Task: 15191020002 CS 16.704  WNTINVS0 5-4-04 07/2014		

## UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed sheet containing the label at the line so that the entire shipping label is visible.** Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

### 3. GETTING YOUR SHIPMENT TO UPS

**UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.**

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.

Hand the package to any UPS driver in your area.

Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

#### Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

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MARTHA DIVVER 4105847000 EA ENG SCIENCE TECH 225 SCHILLING CIRCLE HUNT VALLEY MD 21031	50 LBS	2 OF 3
<b>SHIP TO:</b> CARRIE GAMBER TESTAMERICA - PITTSBURGH 301 ALPHA DRIVE PITTSBURGH PA 15238-2907		
<b>PA 152 9-22</b> 		
<b>UPS NEXT DAY AIR 1</b> TRACKING #: 1Z 288 682 01 9492 1472		
Uncorrected temp Thermometer ID CF <u>0</u> Initials <u>RS</u> PT-WI-SR-001 effective 7/26/13		
		
BILLING: P/P		
Department Code: 2123 Project Phase AND Task: 15191020002 CS 16.7104		
 WINTNVS0 54.0A.07/2014		

1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. Fold the printed sheet containing the label at the line so that the entire shipping label is visible. Place the label on a single side of the package and cover it completely with clear plastic shipping tape. Do not cover any seams or closures on the package with the label. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS  
UPS locations include the UPS Store®, UPS drop boxes, UPS customer centers, authorized retail outlets and UPS drivers.

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Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

**Customers with a Daily Pickup**  
Your driver will pickup your shipment(s) as usual.

FOLD HERE

MARTHA DRIVER 4105847000 EA ENG SCIENCE TECH 225 SCHILLING CIRCLE HUNT VALLEY MD 21031		50 LBS 1 OF 3
<b>SHIP TO:</b> CARRIE GAMBER TESTAMERICA - PITTSBURGH 301 ALPHA DRIVE PITTSBURGH PA 15238-2907		
		PA 152 9-22 
<b>UPS NEXT DAY AIR 1</b> TRACKING #: 1Z 288 682 01 9203 8869		
Uncorrected temp <u>1.4</u> °C Thermometer ID <u>7</u> CF <u>6</u> Initials <u>CB</u> PT-WI-SR-001 effective 7/28/13		
BILLING: P/P Department Code: 2123 Project Phase AND Task: 15191020002 CS 16/7/04 WININVS0 54-0A 07/2014 		

## UPS CampusShip: View/Print Label

1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
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Hand the package to any UPS driver in your area.  
Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

## Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

FOLD HERE

MORGAN GELINAS 4105847000 EA ENG SCIENCE TECH 225 SCHILLING CIRCLE HUNT VALLEY MD 21031		35 LBS DWT: 24,18,18	1 OF 2
SHIP TO: CARRIE GAMBER 412-963-7058 TEST AMERICA-PITTSBURGH RIDG PARK 301 ALPHA DR. PITTSBURGH PA 15238-2907		PA 152 9-22 	
		UPS NEXT DAY AIR TRACKING #: 1Z 288 682 01 9802 7244 1	
Uncorrected temp Thermometer ID CF 0 Initials RB PT-WI-SR-001 effective 7/26/13			
BILLING: P/P			
Department Code: 2123 Project Phase AND Task: 1513101 0004 CS 16.7.04 WNTIE90 54.0A 07/2014			

## Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

Login Number: 37750

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Neri, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ ( $1/4"$ ).	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 180-37750-1

**Login Number: 37750**  
**List Number: 2**  
**Creator: Atherton, Joel E**

**List Source: TestAmerica Burlington**  
**List Creation: 10/18/14 01:40 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	TAMPER EVIDENT TAPE
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	5.8°C, 3.8°C, 5.0°C, 3.6°C IR GUN 181 CF=0
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	



Client Information (Sub Contract Lab)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Client Contact			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Shipping/Receiving			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Company:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Address:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
City:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
State, Zip:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Phone:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Email:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Project Name:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Site:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Identification - Client ID (Lab ID)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B01 (180-37750-4)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B02 (180-37750-5)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Date			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Time			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Type (C=Comp, G=grab)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, As=As)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Field Filtered Sample (Yes or No)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D22.16.90/Water (Moisture) Content			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D422/ % Passing Routine List			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D422/ Classification in %			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Total Number of Containers			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Special Instructions/Note:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B01 (180-37750-4)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B02 (180-37750-5)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Date			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Time			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Type (C=Comp, G=grab)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, As=As)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Field Filtered Sample (Yes or No)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D22.16.90/Water (Moisture) Content			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D422/ % Passing Routine List			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D422/ Classification in %			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Total Number of Containers			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Special Instructions/Note:			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B01 (180-37750-4)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
SD-B02 (180-37750-5)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Date			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Time			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Sample Type (C=Comp, G=grab)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, As=As)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
Field Filtered Sample (Yes or No)			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D22.16.90/Water (Moisture) Content			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1		Job #:		Preservation Codes:	
D422/ % Passing Routine List			Carrier Tracking No(s):		Lab PM:		Gamber, Carrie L		Page 1 of 1					

SHIP DATE: 1/200  
ACTWGT: 51.6 LB  
CAD: 741733/LAFI

BILL THIRD PART

REF: S180-20203

SHIP DATE: 17OCT14  
ACFNGT: 51.6 LB  
CAD: 741733/CAFE2805

BILL THIRD PARTY

(002) 620 -- 1990  
REF: S180 -- 20203

**EXPRESS**

SP. TURDAY 12:00  
PRINCE OVERNIGHT

# XO BATA

05.03  
VT-UE 0110

[illegible]

**TECHNICAL**  
Express

[illegible]

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them. The list includes names such as "Mr. J. H. Smith", "Mr. W. H. Jones", "Mr. R. H. Brown", "Mr. T. H. Green", "Mr. L. H. White", "Mr. C. H. Black", "Mr. F. H. Gray", "Mr. M. H. Blue", "Mr. D. H. Red", "Mr. S. H. Yellow", "Mr. K. H. Purple", "Mr. N. H. Pink", "Mr. G. H. Orange", "Mr. V. H. Silver", "Mr. B. H. Gold", "Mr. P. H. Bronze", "Mr. Q. H. Copper", "Mr. R. H. Iron", "Mr. T. H. Steel", "Mr. L. H. Aluminum", "Mr. C. H. Lead", "Mr. F. H. Zinc", "Mr. M. H. Nickel", "Mr. D. H. Cobalt", "Mr. S. H. Manganese", "Mr. K. H. Magnesium", "Mr. N. H. Calcium", "Mr. G. H. Potassium", "Mr. V. H. Sodium", "Mr. B. H. Lithium", "Mr. P. H. Beryllium", "Mr. Q. H. Boron", "Mr. R. H. Carbon", "Mr. T. H. Nitrogen", "Mr. L. H. Oxygen", "Mr. C. H. Fluorine", "Mr. F. H. Chlorine", "Mr. M. H. Bromine", "Mr. D. H. Iodine", "Mr. S. H. Astatine", "Mr. K. H. Francium", "Mr. N. H. Radium", "Mr. G. H. Actinium", "Mr. V. H. Thorium", "Mr. B. H. Protactinium", "Mr. P. H. Uranium", "Mr. Q. H. Neptunium", "Mr. R. H. Plutonium", "Mr. T. H. Americium", "Mr. L. H. Curium", "Mr. C. H. Berkelium", "Mr. F. H. Californium", "Mr. M. H. Einsteinium", "Mr. D. H. Fermium", "Mr. S. H. Mendelevium", "Mr. K. H. Nobelium", "Mr. N. H. Lawrencium", "Mr. G. H. Rutherfordium", "Mr. V. H. Dubnium", "Mr. B. H. Seaborgium", "Mr. P. H. Bohrium", "Mr. Q. H. Hassium", "Mr. R. H. Meitnerium", "Mr. T. H. Darmstadtium", "Mr. L. H. Roentgenium", "Mr. C. H. Copernicium", "Mr. F. H. Dubnium", "Mr. M. H. Seaborgium", "Mr. D. H. Bohrium", "Mr. S. H. Hassium", "Mr. K. H. Meitnerium", "Mr. N. H. Darmstadtium", "Mr. G. H. Roentgenium", "Mr. V. H. Copernicium", "Mr. B. H. Dubnium", "Mr. P. H. Seaborgium", "Mr. Q. H. Bohrium", "Mr. R. H. Hassium", "Mr. T. H. Meitnerium", "Mr. L. H. Darmstadtium", "Mr. C. H. 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2 of 4  
MPS# 5682 3723 5768  
[0263]  
Mstr# 5682 3723 5767 [0201]  
SATURDAY 12:00P  
PRIORITY OVERNIGHT  
XO BTVA  
05403  
WT-US BTV

1. The first of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

2. The second of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

3. The third of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

4. The fourth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

5. The fifth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

6. The sixth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

7. The seventh of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

8. The eighth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

9. The ninth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

10. The tenth of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

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SAMPLE RECEIVING  
TEST AMERICA LABORATORIES INC  
301 ALPHA DR

PITTSBURGH, PA 152381330  
UNITED STATES US

SHIP DATE: 17OCT14  
ACTWGT: 61.6 LB  
CAD: 741733/CAFE2805

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TO SHIPPING/RECEIVING  
TESTAMERICA LABORATORIES, INC.  
30 COMMUNITY DRIVE  
SUITE 11  
SOUTH BURLINGTON VT 05403  
(802) 660-1990  
REF: S180-20203

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Express



3 of 4  
MPS# 5082 3723 5779  
0263  
Mstr# 5682 3723 5757

SATURDAY 12:00P  
PRIORITY OVERNIGHT

05403  
VT-US BTV

XO BTVA

0201

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4 of 4  
MPS# 5682 3723 5780  
0263  
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