ENVIRONMENTAL ALLIANCE

October 4, 2005

• Engineering
• Remediation
• Consulting

Mr. Tom Walter
Maryland Department of the Environment
Oil Control Program
1800 Washington Blvd.
Baltimore, Maryland 21230

Re: Final Emergency Regulations
Installation of Three Monitoring Wells and Groundwater Sampling
Carroll Fuel # 38
Jacksonville Citgo
14226 Jarrettsville Pike
Phoenix, Maryland

Dear Mr. Walter:

Environmental Alliance, Inc. (Alliance), is pleased to present the results of the recent activities completed to assist in satisfying the MDE emergency regulations. As you are aware, on January 25, 2005 the Joint Committee on Administrative and Legislative Review unanimously approved emergency regulations concerning underground storage tank systems (USTs) within high risk groundwater use areas in Maryland.

Upon review of the materials provided to Alliance, the results of a query of the Maryland well data base and adjoining neighbor well canvass survey it was determined that Carroll Branded Fuels required the completion of the tasks listed below on the above referenced site. The tasks completed included the following:

- Installation of three (3) monitoring wells, appropriately located as per the emergency regulation,
- Collection of soil samples from these wells,
- Collection of groundwater samples from these wells,
- Collection of a water sample from potable well.

The details of each task are as follows:

1812 Newport Gap Pike Wilmington, DE 19808
302-995-7544 302-995-0941 Fax www.EnvAlliance.com

Monitoring Well Installation

Three (3) monitoring wells were installed in locations outside the UST system to determine groundwater flow and to detect a release from the UST system. A supervising geologist, provided by Alliance, positioned the monitoring wells to complete this objective. Well locations are presented on Figure 1 within Attachment I. Well permits were secured from the appropriate State of Maryland County. Earth Matters, Inc., a Maryland licensed driller, conducted the drilling and completed the monitoring well construction.

During drilling activities, soils were logged from drill cuttings or utilize split spoon sampling at the discretion of the supervising Alliance geologist to characterize site lithology. Logs include grain size, texture, color, odor, and hydrocarbon staining. Soil was screened using a photo-ionization detector (PID). One soil sample from each boring was collected and shipped to Lancaster Laboratories of Lancaster, PA under chain of custody protocols for analysis via EPA Method 8260B.

Upon soil boring completion a permanent two-inch (2") PVC well was constructed by the drilling contractor in each of the borings. Each well was installed in accordance with COMAR with the exception that a 2" PVC was utilized instead of 4" PVC. Well completion logs are presented in Attachment II. Soils generated from the monitoring well construction were collected in fifty-five gallon drums for disposal. The wells were developed with a combination of pumping with a submersible pump and surging with a surge block until a relatively clear discharge is obtained. Development water was pumped through an activated carbon filter prior to discharge at the ground surface.

Groundwater Sampling

The three monitoring wells were purged and sampled in accordance with Alliance's *Standard Operating Procedures,* industry standards, and regulatory requirements on August 5, 2005. The procedures utilized during sampling include a required minimum of three borehole volumes be purged before sampling (dependent upon field conditions). As required by COMAR, Quality Assurance samples (one trip blank and one field blank) accompanied the collected samples during this task. Purge water generated during groundwater sampling was passed through a filter and activated carbon unit prior to discharge to the ground surface. Groundwater samples were shipped to Lancaster Laboratories of Lancaster, PA under chain of custody protocols for analysis of MDE

gasoline groundwater COCs (Benzene, Toluene, Ethylbenzene, total Xylenes, and MtBE) via EPA Method 8260. A sample was also collected from potable well PW-1 and analyzed via EPA Method 524.2. Groundwater analytical results are presented in Table 2 and potable well results are presented in Table 3 within Attachment I and laboratory analytical reports are presented in Attachment III.

Additionally, Alliance personnel surveyed the top of casing and other sites features (buildings etc.). Elevation measurements will be referenced to an arbitrary datum established for the site to evaluate groundwater elevation and flow direction.

Results

Groundwater analytical results indicated that MW-1 was above MDE Emergency Regulations "Levels of Concern" for Benzene. A groundwater gradient map is presented in Figure 1 of Attachment I which indicates a gradient to the north-northeast.

If you have any questions or if further information is required please contact me. Thank you for your time.

Sincerely,
ENVIRONMENTAL ALLIANCE, INC.

Joseph A. Zay III
Vice President Field Operations

C: Mr. Joe Antonelli, Carroll Branded Fuels

J:\EAI_files\PCG\Carroll Fuel\1957\1957 MDE Compliance letter.doc

ATTACHMENT I

TABLE 1
SOIL ANALYTICAL DATA
CITGO - 1755 JARRETTSVILLE PIKE
JARRETTSVILLE, MARYLAND

Location ID	Sample Date	Start Depth (ft)	End Depth (ft)	Constituents of Concern (ug/kg)				
				BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES (TOTAL)	MTBE
MW-1	07/20/05	49	51	ND	ND	ND	ND	4 J
MW-2	07/21/05	44	46	ND	ND	ND	ND	3 J
MW-3	07/22/05	44	46	ND	ND	ND	ND	1 J

ND = Not Detected
All analysis performed by SW8260B

TABLE 2
GROUNDWATER ANALYTICAL DATA
JACKSONVILLE CITGO - 14226 JARRETTSVILLE PIKE (RT 146)
PHOENIX, MARYLAND

Location ID	Sample Date	Top of Casing (ft-msl)	Depth to Water (ft)	Water Elevation (ft)	Constituents of Concern (ug/l)				
					BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES (TOTAL)	MTBE
MDE GNCS, Type I and II Aquifers					5	1,000	700	10,000	20
MW-1	08/05/05	98.14	35.99	62.15	7	ND	ND	ND	ND
MW-2	08/05/05	95.58	44.60	50.98	0.5 J	ND	ND	ND	4 J
MW-3	08/05/05	100.62	40.65	59.97	1 J	ND	ND	2 J	ND
FB	08/05/05	--	--	--	ND	ND	ND	ND	ND
TB	08/05/05	--	--	--	ND	ND	ND	ND	ND

ND = Not Detected
NA = not applicable / not available
MDE = Maryland Department of the Environment
GNCS = Generic Numeric Cleanup Standards
Values exceeding the specified MDE criteria are **bolded.**
Analyses performed by SW8260B; only detected constituents are reported

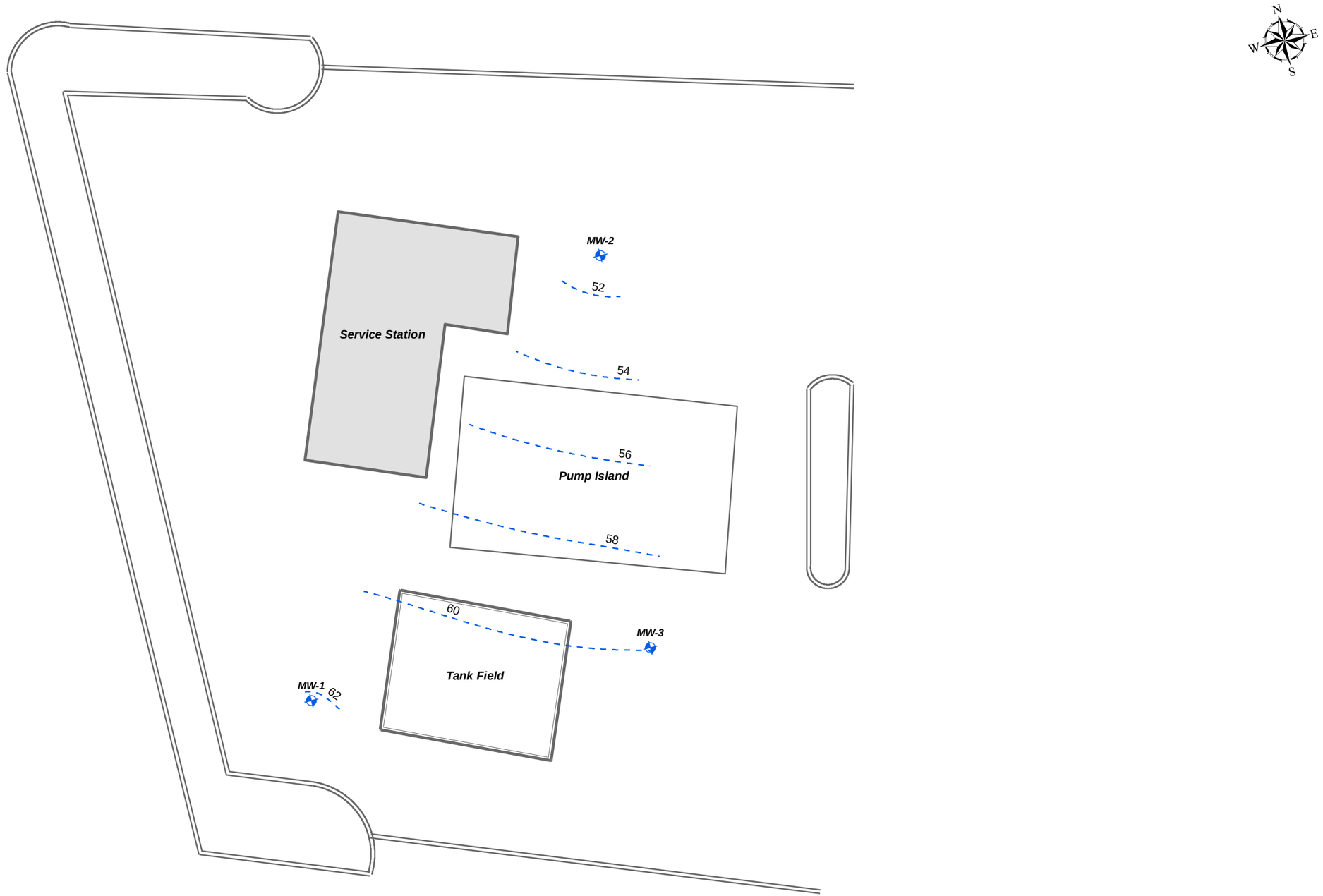
TABLE 3
POTABLE WATER ANALYTICAL DATA
JACKSONVILLE CITGO - 14226 JARRETTSVILLE PIKE (RT 146)
PHOENIX, MARYLAND

Location ID: **PW-1**

Sample Date	08/05/05							
Analyte Name (ppb)								
Acetone	4 J							
Methyl Tert-Butyl Ether	0.7							

J = estimated value
Analysis performed by EPA 524.2; only detected constituents are reported

Location	Groundwater Elevation (ft)
MW-1	62.15
MW-2	50.98
MW-3	59.97



Legend

Monitoring Well

Elevation Contours (ft)

0 25 50 Feet

Approximate scale: *1 inch equals 21 feet*

Note: Site features bases Baltimore County, MD aerial orthophotography (1988-1998)

Environmental Alliance, Inc.

1812 Newport Gap Pike - Wilmington, DE 19808
Phone: (302) 995-7544 - Fax: (302) 995-0941

Jacksonville Citgo
14226 Jarretsville Pike
Phoenix, Maryland

GROUNDWATER ELEVATION CONTOURS (AUGUST 2005)

DRAWN BY: JL	QA CHECK:	FILE NAME: 1957-GW Grad (8-05)	SCALE: SEE DRAWING	FIGURE NO: 1
APPROVED BY:	QA DATE:	PROJECT NO: 1957	DATE: 9/29/05	

ATTACHMENT II

Log of Boring: MW-1

Date Started: 7/20/2005
Date Completed: 7/20/2005
Total Depth (ft): 57.00
Boring Diameter (in): 4.25
Bedrock Depth (ft): N/A
Elevation (ft-msl): N/A
Remark:

Project Code: 1957
Project Name: Carroll Fuel - Phoenix
Drilled By: Earth Matters, Inc.
Logged By: Michael Cronin
Drill Rig: 4-40
Drill Method: Hollow stem auger
Sampling Method: Split spoon

Depth	Sample Number	Sample Interval	Recovery (inches)	Blow Counts	PID Units	Lithological Description	Interpreted Lithology	Well Construction	Comments
0						MH: Hand augered. Brown sandy silt, dry.			Work area PID 0.0.
-5	1		16	4|6|5|3	0.0	CH: Dark brown sandy clay, soft, dry.			
-10	2		3	3|5|5|4	0.0				
-15	3		14	4|5|6|8	0.0				
-20	4		12	10|9|10|8	0.0	MH: Brown fine sandy silt, loose, dry.			
-25	5		2	7|12|10|7	0.0				
-30	6		15	7|6|7|11	0.0	ML: Dark brown fine sandy silt, stiff, dry.			
-35	7		14	13|15|13|18	0.0	ML: Same as above (weathered bedrock).			
-40	8		12	17|50/4	0.0	ML: Dark brown very fine sandy silt, very stiff, dry.			
-45	9		10	20|50/4	0.0				
-50	10		8	50/5	0.0				
-55	11		12	50/5	0.0	ML: Same as above, wet.			

Log of Boring: MW-2

Date Started: 7/21/2005
Date Completed: 7/21/2005
Total Depth (ft): 55.00
Boring Diameter (in): 4.25
Bedrock Depth (ft): N/A
Elevation (ft-msl): N/A
Remark:

Project Code: 1957
Project Name: Carroll Fuel - Phoenix
Drilled By: Earth Matters, Inc.
Logged By: Michael Cronin
Drill Rig: 4-40
Drill Method: Hollow stem auger
Sampling Method: Split spoon

Depth	Sample Number	Sample Interval	Recovery (inches)	Blow Counts	PID Units	Lithological Description	Interpreted Lithology	Well Construction	Comments
0						CL: Hand augered. Gray sandy clay, stiff, dry.			Work area PID 0.0.
-5	1		6	4|5|5|6	0.0	CL: Brown sandy clay, stiff, dry.			
-10	2		21	4|4|5|13	0.0	CL: Brown silty clay, stiff, dry.			
-15	3		5	11|11|13|19	0.0				
-20	4		9	10|11|12|10	0.0	ML: Brown & gray fine sandy silt, stiff, dry (weathered bedrock).			
-25	5		10	13|13|20|12	0.0	ML: Same as above, very stiff (weathered bedrock).			
-30	6		5	21|21|28|20	0.0				
-35	7		16	13|11|14|13	0.0				
-40	8		10	17|16|16|50	0.0				
-45	9		11	20|50/4	0.0				
-50						ML: Same as above, wet.			
-55									

Log of Boring: MW-3

Date Started: 7/22/2005
Date Completed: 7/22/2005
Total Depth (ft): 50.00
Boring Diameter (in): 4.25
Bedrock Depth (ft): N/A
Elevation (ft-msl): N/A
Remark:

Project Code: 1957
Project Name: Carroll Fuel - Phoenix
Drilled By: Earth Matters, Inc.
Logged By: Michael Cronin
Drill Rig: 4-40
Drill Method: Hollow stem auger
Sampling Method: Split spoon

Depth	Sample Number	Sample Interval	Recovery (inches)	Blow Counts	PID Units	Lithological Description	Interpreted Lithology	Well Construction	Comments
0						MH: Hand augered. Brown sandy silt.			Work area PID 0.0.
-5	1		8	4|6|6|5	0.0	CH: Dark brown medium sandy clay, soft, dry.			
-10	2		14	10|8|11|9	0.0				
-15	3		6	12|12|10|12	0.0				
-20	4		8	13|50/6	0.0	ML: Brown clayey silt, stiff, dry.			
-25	5		16	24|22|23|28	0.0	ML: Brown fine sandy silt, stiff, dry.			
-30	6		10	24|13|14|15	0.0	ML: Same as above, banded.			
-35	7		14	18|20|50/5	0.0				
-40	8		12	20|50/5	0.0				
-45	9		8	50/5	0.0	SM: Brownish gray very fine silty sand, very firm, dry.			
-50	10		6	50/5					

ATTACHMENT III

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

302-995-7544

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 952608. Samples arrived at the laboratory on Monday, July 25, 2005. The PO# for this group is 1957.

Client Description	Lancaster Labs Number
MW149510720051230 Grab Soil Sample	4570044
MW244460721051110 Grab Soil Sample	4570045
MW344460722051100 Grab Soil Sample	4570046

1 COPY TO Environmental Alliance, Inc. Attn: Jason Leonard

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Questions? Contact your Client Services Representative
Heidi L Ortenzi at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Chemist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 4570044

MW149510720051230 Grab Soil Sample
Carroll-Fuel / Phoenix, MD #1957

Collected:07/20/2005 12:30 by CR

Account Number: 07039

Submitted: 07/25/2005 17:00
Reported: 08/10/2005 at 08:40
Discard: 08/18/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

PHNX1

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00111	Moisture	n.a.	15.9		0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						
02304	UST-Unleaded Soils by 8260B						
02016	Methyl Tertiary Butyl Ether	1634-04-4	4.	J	0.6	ug/kg	1
05460	Benzene	71-43-2	N.D.		0.6	ug/kg	1
05466	Toluene	108-88-3	N.D.		1.	ug/kg	1
05474	Ethylbenzene	100-41-4	N.D.		1.	ug/kg	1
06301	Xylene (Total)	1330-20-7	N.D.		1.	ug/kg	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	EPA 160.3 modified	1	07/27/2005 17:11	Scott W Freisher	1
02304	UST-Unleaded Soils by 8260B	SW-846 8260B	1	07/28/2005 13:45	Stephanie A Selis	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	07/27/2005 20:33	Emiley A King	n.a.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 4570045

MW244460721051110 Grab Soil Sample
Carroll-Fuel / Phoenix, MD #1957

Collected:07/21/2005 11:10 by CR

Account Number: 07039

Submitted: 07/25/2005 17:00
Reported: 08/10/2005 at 08:40
Discard: 08/18/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

PHNX2

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00111	Moisture	n.a.	12.5		0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						
02304	UST-Unleaded Soils by 8260B						
02016	Methyl Tertiary Butyl Ether	1634-04-4	3.	J	0.6	ug/kg	1
05460	Benzene	71-43-2	N.D.		0.6	ug/kg	1
05466	Toluene	108-88-3	N.D.		1.	ug/kg	1
05474	Ethylbenzene	100-41-4	N.D.		1.	ug/kg	1
06301	Xylene (Total)	1330-20-7	N.D.		1.	ug/kg	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	EPA 160.3 modified	1	07/27/2005 17:11	Scott W Freisher	1
02304	UST-Unleaded Soils by 8260B	SW-846 8260B	1	07/28/2005 14:09	Stephanie A Selis	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	07/27/2005 20:37	Emiley A King	n.a.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 4570046

MW344460722051100 Grab Soil Sample
Carroll-Fuel / Phoenix, MD #1957

Collected:07/22/2005 11:00 by CR

Account Number: 07039

Submitted: 07/25/2005 17:00
Reported: 08/10/2005 at 08:41
Discard: 08/18/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

PHNX3

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00111	Moisture	n.a.	11.5		0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						
02304	UST-Unleaded Soils by 8260B						
02016	Methyl Tertiary Butyl Ether	1634-04-4	1.	J	0.6	ug/kg	1
05460	Benzene	71-43-2	N.D.		0.6	ug/kg	1
05466	Toluene	108-88-3	N.D.		1.	ug/kg	1
05474	Ethylbenzene	100-41-4	N.D.		1.	ug/kg	1
06301	Xylene (Total)	1330-20-7	N.D.		1.	ug/kg	1

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
00111	Moisture	EPA 160.3 modified	3	07/29/2005 18:15	Scott W Freisher	1
02304	UST-Unleaded Soils by 8260B	SW-846 8260B	1	07/28/2005 14:34	Stephanie A Selis	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	07/27/2005 20:37	Emiley A King	n.a.

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 952608
Reported: 08/10/05 at 08:41 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 05208820003A	Sample number(s): 4570044-4570045							
Moisture				100		99-101		
Batch number: 05210820001A	Sample number(s): 4570046							
Moisture				100		99-101		
Batch number: B052091AA	Sample number(s): 4570044-4570046							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/kg	100		75-125		
Benzene	N.D.	0.5	ug/kg	86		77-119		
Toluene	N.D.	1.	ug/kg	88		81-116		
Ethylbenzene	N.D.	1.	ug/kg	85		82-115		
Xylene (Total)	N.D.	1.	ug/kg	83		82-117		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 05208820003A	Sample number(s): 4570044-4570045								
Moisture						8.8	12.0	31*	15
Batch number: 05210820001A	Sample number(s): 4570046								
Moisture						11.5	14.2	21*	15
Batch number: B052091AA	Sample number(s): 4570044-4570046								
Methyl Tertiary Butyl Ether	91	95	49-140	3	30				
Benzene	98	96	67-123	3	30				
Toluene	101	104	55-125	3	30				
Ethylbenzene	97	94	50-127	3	30				
Xylene (Total)	95	94	54-123	2	30				

Surrogate Quality Control

Analysis Name: UST-Unleaded Soils by 8260B
Batch number: B052091AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4570044	83	81	93	78
4570045	83	75	92	79

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 952608
Reported: 08/10/05 at 08:41 AM

Surrogate Quality Control

4570046	87	86	92	82
Blank	83	82	92	78
LCS	86	86	91	81
MS	84	77	89	84
MSD	85	80	91	82
Limits:	70-129	70-121	70-130	70-128

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only

Acct. # 7039 Group# 952608 Sample # 4570044-6

COC # 0075420

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Environmental Alliance Acct. #:
Project Name/#: Carroll Fuel-Phoenix-1957 PWSID #:
Project Manager: Joe Zuy P.O.#: 1957
Sampler: CR Quote #:
Name of state where samples were collected: MD

(2) (3) (4) (5)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (Check if ☐ Potable ☐ NPDES Applicable)	Matrix: Other	Total # of Containers	Analyses Requested: BTEX, MtBE via 8260	Analyses Requested: 8TO moist							Remarks
MW1495 072005 1230	7/20/05	1230	X		X			2	X	X							
MW24446 072105 1110	7/21/05	1110	X		X			2	X	X							
MW34446 072205 1100	7/22/05	1100	X		X			2	X	X							

For Lab Use Only
FSC:
SCR #:

(6) Temperature of samples upon receipt (if requested)

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax E-mail
Phone #: Fax #:
E-mail address:

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP) (EZEDD)

SDG Complete? Yes No
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	7/22/05	1600	Marvin McFallihr [signature]	7/25/05	11:30
Marvin McFallihr [signature]	7/25/05	17:00			
			Johnny Cumming [signature]	7/25/05	1700

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

2102 Rev. 10/27/02

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

302-995-7544

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 954510. Samples arrived at the laboratory on Monday, August 08, 2005. The PO# for this group is 1957.

Client Description	Lancaster Labs Number
MW010805051330 Grab Water Sample	4579149
MW030805051400 Grab Water Sample	4579150
MW020805051415 Grab Water Sample	4579151
PW010805051430 Grab Water Sample	4579152

1 COPY TO Environmental Alliance, Inc. Attn: Jason Leonard

Lancaster Laboratories

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Analysis Report

Questions? Contact your Client Services Representative
Heidi L Ortenzi at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Chemist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 4579149

MW010805051330 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 13:30 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07582	PPL + Xylene by 8260					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.	1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	1.	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.	2.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.	0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	7.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1
06875	Acrylonitrile	107-13-1	N.D.	4.	ug/l	1
06888	Acrolein	107-02-8	N.D.	40.	ug/l	1
07583	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2.	ug/l	1

2-Chloroethyl vinyl ether is an acid labile compound and may not be recovered in an acid preserved sample.
The percent recovery for bromomethane was outside QC limits low in the LCS associated with this sample. This compound was not detected in the sample.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 4579149

MW010805051330 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 13:30 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07582	PPL + Xylene by 8260	SW-846 8260B	1	08/16/2005 03:53	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/16/2005 03:53	Jason M Long	n.a.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 4579150

MW030805051400 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:00 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV3

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
07582	PPL + Xylene by 8260						
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.		2.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.		0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	1.	J	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06310	Xylene (Total)	1330-20-7	2.	J	0.8	ug/l	1
06875	Acrylonitrile	107-13-1	N.D.		4.	ug/l	1
06888	Acrolein	107-02-8	N.D.		40.	ug/l	1
07583	2-Chloroethyl Vinyl Ether	110-75-8	N.D.		2.	ug/l	1

2-Chloroethyl vinyl ether is an acid labile compound and may not be recovered in an acid preserved sample.
The percent recovery for bromomethane was outside QC limits low in the LCS associated with this sample. This compound was not detected in the sample.

Lancaster Laboratories Sample No. WW 4579150

MW030805051400 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:00 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07582	PPL + Xylene by 8260	SW-846 8260B	1	08/16/2005 04:15	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/16/2005 04:15	Jason M Long	n.a.

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Analysis Report

Lancaster Laboratories Sample No. WW 4579151

MW020805051415 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:15 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV2

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
07582	PPL + Xylene by 8260						
02010	Methyl Tertiary Butyl Ether	1634-04-4	4.	J	0.5	ug/l	1
05385	Chloromethane	74-87-3	N.D.		1.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		1.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		1.	ug/l	1
05389	Trichlorofluoromethane	75-69-4	N.D.		2.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		0.8	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		0.8	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.		0.8	ug/l	1
05396	Chloroform	67-66-3	N.D.		0.8	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.		0.8	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	0.5	J	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.		0.8	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		0.8	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1
06875	Acrylonitrile	107-13-1	N.D.		4.	ug/l	1
06888	Acrolein	107-02-8	N.D.		40.	ug/l	1
07583	2-Chloroethyl Vinyl Ether	110-75-8	N.D.		2.	ug/l	1

2-Chloroethyl vinyl ether is an acid labile compound and may not be recovered in an acid preserved sample.
The percent recovery for bromomethane was outside QC limits low in the LCS associated with this sample. This compound was not detected in the sample.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW 4579151

MW020805051415 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:15 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKV2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07582	PPL + Xylene by 8260	SW-846 8260B	1	08/16/2005 04:38	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/16/2005 04:38	Jason M Long	n.a.

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. PW 4579152

PW010805051430 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:30 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKP1

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
03600	Additional Compounds by 524.2						
03599	Ethyl Ether	60-29-7	N.D.		0.2	ug/l	1
03608	Acetone	67-64-1	4.0	J	3.0	ug/l	1
03609	Methyl Iodide	74-88-4	N.D.		0.1	ug/l	1
03610	Carbon Disulfide	75-15-0	N.D.		0.4	ug/l	1
03611	Allyl Chloride	107-05-1	N.D.		0.1	ug/l	1
03612	Acrylonitrile	107-13-1	N.D.		2.0	ug/l	1
03613	Methyl Tertiary Butyl Ether	1634-04-4	0.7		0.1	ug/l	1
03614	2-Butanone	78-93-3	N.D.		2.0	ug/l	1
03615	Propionitrile	107-12-0	N.D.		3.0	ug/l	1
03616	Methyl Acrylate	96-33-3	N.D.		0.5	ug/l	1
03617	Methacrylonitrile	126-98-7	N.D.		1.0	ug/l	1
03621	Tetrahydrofuran	109-99-9	N.D.		2.0	ug/l	1
03622	1-Chlorobutane	109-69-3	N.D.		0.2	ug/l	1
03623	Methyl Methacrylate	80-62-6	N.D.		0.2	ug/l	1
03624	2-Nitropropane	79-46-9	N.D.		9.0	ug/l	1
03625	Chloroacetonitrile	107-14-2	N.D.		7.0	ug/l	1
03626	1,1-Dichloropropanone	513-88-2	N.D.		9.0	ug/l	1
03627	4-Methyl-2-pentanone	108-10-1	N.D.		0.6	ug/l	1
03628	Ethyl Methacrylate	97-63-2	N.D.		0.1	ug/l	1
03629	2-Hexanone	591-78-6	N.D.		0.6	ug/l	1
03630	trans-1,4-Dichloro-2-butene	110-57-6	N.D.		1.0	ug/l	1
03633	Pentachloroethane	76-01-7	N.D.		0.1	ug/l	1
03634	Hexachloroethane	67-72-1	N.D.		0.1	ug/l	1
03635	Nitrobenzene	98-95-3	N.D.		5.0	ug/l	1
03643	EPA Method 524.2						
00328	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.1	ug/l	1
00498	Dichlorodifluoromethane	75-71-8	N.D.		0.2	ug/l	1
00503	2,2-Dichloropropane	594-20-7	N.D.		0.2	ug/l	1
00891	cis-1,2-Dichloroethene	156-59-2	N.D.		0.1	ug/l	1
00892	Bromochloromethane	74-97-5	N.D.		0.1	ug/l	1
00978	1,1-Dichloropropene	563-58-6	N.D.		0.1	ug/l	1
00979	Dibromomethane	74-95-3	N.D.		0.1	ug/l	1
00980	1,3-Dichloropropane	142-28-9	N.D.		0.1	ug/l	1
00981	1,2-Dibromoethane	106-93-4	N.D.		0.1	ug/l	1
00983	m+p-Xylene	1330-20-7	N.D.		0.2	ug/l	1
00985	o-Xylene	95-47-6	N.D.		0.1	ug/l	1

Lancaster Laboratories Sample No. PW 4579152

PW010805051430 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:30 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKP1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00986	Isopropylbenzene	98-82-8	N.D.	0.1	ug/l	1
00987	Bromobenzene	108-86-1	N.D.	0.1	ug/l	1
00988	1,2,3-Trichloropropane	96-18-4	N.D.	0.2	ug/l	1
00989	n-Propylbenzene	103-65-1	N.D.	0.1	ug/l	1
00990	2-Chlorotoluene	95-49-8	N.D.	0.1	ug/l	1
00991	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	ug/l	1
00992	4-Chlorotoluene	106-43-4	N.D.	0.2	ug/l	1
00993	tert-Butylbenzene	98-06-6	N.D.	0.1	ug/l	1
00994	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	ug/l	1
00995	sec-Butylbenzene	135-98-8	N.D.	0.1	ug/l	1
00996	p-Isopropyltoluene	99-87-6	N.D.	0.1	ug/l	1
00997	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	ug/l	1
00998	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	ug/l	1
00999	n-Butylbenzene	104-51-8	N.D.	0.2	ug/l	1
01000	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	ug/l	1
01001	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.4	ug/l	1
01002	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.2	ug/l	1
01003	Hexachlorobutadiene	87-68-3	N.D.	0.2	ug/l	1
01004	Naphthalene	91-20-3	N.D.	0.2	ug/l	1
01005	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.2	ug/l	1
03397	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	ug/l	1
03398	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	ug/l	1
03399	Chloromethane	74-87-3	N.D.	0.2	ug/l	1
03400	Bromomethane	74-83-9	N.D.	0.1	ug/l	1
03401	Vinyl Chloride	75-01-4	N.D.	0.1	ug/l	1
03402	Chloroethane	75-00-3	N.D.	0.2	ug/l	1
03403	Trichlorofluoromethane	75-69-4	N.D.	0.2	ug/l	1
03404	1,1-Dichloroethene	75-35-4	N.D.	0.1	ug/l	1
03405	Methylene Chloride	75-09-2	N.D.	0.3	ug/l	1
03406	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	ug/l	1
03407	1,1-Dichloroethane	75-34-3	N.D.	0.1	ug/l	1
03408	Chloroform	67-66-3	N.D.	0.1	ug/l	1
03409	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	ug/l	1
03410	Carbon Tetrachloride	56-23-5	N.D.	0.1	ug/l	1
03411	Benzene	71-43-2	N.D.	0.1	ug/l	1
03412	1,2-Dichloroethane	107-06-2	N.D.	0.1	ug/l	1
03413	Trichloroethene	79-01-6	N.D.	0.1	ug/l	1
03414	1,2-Dichloropropane	78-87-5	N.D.	0.1	ug/l	1
03415	Bromodichloromethane	75-27-4	N.D.	0.1	ug/l	1
03416	Toluene	108-88-3	N.D.	0.1	ug/l	1
03417	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	ug/l	1
03418	Tetrachloroethene	127-18-4	N.D.	0.1	ug/l	1

Lancaster Laboratories Sample No. PW 4579152

PW010805051430 Grab Water Sample
Citgo - Jacksonville, MD / 1957

Collected:08/05/2005 14:30 by DZ

Account Number: 07039

Submitted: 08/08/2005 18:30
Reported: 08/22/2005 at 15:34
Discard: 09/06/2005

Environmental Alliance, Inc.
1812 Newport Gap Pike
Wilmington DE 19808

JCKP1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
03419	Dibromochloromethane	124-48-1	N.D.	0.1	ug/l	1
03420	Chlorobenzene	108-90-7	N.D.	0.1	ug/l	1
03421	Ethylbenzene	100-41-4	N.D.	0.1	ug/l	1
03422	Styrene	100-42-5	N.D.	0.1	ug/l	1
03423	Bromoform	75-25-2	N.D.	0.1	ug/l	1
03424	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	ug/l	1

The value reported for acetone is an estimated maximum possible concentration due to interference from a non-target compound.

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
03600	Additional Compounds by 524.2	EPA 524.2 Rev. 4.1	1	08/16/2005 16:49	Shawn J Rice	1
03643	EPA Method 524.2	EPA 524.2 Rev. 4.1	1	08/16/2005 16:49	Shawn J Rice	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 954510
Reported: 08/22/05 at 03:35 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: N052171AC	Sample number(s): 4579149-4579151							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		77-127		
Chloromethane	N.D.	1.	ug/l	81		59-177		
Vinyl Chloride	N.D.	1.	ug/l	81		71-134		
Bromomethane	N.D.	1.	ug/l	60*		62-131		
Chloroethane	N.D.	1.	ug/l	75		67-127		
Trichlorofluoromethane	N.D.	2.	ug/l	90		70-148		
1,1-Dichloroethene	N.D.	0.8	ug/l	99		79-130		
Methylene Chloride	N.D.	2.	ug/l	103		80-128		
trans-1,2-Dichloroethene	N.D.	0.8	ug/l	98		81-124		
1,1-Dichloroethane	N.D.	1.	ug/l	99		83-127		
cis-1,2-Dichloroethene	N.D.	0.8	ug/l	102		84-117		
Chloroform	N.D.	0.8	ug/l	101		86-124		
1,1,1-Trichloroethane	N.D.	0.8	ug/l	95		83-127		
Carbon Tetrachloride	N.D.	1.	ug/l	93		77-130		
Benzene	N.D.	0.5	ug/l	103		85-117		
1,2-Dichloroethane	N.D.	1.	ug/l	100		77-132		
Trichloroethene	N.D.	1.	ug/l	99		87-117		
1,2-Dichloropropane	N.D.	1.	ug/l	103		80-117		
Bromodichloromethane	N.D.	1.	ug/l	98		83-121		
Toluene	N.D.	0.7	ug/l	95		85-115		
1,1,2-Trichloroethane	N.D.	0.8	ug/l	100		86-113		
Tetrachloroethene	N.D.	0.8	ug/l	89		74-125		
Dibromochloromethane	N.D.	1.	ug/l	91		78-119		
Chlorobenzene	N.D.	0.8	ug/l	96		85-115		
Ethylbenzene	N.D.	0.8	ug/l	93		82-119		
Bromoform	N.D.	1.	ug/l	88		69-118		
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	98		72-119		
trans-1,3-Dichloropropene	N.D.	1.	ug/l	94		79-114		
cis-1,3-Dichloropropene	N.D.	1.	ug/l	100		78-114		
Xylene (Total)	N.D.	0.8	ug/l	92		83-113		
Acrylonitrile	N.D.	4.	ug/l	106		55-137		
Acrolein	N.D.	40.	ug/l	90		28-146		
2-Chloroethyl Vinyl Ether	N.D.	2.	ug/l	96		53-133		
Batch number: S052281AA	Sample number(s): 4579152							
1,1,1,2-Tetrachloroethane	N.D.	0.1	ug/l	101		70-130		
Dichlorodifluoromethane	N.D.	0.2	ug/l	74		70-130		
2,2-Dichloropropane	N.D.	0.2	ug/l	104		70-130		
cis-1,2-Dichloroethene	N.D.	0.1	ug/l	101		70-130		
Bromochloromethane	N.D.	0.1	ug/l	105		70-130		
1,1-Dichloropropene	N.D.	0.1	ug/l	99		70-130		
Dibromomethane	N.D.	0.1	ug/l	102		70-130		
1,3-Dichloropropane	N.D.	0.1	ug/l	102		70-130		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 954510
Reported: 08/22/05 at 03:35 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dibromoethane	N.D.	0.1	ug/l	100		70-130		
m+p-Xylene	N.D.	0.2	ug/l	109		70-130		
o-Xylene	N.D.	0.1	ug/l	107		70-130		
Isopropylbenzene	N.D.	0.1	ug/l	109		70-130		
Bromobenzene	N.D.	0.1	ug/l	101		70-130		
1,2,3-Trichloropropane	N.D.	0.2	ug/l	98		70-130		
n-Propylbenzene	N.D.	0.1	ug/l	103		70-130		
2-Chlorotoluene	N.D.	0.1	ug/l	103		70-130		
1,3,5-Trimethylbenzene	N.D.	0.1	ug/l	111		70-130		
4-Chlorotoluene	N.D.	0.2	ug/l	106		70-130		
tert-Butylbenzene	N.D.	0.1	ug/l	107		70-130		
1,2,4-Trimethylbenzene	N.D.	0.1	ug/l	108		70-130		
sec-Butylbenzene	N.D.	0.1	ug/l	106		70-130		
p-Isopropyltoluene	N.D.	0.1	ug/l	108		70-130		
1,3-Dichlorobenzene	N.D.	0.1	ug/l	102		70-130		
1,4-Dichlorobenzene	N.D.	0.1	ug/l	102		70-130		
n-Butylbenzene	N.D.	0.2	ug/l	105		70-130		
1,2-Dichlorobenzene	N.D.	0.1	ug/l	98		70-130		
1,2-Dibromo-3-chloropropane	N.D.	0.4	ug/l	100		70-130		
1,2,4-Trichlorobenzene	N.D.	0.2	ug/l	95		70-130		
Hexachlorobutadiene	N.D.	0.2	ug/l	101		70-130		
Naphthalene	N.D.	0.2	ug/l	95		70-130		
1,2,3-Trichlorobenzene	N.D.	0.2	ug/l	95		70-130		
trans-1,3-Dichloropropene	N.D.	0.1	ug/l	97		70-130		
cis-1,3-Dichloropropene	N.D.	0.1	ug/l	101		70-130		
Chloromethane	N.D.	0.2	ug/l	80		70-130		
Bromomethane	N.D.	0.1	ug/l	94		70-130		
Vinyl Chloride	N.D.	0.1	ug/l	83		70-130		
Chloroethane	N.D.	0.2	ug/l	85		70-130		
Trichlorofluoromethane	N.D.	0.2	ug/l	97		70-130		
1,1-Dichloroethene	N.D.	0.1	ug/l	99		70-130		
Methylene Chloride	N.D.	0.3	ug/l	94		70-130		
trans-1,2-Dichloroethene	N.D.	0.1	ug/l	97		70-130		
1,1-Dichloroethane	N.D.	0.1	ug/l	101		70-130		
Chloroform	N.D.	0.1	ug/l	102		70-130		
1,1,1-Trichloroethane	N.D.	0.1	ug/l	101		70-130		
Carbon Tetrachloride	N.D.	0.1	ug/l	101		70-130		
Benzene	N.D.	0.1	ug/l	106		70-130		
1,2-Dichloroethane	N.D.	0.1	ug/l	102		70-130		
Trichloroethene	N.D.	0.1	ug/l	101		70-130		
1,2-Dichloropropane	N.D.	0.1	ug/l	103		70-130		
Bromodichloromethane	N.D.	0.1	ug/l	100		70-130		
Toluene	N.D.	0.1	ug/l	106		70-130		
1,1,2-Trichloroethane	N.D.	0.1	ug/l	103		70-130		
Tetrachloroethene	N.D.	0.1	ug/l	101		70-130		
Dibromochloromethane	N.D.	0.1	ug/l	105		70-130		
Chlorobenzene	N.D.	0.1	ug/l	99		70-130		
Ethylbenzene	N.D.	0.1	ug/l	109		70-130		
Styrene	N.D.	0.1	ug/l	111		70-130		
Bromoform	N.D.	0.1	ug/l	98		70-130		
1,1,2,2-Tetrachloroethane	N.D.	0.1	ug/l	99		70-130		
Ethyl Ether	N.D.	0.2	ug/l	91		70-130		
Acetone	N.D.	3.0	ug/l	98		70-130		
Methyl Iodide	N.D.	0.1	ug/l	96		70-130		
Carbon Disulfide	N.D.	0.4	ug/l	96		70-130		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 954510
Reported: 08/22/05 at 03:35 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Allyl Chloride	N.D.	0.1	ug/l	105		70-130		
Acrylonitrile	N.D.	2.0	ug/l	92		70-130		
Methyl Tertiary Butyl Ether	N.D.	0.1	ug/l	97		70-130		
2-Butanone	N.D.	2.0	ug/l	103		70-130		
Propionitrile	N.D.	3.0	ug/l	98		70-130		
Methyl Acrylate	N.D.	0.5	ug/l	101		70-130		
Methacrylonitrile	N.D.	1.0	ug/l	99		70-130		
Tetrahydrofuran	N.D.	2.0	ug/l	95		70-130		
1-Chlorobutane	N.D.	0.2	ug/l	96		70-130		
Methyl Methacrylate	N.D.	0.2	ug/l	95		70-130		
2-Nitropropane	N.D.	9.0	ug/l	100		70-130		
Chloroacetonitrile	N.D.	7.0	ug/l	89		70-130		
1,1-Dichloropropanone	N.D.	9.0	ug/l	91		70-130		
4-Methyl-2-pentanone	N.D.	0.6	ug/l	104		70-130		
Ethyl Methacrylate	N.D.	0.1	ug/l	103		70-130		
2-Hexanone	N.D.	0.6	ug/l	100		70-130		
trans-1,4-Dichloro-2-butene	N.D.	1.0	ug/l	101		70-130		
Pentachloroethane	N.D.	0.1	ug/l	105		70-130		
Hexachloroethane	N.D.	0.1	ug/l	93		70-130		
Nitrobenzene	N.D.	5.0	ug/l	87		70-130		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: N052171AC	Sample number(s): 4579149-4579151								
Methyl Tertiary Butyl Ether	90	115	69-134	9	30				
Chloromethane	87	82	72-208	6	30				
Vinyl Chloride	92	89	81-150	3	30				
Bromomethane	75	53*	59-143	35*	30				
Chloroethane	86	54*	63-142	46*	30				
Trichlorofluoromethane	104	108	77-177	4	30				
1,1-Dichloroethene	114	121	87-145	6	30				
Methylene Chloride	105	109	79-133	4	30				
trans-1,2-Dichloroethene	111	117	82-133	5	30				
1,1-Dichloroethane	109	115	85-135	5	30				
cis-1,2-Dichloroethene	110	115	83-126	5	30				
Chloroform	107	113	82-131	5	30				
1,1,1-Trichloroethane	107	113	81-142	6	30				
Carbon Tetrachloride	106	113	79-155	6	30				
Benzene	111	117	83-128	5	30				
1,2-Dichloroethane	101	105	73-136	5	30				
Trichloroethene	109	114	83-136	5	30				
1,2-Dichloropropane	107	113	83-129	5	30				
Bromodichloromethane	99	105	80-129	6	30				
Toluene	102	107	83-127	5	30				
1,1,2-Trichloroethane	101	106	77-125	5	30				
Tetrachloroethene	97	103	78-133	7	30				
Dibromochloromethane	90	95	73-119	5	30				
Chlorobenzene	99	104	83-120	5	30				
Ethylbenzene	99	105	82-129	5	30				
Bromoform	86	91	64-119	6	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Environmental Alliance, Inc. Group Number: 954510
Reported: 08/22/05 at 03:35 PM

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1,2,2-Tetrachloroethane	97	99	69-121	1	30				
trans-1,3-Dichloropropene	92	97	75-117	5	30				
cis-1,3-Dichloropropene	101	106	76-117	5	30				
Xylene (Total)	99	104	82-130	5	30				
Acrylonitrile	104	110	54-132	5	30				
Acrolein	89	94	21-153	6	30				
2-Chloroethyl Vinyl Ether	0*	0*	1-172	0	30				

Surrogate Quality Control

Analysis Name: PPL + Xylene (total) by 8260
Batch number: N052171AC

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4579149	100	100	95	91
4579150	101	100	94	91
4579151	100	99	95	90
Blank	103	101	95	89
LCS	100	104	101	94
MS	99	103	100	94
MSD	100	104	99	94
Limits:	81-120	82-112	85-112	83-113

Analysis Name: EPA Method 524.2
Batch number: S052281AA

	4-Bromofluorobenzene	1,2-Dichlorobenzene-d4
4579152	86	84
Blank	86	85
LCS	103	102
Limits:	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 7039 Group# 954510 Sample # 4579149-52

COC # 0097062

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Citgo Jacksonville Acct. #:
Project Name/#: Jarrettsville Pike/1957 PWSID #:
Project Manager: Joe Rossi P.O.#: 1957
Sampler: Derek/Zay Quote #:
Name of state where samples were collected: MD

For Lab Use Only
FSC:
SCR #:

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Soil	Water	Other	(4) Total # of Containers	(5) Analyses Requested: [illegible]	VOC's Suissa (PoLplus) (MtBE)	524.2						Remarks
MW0108050513330	08-05-05	1330	✓			✓		3		✓							
MW03080505 1400	08-05-05	1400	✓			✓		3		✓							
MW02080505 1415	08-05-05	1415	✓			✓		3		✓							
PW010805051430	08-05-05	1430	✓			✓		3			✓						

(6)

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: EZ-EDD
Rush results requested by (please circle): (Phone) Fax ~~E-mail~~
Phone #: 302-995-7544 Fax #:
E-mail address: JRossi@envolliance

(8) **Data Package Options** (please circle if required)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) (Other)
Type III (NJ Red. Del.) EZ-EDD
Type IV (CLP)

SDG Complete? Yes No
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	08-08-05	800	Marvin McFalluke	8/8/05	10:10
Marvin McFalluke	8/8/05	1830			
			[signature]	8/8/05	1830

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.