REPSG
React Environmental
Professional Services Group, Inc.

March 7, 2014

Jeannette DeBartolomeo
Environmental Compliance Specialist
MDE-OCP
1800 Washington Blvd.
Suite 620
Baltimore, MD 21230

RE: Drinking Water Results
Calvert Citgo (Former Alger County Store)
2815 North East Road, North East, MD
2802 Northeast Road (Ginski Residence)
2794 Northeast Road (O'Brien's Residence)
North East, Maryland 21901
Facility No. 5678
REPSG Project Reference No. 005977.130.01

Dear Ms. DeBartolomeo,

Attached please find the drinking water results for the O'Brien and Ginski Residences, located at 2802 and 2794 Northeast Road in Northeast Maryland (as related to case NO.: 1992-2616-CE). These results are for the February 2014 drinking water events.

If you have any questions or concerns, please do not hesitate to contact our office at 215-729-3220.

Sincerely,

Suzanne Shourds
Project Manager
React Environmental Professional Services Group, Inc

enclosures

P.O. Box 5377
6901 Kingsessing Avenue, Suite 201
Philadelphia, PA 19142-0377

215 729.3220
215 729.1557 (Fax)
www.repsg.com

Analytical Laboratory Services, Inc. 2794

Environmental • Industrial Hygiene • Field Services

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

COC#

Co. Name: REPSG, Inc.

Contact (Report to): James Manuel Phone: 215-719-3220

Address: 6901 Kingsessing Ave Philadelphia, PA 19142

Bill to (if different than Report to): Same PO#: 8961

Project Name/#: Calvert City 0 / 5977 ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:

[ ] Rush-Subject to ALSI approval and surcharges. Approved By:

Email? [X] -Y jmanuel@repsg.com / bmac@philarepsg.com sshoudse@repsg.com

Fax? [ ] -Y No.

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis
1 DW-004K	Post-filtration	2-10-14	11:00	G	DW	2
2 DW-004J	Mid-Carbon 2	2-10-14	11:05	G	DW	2
3 DW-004I	Mid-Carbon 1	2-10-14	11:10	G	DW	2
4 DW-004L	Pre-filtration	2-10-14	11:15	G	DW	2
5						
6						
7						
8						

***Container Type: VOA

***Container Size: 40 mL

*** Preservative: HCL + ASC

ANALYSES/METHOD REQUESTED: VOC's by SW4.2 Including Fuel Oxygenates

Receipt Information (completed by Sample Receiving)

Performed by: INITIAL HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.	Container in good condition?	COC/Labels complete/accurate?	Received on ice?	(if present) Seals intact?	Custody seals Present?
N	N	N	N	N	N
Y	Y	Y	Y	Y	Y

Correct containers? Correct sample volume? Correct preservation? Headspace/Volatiles?

SAMPLED BY (Please Print): Gavin Maloskey

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)

SDWA Forms? ⇨ yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]

EDDs Required? [X] If yes, format type: EQUIS Other

⇨ Enter PWSID No.

DOD Criteria Required?

ALSI FIELD SERVICES

[ ] Pickup

[ ] Labor

[ ] Composite Sampling

[ ] Rental Equipment

[ ] Other:

* G=Grab; C=Composite

**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

Pre-Filtration

			Sample ID	*DW-004C*	*DW-004C*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
1,2-Dichloroethane	5	ug/l		**12.4**	**11.4**
Acetone	**	ug/l		ND	20.5
Isopropyl benzene	**	ug/l		ND	0.16
Isopropyl ether	**	ug/l		5.7	6.8
Methyl ethyl ketone	**	ug/l		ND	12.1
Methyl tert-butyl ether	20	ug/l		**529**	**577**
Tert-Amyl alcohol	**	ug/l		3.7	6420
Tert-Amyl Methyl Ether	**	ug/l		4240	ND
Tetrahydrofuran	**	ug/l		ND	ND

Mid-Carbon 1

			Sample ID	*DW-004I*	*DW-004I*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		8	19.1
Methyl ethyl ketone	**	ug/l		17.7	10.5
Methyl tert-butyl ether	20	ug/l		ND	0.58
tert-Butylalcohol	**	ug/l		2560	5420
Tetrahydrofuran	**	ug/l		ND	13.8

Mid-Carbon 2

			Sample ID	*DW-004J*	*DW-004J*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		3.3	25.3
Methyl ethyl ketone	**	ug/l		12.2	13.3
Methyl tert-butyl ether	20	ug/l		ND	0.12
tert-Butylalcohol	**	ug/l		2860	5700
Tetrahydrofuran	**	ug/l		ND	3.9

Post-Carbon

			Sample ID	*DW-004K*	*DW-004K*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		7.5	23
Methyl ethyl ketone	**	ug/l		8.7	14.8
tert-Butylalcohol	**	ug/l		2840	5150
Tetrahydrofuran	**	ug/l		ND	4.8

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React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Semi-Volatile Organic Compounds (SVOCs)						
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	**11.4**	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	20.5	19.1	25.3	23
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		0.16J	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		6.8	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		12.1	10.5	13.3	14.8
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**577**	0.58	0.12J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<160U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		6420	5420	5700	5150
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	13.8	3.9	4.8

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2794 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

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ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

February 18, 2014

Ms. Brenda MacPhail Kellogg
REPSG
6901 Kingsessing Blvd.
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1071273**
Purchase Order:	**8961**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Ms. Kellogg,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, February 11, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. James Manuel

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

SAMPLE SUMMARY

Workorder: 1071273 2014-CALVERT CITGO/5977 Discard Date: 03/04/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1071273001	DW-004K_20140210_N	Water	2/10/14 11:00	2/11/14 21:30	Customer
1071273002	DW-004J_20140210_N	Water	2/10/14 11:05	2/11/14 21:30	Customer
1071273003	DW-004I_20140210_N	Water	2/10/14 11:10	2/11/14 21:30	Customer
1071273004	DW-004C_20140210_N	Water	2/10/14 11:15	2/11/14 21:30	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273001** Date Collected: 2/10/2014 11:00 Matrix: Water

Sample ID: **DW-004K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	23.0	ug/L		5.0	2.2	EPA 524.2			2/16/14 01:50	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 01:50	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/16/14 01:50	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:50	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/16/14 01:50	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:50	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:50	TMP	A
2-Butanone	14.8	ug/L		2.5	1.3	EPA 524.2			2/16/14 01:50	TMP	A
tert-Butyl Alcohol	5150	ug/L		500	140	EPA 524.2			2/18/14 04:33	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:50	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:50	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:50	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:50	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 01:50	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:50	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/16/14 01:50	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:50	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:50	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 01:50	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:50	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/16/14 01:50	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:50	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273001** Date Collected: 2/10/2014 11:00 Matrix: Water

Sample ID: **DW-004K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:50	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:50	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:50	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 01:50	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/16/14 01:50	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 01:50	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:50	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:50	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/16/14 01:50	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/16/14 01:50	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:50	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/16/14 01:50	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:50	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 01:50	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:50	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/16/14 01:50	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/16/14 01:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/16/14 01:50	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/16/14 01:50	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/16/14 01:50	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/16/14 01:50	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/16/14 01:50	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:50	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:50	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 01:50	TMP	A
Tetrahydrofuran	4.8	ug/L		2.5	0.81	EPA 524.2			2/16/14 01:50	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273001** Date Collected: 2/10/2014 11:00 Matrix: Water

Sample ID: **DW-004K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/16/14 01:50	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:50	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:50	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:50	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:50	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/16/14 01:50	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:50	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:50	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:50	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:50	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:50	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	76.5	%		70-130		EPA 524.2			2/16/14 01:50	TMP	A
4-Bromofluorobenzene (S)	79.1	%		70-130		EPA 524.2			2/16/14 01:50	TMP	A
1,2-Dichlorobenzene-d4 (S)	70.1	%		70-130		EPA 524.2			2/18/14 04:33	TMP	B
4-Bromofluorobenzene (S)	78.7	%		70-130		EPA 524.2			2/18/14 04:33	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273002** Date Collected: 2/10/2014 11:05 Matrix: Water

Sample ID: **DW-004J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	25.3	ug/L		5.0	2.2	EPA 524.2			2/16/14 01:24	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 01:24	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/16/14 01:24	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:24	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/16/14 01:24	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:24	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:24	TMP	A
2-Butanone	13.3	ug/L		2.5	1.3	EPA 524.2			2/16/14 01:24	TMP	A
tert-Butyl Alcohol	5700	ug/L		500	140	EPA 524.2			2/18/14 04:59	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:24	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:24	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:24	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:24	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 01:24	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:24	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/16/14 01:24	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:24	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:24	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 01:24	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:24	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/16/14 01:24	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:24	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273002** Date Collected: 2/10/2014 11:05 Matrix: Water

Sample ID: **DW-004J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:24	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:24	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:24	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 01:24	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/16/14 01:24	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 01:24	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:24	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 01:24	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/16/14 01:24	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/16/14 01:24	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 01:24	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/16/14 01:24	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:24	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 01:24	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:24	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/16/14 01:24	TMP	A
Methyl t-Butyl Ether	0.12J	ug/L		0.50	0.090	EPA 524.2			2/16/14 01:24	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/16/14 01:24	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/16/14 01:24	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/16/14 01:24	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/16/14 01:24	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/16/14 01:24	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 01:24	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 01:24	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 01:24	TMP	A
Tetrahydrofuran	3.9	ug/L		2.5	0.81	EPA 524.2			2/16/14 01:24	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:24	TMP	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273002** Date Collected: 2/10/2014 11:05 Matrix: Water

Sample ID: **DW-004J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/16/14 01:24	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 01:24	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 01:24	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 01:24	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 01:24	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/16/14 01:24	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 01:24	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 01:24	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 01:24	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 01:24	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 01:24	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	75.3	%		70-130		EPA 524.2			2/16/14 01:24	TMP	A
4-Bromofluorobenzene (S)	80.2	%		70-130		EPA 524.2			2/16/14 01:24	TMP	A
1,2-Dichlorobenzene-d4 (S)	72.1	%		70-130		EPA 524.2			2/18/14 04:59	TMP	B
4-Bromofluorobenzene (S)	78.6	%		70-130		EPA 524.2			2/18/14 04:59	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273003** Date Collected: 2/10/2014 11:10 Matrix: Water

Sample ID: **DW-004I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	19.1	ug/L		5.0	2.2	EPA 524.2			2/16/14 00:58	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:58	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/16/14 00:58	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:58	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/16/14 00:58	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:58	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:58	TMP	A
2-Butanone	10.5	ug/L		2.5	1.3	EPA 524.2			2/16/14 00:58	TMP	A
tert-Butyl Alcohol	5420	ug/L		500	140	EPA 524.2			2/18/14 05:24	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:58	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:58	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:58	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:58	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:58	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:58	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/16/14 00:58	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:58	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:58	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:58	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:58	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/16/14 00:58	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:58	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273003** Date Collected: 2/10/2014 11:10 Matrix: Water

Sample ID: **DW-004I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:58	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:58	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:58	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:58	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/16/14 00:58	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:58	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:58	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:58	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/16/14 00:58	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/16/14 00:58	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:58	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/16/14 00:58	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:58	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:58	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:58	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/16/14 00:58	TMP	A
Methyl t-Butyl Ether	0.58	ug/L		0.50	0.090	EPA 524.2			2/16/14 00:58	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/16/14 00:58	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/16/14 00:58	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/16/14 00:58	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/16/14 00:58	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/16/14 00:58	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:58	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:58	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:58	TMP	A
Tetrahydrofuran	13.8	ug/L		2.5	0.81	EPA 524.2			2/16/14 00:58	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:58	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273003** Date Collected: 2/10/2014 11:10 Matrix: Water

Sample ID: **DW-004I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/16/14 00:58	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:58	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:58	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:58	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:58	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/16/14 00:58	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:58	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:58	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:58	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:58	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:58	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	71.4	%		70-130		EPA 524.2			2/16/14 00:58	TMP	A
4-Bromofluorobenzene (S)	77.2	%		70-130		EPA 524.2			2/16/14 00:58	TMP	A
1,2-Dichlorobenzene-d4 (S)	71.9	%		70-130		EPA 524.2			2/18/14 05:24	TMP	B
4-Bromofluorobenzene (S)	74.3	%		70-130		EPA 524.2			2/18/14 05:24	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273004** Date Collected: 2/10/2014 11:15 Matrix: Water

Sample ID: **DW-004C_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	20.5	ug/L		5.0	2.2	EPA 524.2			2/16/14 00:33	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:33	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
tert-Amyl Alcohol	ND	ug/L		500	160	EPA 524.2			2/18/14 05:50	TMP	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:33	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/16/14 00:33	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:33	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:33	TMP	A
2-Butanone	12.1	ug/L		2.5	1.3	EPA 524.2			2/16/14 00:33	TMP	A
tert-Butyl Alcohol	6420	ug/L		500	140	EPA 524.2			2/18/14 05:50	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:33	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:33	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:33	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:33	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:33	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:33	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/16/14 00:33	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:33	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:33	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:33	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:33	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/16/14 00:33	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:33	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dichloroethane	11.4	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273004** Date Collected: 2/10/2014 11:15 Matrix: Water

Sample ID: **DW-004C_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:33	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:33	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:33	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:33	TMP	A
Diisopropyl ether	6.8	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/16/14 00:33	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:33	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:33	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:33	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/16/14 00:33	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/16/14 00:33	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:33	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/16/14 00:33	TMP	A
Isopropylbenzene	0.16J	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:33	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:33	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:33	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/16/14 00:33	TMP	A
Methyl t-Butyl Ether	577	ug/L		50.0	9.0	EPA 524.2			2/18/14 05:50	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/16/14 00:33	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/16/14 00:33	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/16/14 00:33	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/16/14 00:33	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/16/14 00:33	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:33	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:33	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:33	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/16/14 00:33	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:33	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071273 2014-CALVERT CITGO/5977

Lab ID: **1071273004** Date Collected: 2/10/2014 11:15 Matrix: Water

Sample ID: **DW-004C_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/16/14 00:33	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:33	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:33	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:33	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:33	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/16/14 00:33	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:33	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:33	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:33	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:33	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:33	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	75.3	%		70-130		EPA 524.2			2/16/14 00:33	TMP	A
4-Bromofluorobenzene (S)	74.3	%		70-130		EPA 524.2			2/16/14 00:33	TMP	A
1,2-Dichlorobenzene-d4 (S)	70.5	%		70-130		EPA 524.2			2/18/14 05:50	TMP	B
4-Bromofluorobenzene (S)	71.3	%		70-130		EPA 524.2			2/18/14 05:50	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

Analytical Laboratory Services, Inc. 2802

Environmental • Industrial Hygiene • Field Services

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

COC#

Co. Name: REPSG, Inc.

Contact (Report to): James Manuel Phone: 215-729-3220

Address: 6901 Kingsessing Ave. Philadelphia, PA 19142

Bill to (if different than Report to): Same PO#: 8962

Project Name/#: Calvert City 0/5977 ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. Date Required:

[ ] Rush-Subject to ALSI approval and surcharges. Approved By:

Email? [X] -Y jmanuel@repsg.com/bmaphiladelphia@repsg.com sshourds@repsg.com

Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis
1 DW-005 K	Post-filtration	2-10-14	10:20	G	DW	2
2 DW-005 J	Mid-Carbon 2	2-10-14	10:25	G	DW	2
3 DW-005 I	Mid-Carbon 1	2-10-14	10:30	G	DW	2
4 DW-005 A	Pre-filtration	2-10-14	10:35	G	DW	2
5						
6						
7						
8						

***Container Type: VOA

***Container Size: 40ml

***Preservative: HCl+ASC

ANALYSES/METHOD REQUESTED

VOCs by SW846 Including Freon Oxygenates

Receipt Information (completed by Sample Receiving)

Performed by: INITIAL HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	COC/Labels complete/accurate?	Received on ice?	(if present) Seals intact?	Custody seals Present?
N	N	N	N	N				
Y	Y	Y	Y	Y				
N	N	N	N	N				
Y	Y	Y	Y	Y				
Container in good condition?								
N								
Y								

SAMPLED BY (Please Print): Garth Makosky

LOGGED BY (signature): DATE: TIME:

REVIEWED BY (signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

SDWA Forms? ⇒ yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]

EDDs Required? [X] If yes, format type: EQUIS

Other

⇒ Enter PWSID No.

DOD Criteria Required?

ALSI FIELD SERVICES

[ ] Pickup

[ ] Labor

[ ] Composite Sampling

[ ] Rental Equipment

[ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

Pre-Filtration

			Sample ID	*DW-005A*	*DW-005A*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
1,1-Dichloroethane	**	ug/l		ND	0.29J
1,2-Dichloroethane	5	ug/l		1.9	2.5
Acetone	**	ug/l		ND	18.3
Diethyl ether	**	ug/l		ND	0.48
Isopropyl Ether	**	ug/l		1.2	2.3
Methyl ethyl ketone	**	ug/l		4.9	8.6
Methyl tert-butyl ether	20	ug/l		**185**	**249**
p-Dichlorobenzene	75	ug/l		ND	0.14
Tert-Amyl Methyl Ether	**	ug/l		2.2	ND
tert-Butylalcohol	**	ug/l		276	534

Mid-Carbon 1

			Sample ID	*DW-005I*	*DW-005I*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		9.5	11.8
Methyl ethyl ketone	**	ug/l		7.2	8.7
Methyl tert-butyl ether	20	ug/l		1.8	9.9
tert-Butylalcohol	**	ug/l		590	882
Tetrahydrofuran	**	ug/l		ND	12.6

Mid-Carbon 2

			Sample ID	*DW-005J*	*DW-005J*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		7.3	13.9
Methyl ethyl ketone	**	ug/l		ND	12.1
tert-Butylalcohol	**	ug/l		1180	1020
Tetrahydrofuran	**	ug/l		ND	9.2

Post-Carbon

			Sample ID	*DW-005K*	*DW-005K*
			Sample date	1/13/2014	2/10/2014
Compound	**EPA Std.**	**Unit**			
Acetone	**	ug/l		5.2	10.1
Carbon disulfide	**	ug/l		ND	0.27
Methyl ethyl ketone	**	ug/l		ND	7.3
tert-Butylalcohol	**	ug/l		838	1390

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

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REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Semi-Volatile Organic Compounds (SVOCs)						
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	0.29J	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	2.5	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	18.3	11.8	13.9	10.1
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	0.27J
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		0.48J	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		2.3	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		8.6	8.7	12.1	7.3
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**249**	9.9	<0.09U	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		534	882	1020	1390
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	12.6	9.2	<0.81U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2802 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 02/10/2014**

Regulatory Standard*:

EPA National Primary Drinking Water Standards: Office of Water. June 2003

Constituent	Unit	*Standard	Location:	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	02/10/2014	02/10/2014	02/10/2014	02/10/2014
			Depth (ft):	0	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		0.14J	<0.11U	<0.11U	<0.11U

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ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

February 18, 2014

Ms. Brenda MacPhail Kellogg
REPSG
6901 Kingsessing Blvd.
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1071274**
Purchase Order:	**8962**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Ms. Kellogg,

Enclosed are the analytical results for samples received by the laboratory on Tuesday, February 11, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. James Manuel

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

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SAMPLE SUMMARY

Workorder: 1071274 2014-CALVERT CITGO/5977 Discard Date: 03/04/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1071274001	DW-005K_20140210_N	Water	2/10/14 10:20	2/11/14 21:30	Customer
1071274002	DW-005J_20140210_N	Water	2/10/14 10:25	2/11/14 21:30	Customer
1071274003	DW-005I_20140210_N	Water	2/10/14 10:30	2/11/14 21:30	Customer
1071274004	DW-005A_20140210_N	Water	2/10/14 10:35	2/11/14 21:30	Customer

Workorder Comments:

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as “analyze immediately” require analysis within 15 minutes of collection. Any “analyze immediately” parameters not listed under the header “Field Parameters” are performed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J, B	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274001** Date Collected: 2/10/2014 10:20 Matrix: Water

Sample ID: **DW-005K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	10.1	ug/L		5.0	2.2	EPA 524.2			2/16/14 00:07	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:07	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/16/14 00:07	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:07	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/16/14 00:07	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:07	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:07	TMP	A
2-Butanone	7.3	ug/L		2.5	1.3	EPA 524.2			2/16/14 00:07	TMP	A
tert-Butyl Alcohol	1390	ug/L		250	70.0	EPA 524.2			2/18/14 06:16	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:07	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:07	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:07	TMP	A
Carbon Disulfide	0.27J	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:07	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/16/14 00:07	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:07	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/16/14 00:07	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:07	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:07	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:07	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:07	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/16/14 00:07	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:07	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274001** Date Collected: 2/10/2014 10:20 Matrix: Water

Sample ID: **DW-005K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:07	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:07	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:07	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:07	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/16/14 00:07	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/16/14 00:07	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:07	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/16/14 00:07	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/16/14 00:07	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/16/14 00:07	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/16/14 00:07	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/16/14 00:07	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:07	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/16/14 00:07	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:07	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/16/14 00:07	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/16/14 00:07	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/16/14 00:07	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/16/14 00:07	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/16/14 00:07	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/16/14 00:07	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/16/14 00:07	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/16/14 00:07	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/16/14 00:07	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/16/14 00:07	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/16/14 00:07	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:07	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274001** Date Collected: 2/10/2014 10:20 Matrix: Water

Sample ID: **DW-005K_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/16/14 00:07	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/16/14 00:07	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/16/14 00:07	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/16/14 00:07	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/16/14 00:07	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/16/14 00:07	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/16/14 00:07	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/16/14 00:07	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/16/14 00:07	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/16/14 00:07	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/16/14 00:07	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	79.9	%		70-130		EPA 524.2			2/16/14 00:07	TMP	A
4-Bromofluorobenzene (S)	81	%		70-130		EPA 524.2			2/16/14 00:07	TMP	A
1,2-Dichlorobenzene-d4 (S)	70.5	%		70-130		EPA 524.2			2/18/14 06:16	TMP	B
4-Bromofluorobenzene (S)	75.8	%		70-130		EPA 524.2			2/18/14 06:16	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274002** Date Collected: 2/10/2014 10:25 Matrix: Water

Sample ID: **DW-005J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	13.9	ug/L		5.0	2.2	EPA 524.2			2/15/14 23:42	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 23:42	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/15/14 23:42	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:42	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/15/14 23:42	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:42	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:42	TMP	A
2-Butanone	12.1	ug/L		2.5	1.3	EPA 524.2			2/15/14 23:42	TMP	A
tert-Butyl Alcohol	1020	ug/L		250	70.0	EPA 524.2			2/18/14 06:42	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:42	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:42	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:42	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:42	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 23:42	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:42	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/15/14 23:42	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:42	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:42	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 23:42	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:42	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/15/14 23:42	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:42	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274002** Date Collected: 2/10/2014 10:25 Matrix: Water

Sample ID: **DW-005J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:42	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:42	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:42	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 23:42	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/15/14 23:42	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 23:42	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:42	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:42	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/15/14 23:42	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/15/14 23:42	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:42	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/15/14 23:42	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:42	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 23:42	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:42	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/15/14 23:42	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			2/15/14 23:42	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/15/14 23:42	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/15/14 23:42	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/15/14 23:42	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/15/14 23:42	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/15/14 23:42	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:42	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:42	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 23:42	TMP	A
Tetrahydrofuran	9.2	ug/L		2.5	0.81	EPA 524.2			2/15/14 23:42	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:42	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274002** Date Collected: 2/10/2014 10:25 Matrix: Water

Sample ID: **DW-005J_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/15/14 23:42	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:42	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:42	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:42	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:42	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/15/14 23:42	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:42	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:42	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:42	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:42	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:42	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78	%		70-130		EPA 524.2			2/15/14 23:42	TMP	A
4-Bromofluorobenzene (S)	75.9	%		70-130		EPA 524.2			2/15/14 23:42	TMP	A
1,2-Dichlorobenzene-d4 (S)	71.3	%		70-130		EPA 524.2			2/18/14 06:42	TMP	B
4-Bromofluorobenzene (S)	73.6	%		70-130		EPA 524.2			2/18/14 06:42	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274003** Date Collected: 2/10/2014 10:30 Matrix: Water

Sample ID: **DW-005I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	11.8	ug/L		5.0	2.2	EPA 524.2			2/15/14 23:16	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 23:16	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/15/14 23:16	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:16	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/15/14 23:16	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:16	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:16	TMP	A
2-Butanone	8.7	ug/L		2.5	1.3	EPA 524.2			2/15/14 23:16	TMP	A
tert-Butyl Alcohol	882	ug/L		250	70.0	EPA 524.2			2/18/14 07:07	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:16	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:16	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:16	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:16	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 23:16	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:16	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/15/14 23:16	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:16	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:16	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 23:16	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:16	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/15/14 23:16	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:16	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274003** Date Collected: 2/10/2014 10:30 Matrix: Water

Sample ID: **DW-005I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:16	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:16	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:16	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 23:16	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/15/14 23:16	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 23:16	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:16	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 23:16	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/15/14 23:16	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/15/14 23:16	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 23:16	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/15/14 23:16	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:16	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 23:16	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:16	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/15/14 23:16	TMP	A
Methyl t-Butyl Ether	9.9	ug/L		0.50	0.090	EPA 524.2			2/15/14 23:16	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/15/14 23:16	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/15/14 23:16	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/15/14 23:16	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/15/14 23:16	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/15/14 23:16	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 23:16	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 23:16	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 23:16	TMP	A
Tetrahydrofuran	12.6	ug/L		2.5	0.81	EPA 524.2			2/15/14 23:16	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:16	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274003** Date Collected: 2/10/2014 10:30 Matrix: Water

Sample ID: **DW-005I_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/15/14 23:16	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 23:16	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 23:16	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 23:16	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 23:16	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/15/14 23:16	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 23:16	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 23:16	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 23:16	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 23:16	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 23:16	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	75.8	%		70-130		EPA 524.2			2/15/14 23:16	TMP	A
4-Bromofluorobenzene (S)	77.5	%		70-130		EPA 524.2			2/15/14 23:16	TMP	A
1,2-Dichlorobenzene-d4 (S)	71.5	%		70-130		EPA 524.2			2/18/14 07:07	TMP	B
4-Bromofluorobenzene (S)	74.5	%		70-130		EPA 524.2			2/18/14 07:07	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274004** Date Collected: 2/10/2014 10:35 Matrix: Water

Sample ID: **DW-005A_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	18.3	ug/L		5.0	2.2	EPA 524.2			2/15/14 22:50	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 22:50	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			2/15/14 22:50	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 22:50	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			2/15/14 22:50	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 22:50	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 22:50	TMP	A
2-Butanone	8.6	ug/L		2.5	1.3	EPA 524.2			2/15/14 22:50	TMP	A
tert-Butyl Alcohol	534	ug/L		100	28.0	EPA 524.2			2/18/14 07:33	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 22:50	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 22:50	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 22:50	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 22:50	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			2/15/14 22:50	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 22:50	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			2/15/14 22:50	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 22:50	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 22:50	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 22:50	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 22:50	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			2/15/14 22:50	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 22:50	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
1,4-Dichlorobenzene	0.14J	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
Dichlorodifluoromethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
1,1-Dichloroethane	0.29J	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dichloroethane	2.5	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A

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ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274004** Date Collected: 2/10/2014 10:35 Matrix: Water

Sample ID: **DW-005A_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 22:50	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 22:50	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 22:50	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 22:50	TMP	A
Diisopropyl ether	2.3	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			2/15/14 22:50	TMP	A
Ethyl Ether	0.48J	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			2/15/14 22:50	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 22:50	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			2/15/14 22:50	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			2/15/14 22:50	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			2/15/14 22:50	TMP	A
Iodomethane	ND	ug/L		0.50	0.19	EPA 524.2			2/15/14 22:50	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			2/15/14 22:50	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 22:50	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			2/15/14 22:50	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 22:50	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			2/15/14 22:50	TMP	A
Methyl t-Butyl Ether	249	ug/L		10.0	1.8	EPA 524.2			2/18/14 07:33	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			2/15/14 22:50	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			2/15/14 22:50	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			2/15/14 22:50	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			2/15/14 22:50	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			2/15/14 22:50	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			2/15/14 22:50	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			2/15/14 22:50	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			2/15/14 22:50	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			2/15/14 22:50	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 22:50	TMP	A

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 1071274 2014-CALVERT CITGO/5977

Lab ID: **1071274004** Date Collected: 2/10/2014 10:35 Matrix: Water

Sample ID: **DW-005A_20140210_N** Date Received: 2/11/2014 21:30

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			2/15/14 22:50	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			2/15/14 22:50	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			2/15/14 22:50	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			2/15/14 22:50	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			2/15/14 22:50	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			2/15/14 22:50	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			2/15/14 22:50	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			2/15/14 22:50	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			2/15/14 22:50	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			2/15/14 22:50	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			2/15/14 22:50	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.7	%		70-130		EPA 524.2			2/15/14 22:50	TMP	A
4-Bromofluorobenzene (S)	78	%		70-130		EPA 524.2			2/15/14 22:50	TMP	A
1,2-Dichlorobenzene-d4 (S)	70.3	%		70-130		EPA 524.2			2/18/14 07:33	TMP	B
4-Bromofluorobenzene (S)	71.8	%		70-130		EPA 524.2			2/18/14 07:33	TMP	B

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

Susan Scherer
Project Coordinator