REPSG
React Environmental
Professional Services Group, Inc.

January 30, 2014

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

RE: Groundwater Results
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 groundwater results and drinking water results for the Calvert Citgo Site located at 2815 Northeast Road (case NO.: 1992-2616-CE). The drinking water results for the O'Brien and Ginski Residences, located at 2802 and 2794 Northeast Road in Northeast Maryland related to case NO.: 1992-2616-CE. These results are for the January 2014 groundwater and 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

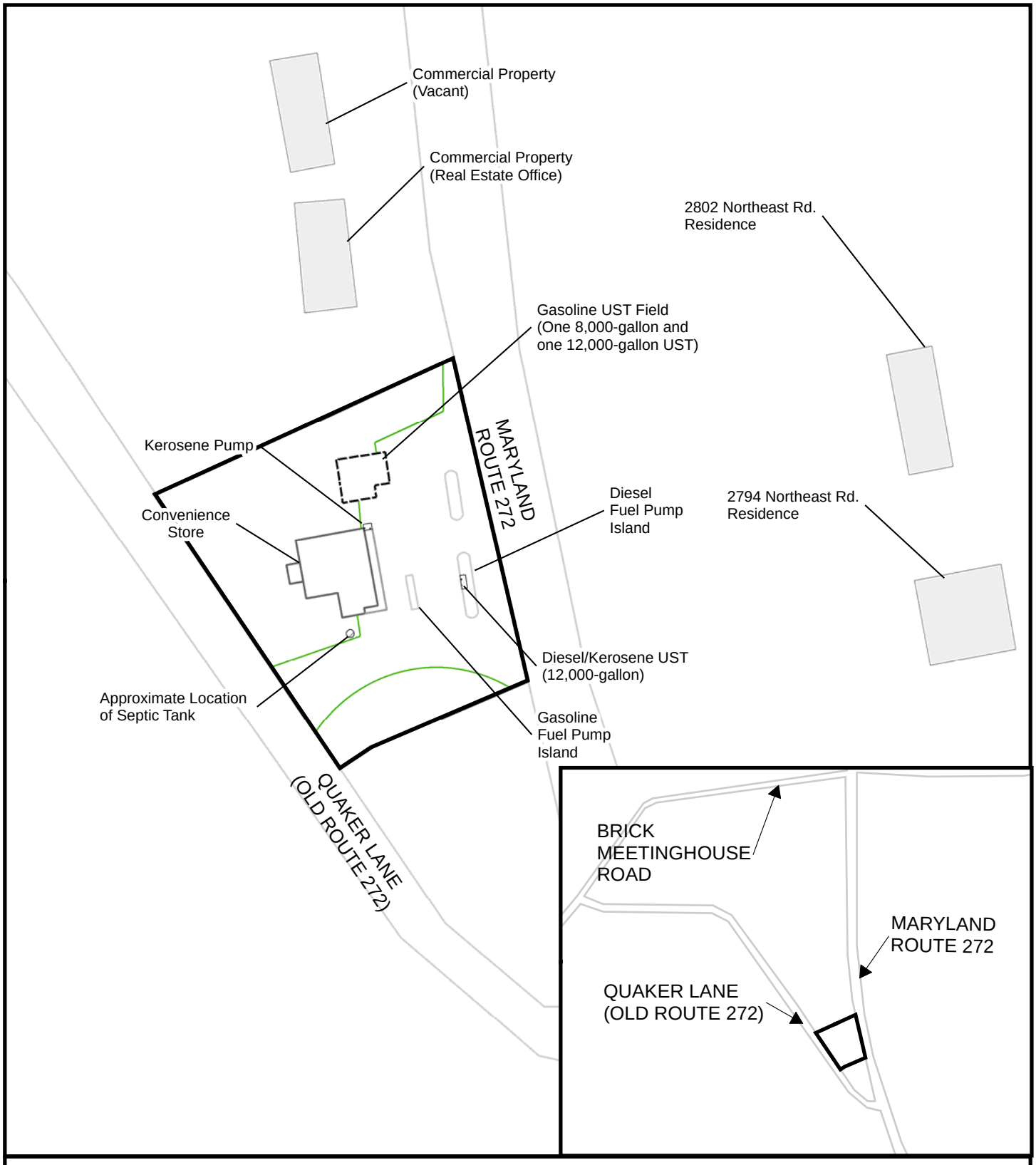

Figure 2: Site Diagram

Site Boundary

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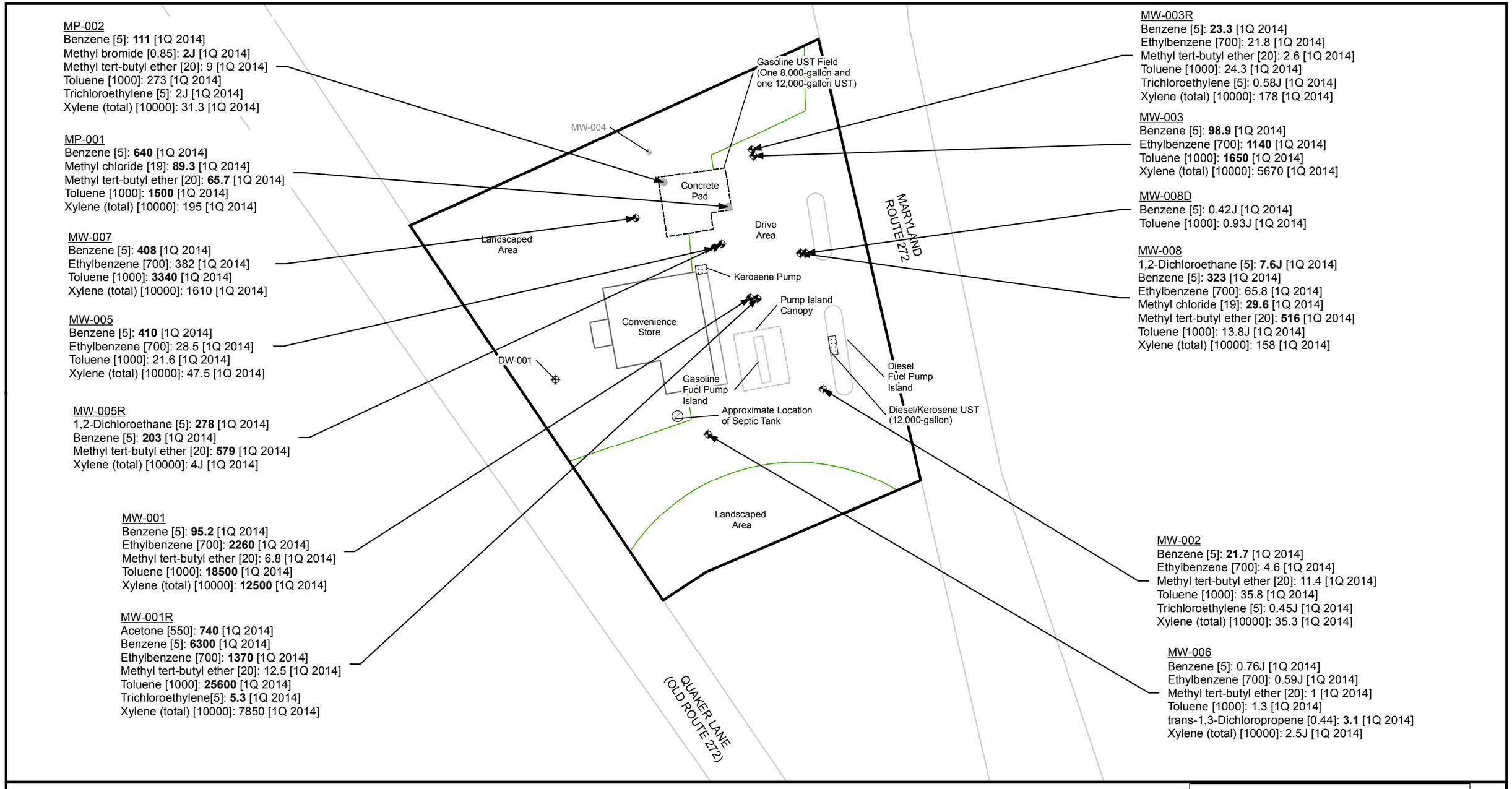
MAP SCALE: 1 inch = 100 feet
0 20 40 80 120 160
Feet

PROJECT NAME: ***CALVERT CITGO***
PROJECT ADDRESS: ***2815 NORTH EAST ROAD, NORTH EAST, MD***
PROJECT NUMBER: ***005977***
DATE: ***DECEMBER 2010***

N
S



GROUNDWATER CONTAMINANT DISTRIBUTION MAP (January 13-14, 2014)

Leak Detection Wells · Lost/Abandoned Monitoring Well · Monitoring Well · (20140113-14GW)COCs_ESRI CDM · Potable Well · Site Boundary

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MAP SCALE: 1 inch = 50 feet

0 12.5 25 50 75 100 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *JANUARY 2014*

LABEL LEGEND:

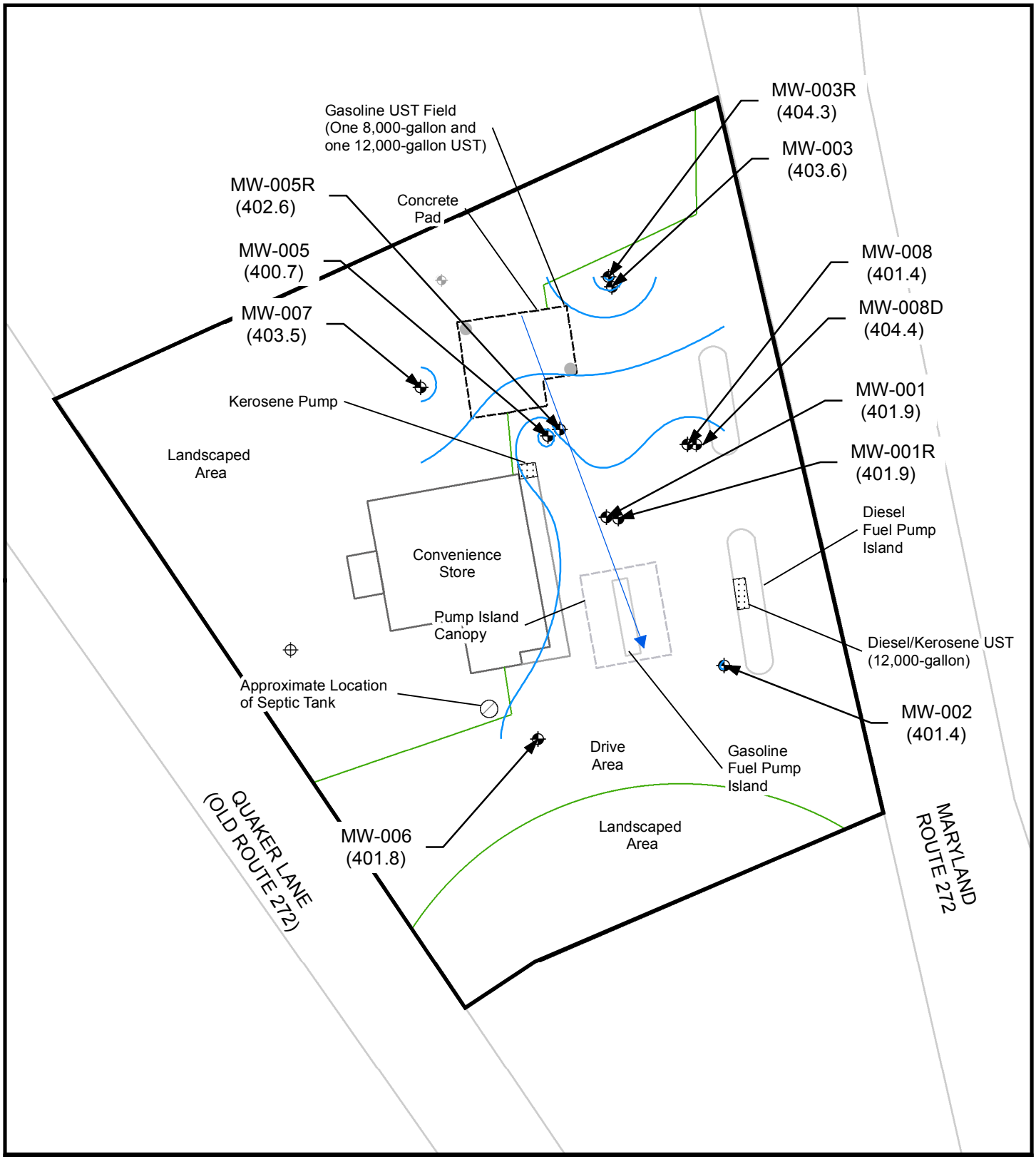
Concentration (ppb) · Sample Date

B-017
Toluene (100): **270** [2Q 2004] / ND [3Q 2004]

Groundwater Cleanup Standard (ppb)

ND - Concentration Not Detected Above Laboratory Reporting Limits
Exceedences of the Regulatory Standard Printed in bold

N
S



GROUNDWATER CONTOUR MAP (January 13-14, 2014)

MW-001
(176.01)
Site ID
Groundwater Elevation (feet above datum)

Monitoring Well (Measured)
Monitoring Well (Lost)

Groundwater Directional Flow
Leak Detection Well
Potable Well

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MAP SCALE: 1 inch = 45 feet
0 10 20 40 60 80 Feet

PROJECT NAME: *CALVERT CITGO*
PROJECT ADDRESS: *2815 NORTH EAST ROAD, NORTH EAST, MD*
PROJECT NUMBER: *005977*
DATE: *JANUARY 2014*

N
S

Analytical Laboratory Services, Inc.
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 3
Courier:
Tracking #:
COC#

Co. Name: REPSG, Inc
Contact (Report to): James Manuel
Phone: 215-729-3280
Address: 6901 Kingsessing Ave Philadelphia PA 19142
Bill to (if different than Report to): Same
PO#: 8889
Project Name/#: Galveston City 0/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] -Y jmanuel@repsg.com/bmurphail@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	***Container Type	***Container Size	*** Preservative	ANALYSES/METHOD REQUESTED: VOCs by 8260B Full Suite + Oxygenates	Enter Number of Containers Per Analysis
1 MP-001		1-13-14	1345	G	GW	VOA	40mL	HCL		3
2 MP-002		1-13-14	1240	G	GW	VOA	40mL	HCL		3
3 MW-001		1-14-14	1130	G	GW	VOA	40mL	HCL		3
4 MW-001R		1-14-14	1220	G	GW	VOA	40mL	HCL		3
5 MW-002		1-14-14	1410	G	GW	VOA	40mL	HCL		3
6 MW-003		1-13-14	1150	G	GW	VOA	40mL	HCL		3
7 MW-003R		1-13-14	1105	G	GW	VOA	40mL	HCL		3
8 MW-005		1-13-14	1140	G	GW	VOA	40mL	HCL		3

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
N	N	N	N	N	
Y	Y	Y	Y	Y	

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

SAMPLED BY (Please Print): Mike Ramani
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 REPSG	1/15/14	14:00	2 [signature]	1-15	1400
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs required? [X] If yes, format type: EQUIS
SDWA Forms?⇨ yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
⇨ Enter PWSID No.
Other
DOD Criteria Required?

ALSI FIELD SERVICES
[X] 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
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

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#: 8889
Project Name/#: Calvert Citgo/ 5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] -Y jmanuel@repsg.com / bmcphail@repsg.com
Fax? [ ] -Y No.:

ANALYSES/METHOD REQUESTED
***Container Type: VOA
**Container Size: 40ml
***Preservative: HCL
Analysis: VOC's by 8260B Including Fuel Oxygenates

Enter Number of Containers Per Analysis

#	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC's by 8260B Including Fuel Oxygenates
1	MW-005R		1-13-14	1050	G	GW	3
2	MW-006		1-13-14	1235	G	GW	3
3	MW-007		1-13-14	1300	G	GW	3
4	MW-008		1-13-14	1340	G	GW	3
5	MW-008D		1-14-14	1350	G	GW	3
6	Duplicate-001		1-14-14	—	G	GW	3
7	Field Blank-001		1-13-14	1200	G	DI	3
8	Field Blank-002		1-14-14	1212	G	DI	3

SAMPLED BY (Please Print): Mike Kumm[illegible]
LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] REPSG	1/15/14	10:00	2 [signature]	1-15	1400
3			4		
5			6		
7			8		
9			10		

Data Deliverables
[ ] Standard
[ ] CLP-like
[ ] NJ-Reduced
[ ] NJ-Full
[ ] other
EDDs Required? [X] If yes, format type: EQUIS
DOD Criteria Required?

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
Enter PWSID No.

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

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

ALSI FIELD SERVICES
[X] 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

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Courier:
Tracking #:

COC#

Co. Name: KERSG, 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#: 8889
Project Name/#: Calvert City 15977
ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] Y jmanuel@repsg.com/bmacphail@repsg.com
Fax? [ ] Y No.:

***Container Type	VOA
***Container Size	40ml
***Preservative	HCL

ANALYSES/METHOD REQUESTED: VOCs by 8260B Including Fuel Oxygenates

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 Trip Blank-001		1-13-14	—	G	OL	3
2						
3						
4						
5						
6						
7						
8						

SAMPLED BY (Please Print): Mike Famini

LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] REPSG	1/15/14	14:00	2 [signature]	1-15	1400
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?

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

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

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.

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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	01/13/2014	01/13/2014	01/14/2014	01/14/2014	01/14/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<15U#	<7.5U#	<1.5U#	<7.5U#	<1.5U#	<75U#
Dichlorofluoromethane	ug/l	**		<3.7U	<1.9U	<0.37U	<1.9U	<0.37U	<18.5U
Tert-Amyl Methyl Ether	ug/l	**		6.6J	<1U	<0.2U	<1U	<0.2U	<10U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<2.2U	<1.1U	<0.22U	<1.1U	<0.22U	<11U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<3.4U#	<1.7U#	<0.34U#	<1.7U#	<0.34U#	<17U#
1,1,2-Trichloroethane	ug/l	5		<3.3U	<1.7U	<0.33U	<1.7U	<0.33U	<16.5U#
1,1-Dichloroethane	ug/l	90		<2.8U	<1.4U	<0.28U	<1.4U	<0.28U	<14U
1,1-Dichloroethylene	ug/l	7		<2.9U	<1.5U	<0.29U	<1.5U	<0.29U	<14.5U#
1,2-Dibromoethane	ug/l	0.05		<2.8U#	<1.4U#	<0.28U#	<1.4U#	<0.28U#	<14U#
1,2-Dichloroethane	ug/l	5		<3.2U	<1.6U	<0.32U	<1.6U	<0.32U	<16U#
1,2-Dichloropropane	ug/l	5		<2.4U	<1.2U	<0.24U	<1.2U	<0.24U	<12U#
2-Hexanone	ug/l	**		<13U	<6.5U	24.3	426	<1.3U	<65U
Acetone	ug/l	550		<31U	<15.5U	<3.1U	**740**	<3.1U	<155U
Benzene	ug/l	5		**640**	**111**	**95.2**	**6300**	**21.7**	**98.9**
Bromodichloromethane	ug/l	80		<2.7U	<1.4U	<0.27U	<1.4U	<0.27U	<13.5U
Bromoform	ug/l	80		<4U	<2U	<0.4U	<2U	<0.4U	<20U
Carbon disulfide	ug/l	100		<2.3U	<1.2U	<0.23U	<1.2U	<0.23U	<11.5U
Carbon tetrachloride	ug/l	5		<3.1U	<1.6U	<0.31U	<1.6U	<0.31U	<15.5U#

** 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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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	01/13/2014	01/13/2014	01/14/2014	01/14/2014	01/14/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Chlorobenzene	ug/l	100		<1.9U	<0.95U	<0.19U	<0.95U	<0.19U	<9.5U
Chlorobromomethane	ug/l	**		<3.2U	<1.6U	<0.32U	<1.6U	<0.32U	<16U
Chloroethane	ug/l	3.6		<3.3U	<1.7U	<0.33U	<1.7U	<0.33U	<16.5U#
Chloroform	ug/l	80		<2.1U	<1.1U	<0.21U	<1.1U	<0.21U	<10.5U
cis-1,2-Dichloroethylene	ug/l	70		<3.2U	<1.6U	<0.32U	<1.6U	<0.32U	<16U
cis-1,3-Dichloropropene	ug/l	0.44		<3.1U#	<1.6U#	<0.31U	<1.6U#	<0.31U	<15.5U#
Dibromochloromethane	ug/l	80		<4.5U	<2.3U	<0.45U	<2.3U	<0.45U	<22.5U
Dichlorodifluoromethane	ug/l	**		<3.3U	<1.7U	<0.33U	<1.7U	<0.33U	<16.5U
Ethyl tert-butyl ether	ug/l	**		<1.9U	<0.95U	2.9	2.1J	<0.19U	<9.5U
Ethylbenzene	ug/l	700		<3.4U	<1.7U	**2260**	**1370**	4.6	**1140**
Isopropyl Ether	ug/l	**		96.6	14.3	<0.25U	<1.3U	<0.25U	<12.5U
m/p-xylene	ug/l	**		129	21.1	8750	5330	24.5	3660
Methyl bromide	ug/l	0.85		<3.9U#	**2J**	<0.39U	<2U#	<0.39U	<19.5U#
Methyl chloride	ug/l	19		**89.3**	<1.6U	<0.31U	<1.6U	<0.31U	<15.5U
Methyl ethyl ketone	ug/l	700		<18U	<9U	16.3	506	<1.8U	<90U
Methyl isobutylketone (MIBK)	ug/l	630		<15U	<7.5U	87.5	334	<1.5U	569
Methyl tert-butyl ether	ug/l	20		**65.7**	9	6.8	12.5	11.4	<16.5U
Methylene chloride	ug/l	5		<4.5U	<2.3U	<0.45U	<2.3U	<0.45U	<22.5U#
o-Xylene	ug/l	**		66.6	10.2	3760	2520	10.8	2010
Styrene	ug/l	100		<2.4U	<1.2U	<0.24U	<1.2U	<0.24U	<12U
Tert-Amyl alcohol	ug/l	**		782	590	645	1530	<6.6U	<330U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MP-001	MP-002	MW-001	MW-001R	MW-002	MW-003
			Date:	01/13/2014	01/13/2014	01/14/2014	01/14/2014	01/14/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Tert-Amyl Ethyl Ether	ug/l	**		<2.9U	<1.5U	<0.29U	<1.5U	<0.29U	<14.5U
tert-Butylalcohol	ug/l	**		249	125	218	549	19.8	328J
Tetrachloroethylene	ug/l	5		<3.5U	<1.8U	<0.35U	<1.8U	<0.35U	<17.5U#
Toluene	ug/l	1000		**1500**	273	**18500**	**25600**	35.8	**1650**
trans-1,2-Di-chloroethylene	ug/l	100		<2.6U	<1.3U	<0.26U	<1.3U	<0.26U	<13U
trans-1,3-Dichloropropene	ug/l	0.44		<2.9U#	<1.5U#	<0.29U	<1.5U#	<0.29U	<14.5U#
Trichloroethylene	ug/l	5		<3.3U	2J	<0.33U	**5.3**	0.45J	<16.5U#
Vinyl chloride	ug/l	2		<3U#	<1.5U	<0.3U	<1.5U	<0.3U	<15U#
Xylene (total)	ug/l	10000		195	31.3	**12500**	7850	35.3	5670

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
DBCP	ug/l	0.2		<1.5U#	<7.5U#	<7.5U#	<1.5U#	<75U#	<30U#
Dichlorofluoromethane	ug/l	**		<0.37U	<1.9U	<1.9U	<0.37U	<18.5U	<7.4U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U	<1U	<1U	<0.2U	<10U	<4U
Volatile Organic Compounds (VOCs)									
1,1,1-trichloroethane	ug/l	200		<0.22U	<1.1U	<1.1U	<0.22U	<11U	<4.4U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#	<1.7U#	<1.7U#	<0.34U#	<17U#	<6.8U#

** 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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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
1,1,2-Trichloroethane	ug/l	5		<0.33U	<1.7U	<1.7U	<0.33U	<16.5U#	<6.6U#
1,1-Dichloroethane	ug/l	90		<0.28U	<1.4U	<1.4U	<0.28U	<14U	<5.6U
1,1-Dichloroethylene	ug/l	7		<0.29U	<1.5U	<1.5U	<0.29U	<14.5U#	<5.8U
1,2-Dibromoethane	ug/l	0.05		<0.28U#	<1.4U#	<1.4U#	<0.28U#	<14U#	<5.6U#
1,2-Dichloroethane	ug/l	5		<0.32U	<1.6U	**278**	<0.32U	<16U#	**7.6J**
1,2-Dichloropropane	ug/l	5		<0.24U	<1.2U	<1.2U	<0.24U	<12U#	<4.8U
2-Hexanone	ug/l	**		<1.3U	<6.5U	<6.5U	<1.3U	<65U	<26U
Acetone	ug/l	550		<3.1U	<15.5U	<15.5U	<3.1U	<155U	<62U
Benzene	ug/l	5		**23.3**	**410**	**203**	0.76J	**408**	**323**
Bromodichloromethane	ug/l	80		<0.27U	<1.4U	<1.4U	<0.27U	<13.5U	<5.4U
Bromoform	ug/l	80		<0.4U	<2U	<2U	<0.4U	<20U	<8U
Carbon disulfide	ug/l	100		<0.23U	<1.2U	<1.2U	<0.23U	<11.5U	<4.6U
Carbon tetrachloride	ug/l	5		<0.31U	<1.6U	<1.6U	<0.31U	<15.5U#	<6.2U#
Chlorobenzene	ug/l	100		<0.19U	<0.95U	<0.95U	4.8	<9.5U	<3.8U
Chlorobromomethane	ug/l	**		<0.32U	<1.6U	<1.6U	<0.32U	<16U	<6.4U
Chloroethane	ug/l	3.6		<0.33U	<1.7U	<1.7U	<0.33U	<16.5U#	<6.6U#
Chloroform	ug/l	80		<0.21U	<1.1U	<1.1U	<0.21U	<10.5U	24.5
cis-1,2-Dichloroethylene	ug/l	70		<0.32U	<1.6U	<1.6U	<0.32U	<16U	<6.4U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U	<1.6U#	<1.6U#	<0.31U	<15.5U#	<6.2U#
Dibromochloromethane	ug/l	80		<0.45U	<2.3U	<2.3U	<0.45U	<22.5U	<9U
Dichlorodifluoromethane	ug/l	**		<0.33U	<1.7U	<1.7U	<0.33U	<16.5U	<6.6U

** No Applicable Regulatory Standard

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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Ethyl tert-butyl ether	ug/l	**		0.46J	<0.95U	<0.95U	<0.19U	<9.5U	6.5J
Ethylbenzene	ug/l	700		21.8	28.5	<1.7U	0.59J	382	65.8
Isopropyl Ether	ug/l	**		2.7	<1.3U	70.5	<0.25U	<12.5U	11.1J
m/p-xylene	ug/l	**		101	42	<2.6U	1.7J	776	103
Methyl bromide	ug/l	0.85		<0.39U	<2U#	<2U#	<0.39U	<19.5U#	<7.8U#
Methyl chloride	ug/l	19		<0.31U	<1.6U	<1.6U	<0.31U	<15.5U	**29.6**
Methyl ethyl ketone	ug/l	700		<1.8U	<9U	<9U	<1.8U	<90U	<36U
Methyl isobutylketone (MIBK)	ug/l	630		17.2	<7.5U	<7.5U	<1.5U	<75U	<30U
Methyl tert-butyl ether	ug/l	20		2.6	<1.7U	**579**	1	<16.5U	**516**
Methylene chloride	ug/l	5		<0.45U	<2.3U	2.7J	<0.45U	<22.5U#	<9U#
o-Xylene	ug/l	**		76.8	5.6	4J	0.84J	834	55.4
Styrene	ug/l	100		0.37J	<1.2U	<1.2U	<0.24U	<12U	<4.8U
Tert-Amyl alcohol	ug/l	**		123	<33U	<33U	<6.6U	<330U	<132U
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U	<1.5U	<1.5U	<0.29U	<14.5U	<5.8U
tert-Butylalcohol	ug/l	**		173	<11U	3490	<2.2U	11500	<44U
Tetrachloroethylene	ug/l	5		<0.35U	<1.8U	<1.8U	<0.35U	<17.5U#	<7U#
Toluene	ug/l	1000		24.3	21.6	<1.2U	1.3	**3340**	13.8J
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U	<1.3U	<1.3U	<0.26U	<13U	<5.2U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U	<1.5U#	<1.5U#	**3.1**	<14.5U#	<5.8U#
Trichloroethylene	ug/l	5		0.58J	<1.7U	<1.7U	<0.33U	<16.5U#	<6.6U#
Vinyl chloride	ug/l	2		<0.3U	<1.5U	<1.5U	<0.3U	<15U#	<6U#

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-003R	MW-005	MW-005R	MW-006	MW-007	MW-008
			Date:	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014	01/13/2014
			Depth (ft):	0	0	0	0	0	0
Xylene (total)	ug/l	10000		178	47.5	4J	2.5J	1610	158

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	01/14/2014
			Depth (ft):	0
Not Otherwise Specified				
DBCP	ug/l	0.2		<1.5U#
Dichlorofluoromethane	ug/l	**		<0.37U
Tert-Amyl Methyl Ether	ug/l	**		<0.2U
Volatile Organic Compounds (VOCs)				
1,1,1-trichloroethane	ug/l	200		<0.22U
1,1,2,2-Tetrachloroethane	ug/l	0.053		<0.34U#
1,1,2-Trichloroethane	ug/l	5		<0.33U
1,1-Dichloroethane	ug/l	90		<0.28U
1,1-Dichloroethylene	ug/l	7		<0.29U
1,2-Dibromoethane	ug/l	0.05		<0.28U#
1,2-Dichloroethane	ug/l	5		<0.32U
1,2-Dichloropropane	ug/l	5		<0.24U
2-Hexanone	ug/l	**		<1.3U
Acetone	ug/l	550		<3.1U

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Analytical Chemistry Report **Matrix: Water**

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Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	**Unit**	***Standard**	**Location:**	MW-008D
			Date:	01/14/2014
			Depth (ft):	0
Benzene	ug/l	5		0.42J
Bromodichloromethane	ug/l	80		<0.27U
Bromoform	ug/l	80		<0.4U
Carbon disulfide	ug/l	100		<0.23U
Carbon tetrachloride	ug/l	5		<0.31U
Chlorobenzene	ug/l	100		<0.19U
Chlorobromomethane	ug/l	**		<0.32U
Chloroethane	ug/l	3.6		<0.33U
Chloroform	ug/l	80		<0.21U
cis-1,2-Dichloroethylene	ug/l	70		<0.32U
cis-1,3-Dichloropropene	ug/l	0.44		<0.31U
Dibromochloromethane	ug/l	80		<0.45U
Dichlorodifluoromethane	ug/l	**		<0.33U
Ethyl tert-butyl ether	ug/l	**		<0.19U
Ethylbenzene	ug/l	700		<0.34U
Isopropyl Ether	ug/l	**		<0.25U
m/p-xylene	ug/l	**		<0.52U
Methyl bromide	ug/l	0.85		<0.39U
Methyl chloride	ug/l	19		<0.31U
Methyl ethyl ketone	ug/l	700		<1.8U
Methyl isobutylketone (MIBK)	ug/l	630		<1.5U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/13/2014-01/14/2014**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP): Generic Numeric Cleanup Standards for Groundwater for Type I & II Aquifers, Tables 1 and 2 (March 2008).

Constituent	Unit	*Standard	Location:	MW-008D
			Date:	01/14/2014
			Depth (ft):	0
Methyl tert-butyl ether	ug/l	20		<0.33U
Methylene chloride	ug/l	5		<0.45U
o-Xylene	ug/l	**		<0.33U
Styrene	ug/l	100		<0.24U
Tert-Amyl alcohol	ug/l	**		<6.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.29U
tert-Butylalcohol	ug/l	**		<2.2U
Tetrachloroethylene	ug/l	5		<0.35U
Toluene	ug/l	1000		0.93J
trans-1,2-Di-chloroethylene	ug/l	100		<0.26U
trans-1,3-Dichloropropene	ug/l	0.44		<0.29U
Trichloroethylene	ug/l	5		<0.33U
Vinyl chloride	ug/l	2		<0.3U
Xylene (total)	ug/l	10000		<0.66U

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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

January 22, 2014

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1067540**
Purchase Order:	**8889**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 15, 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: Ms. Brenda MacPhail Kellogg

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

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SAMPLE SUMMARY

Workorder: 1067540 2014-CALVERT CITGO/5977 Discard Date: 02/05/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1067540001	MP-001_20140113_N	Ground Water	1/13/14 13:45	1/15/14 22:00	Customer
1067540002	MP-002_20140113_N	Ground Water	1/13/14 12:40	1/15/14 22:00	Customer
1067540003	MW-001_20140114_N	Ground Water	1/14/14 11:30	1/15/14 22:00	Customer
1067540004	MW-001R_20140114_N	Ground Water	1/14/14 12:20	1/15/14 22:00	Customer
1067540005	MW-002_20140114_N	Ground Water	1/14/14 14:10	1/15/14 22:00	Customer
1067540006	MW-003_20140113_N	Ground Water	1/13/14 11:50	1/15/14 22:00	Customer
1067540007	MW-003R_20140113_N	Ground Water	1/13/14 11:05	1/15/14 22:00	Customer
1067540008	MW-005_20140113_N	Ground Water	1/13/14 11:40	1/15/14 22:00	Customer
1067540009	MW-005R_20140113_N	Ground Water	1/13/14 10:50	1/15/14 22:00	Customer
1067540010	MW-006_20140113_N	Ground Water	1/13/14 12:35	1/15/14 22:00	Customer
1067540011	MW-007_20140113_N	Ground Water	1/13/14 13:00	1/15/14 22:00	Customer
1067540012	MW-008_20140113_N	Ground Water	1/13/14 13:40	1/15/14 22:00	Customer
1067540013	MW-008D_20140114_N	Ground Water	1/14/14 13:50	1/15/14 22:00	Customer
1067540014	Duplicate-001_20140114_FD	Ground Water	1/14/14 00:00	1/15/14 22:00	Customer
1067540015	Field Blank-001_20140113_FB	Ground Water	1/13/14 12:00	1/15/14 22:00	Customer
1067540016	Field Blank-002_20140114_FB	Ground Water	1/14/14 12:12	1/15/14 22:00	Customer
1067540017	Trip Blank_20140113_TB	Ground Water	1/13/14 00:00	1/15/14 22:00	Customer

Workorder Comments:

ALS Environmental

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SAMPLE SUMMARY

Workorder: 1067540 2014-CALVERT CITGO/5977 Discard Date: 02/05/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By

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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540001** Date Collected: 1/13/2014 13:45 Matrix: Ground Water

Sample ID: **MP-001_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		100	31.0	SW846 8260B			1/17/14 19:18	JPA	A
tert-Amyl methyl ether	6.6J	ug/L		10.0	2.0	SW846 8260B			1/17/14 19:18	JPA	A
tert-Amyl Alcohol	782	ug/L		100	66.0	SW846 8260B			1/17/14 19:18	JPA	A
tert-Amyl Ethylether	ND	ug/L		10.0	2.9	SW846 8260B			1/17/14 19:18	JPA	A
Benzene	640	ug/L		10.0	2.3	SW846 8260B			1/17/14 19:18	JPA	A
Bromochloromethane	ND	ug/L		10.0	3.2	SW846 8260B			1/17/14 19:18	JPA	A
Bromodichloromethane	ND	ug/L		10.0	2.7	SW846 8260B			1/17/14 19:18	JPA	A
Bromoform	ND	ug/L		10.0	4.0	SW846 8260B			1/17/14 19:18	JPA	A
Bromomethane	ND	ug/L		10.0	3.9	SW846 8260B			1/17/14 19:18	JPA	A
2-Butanone	ND	ug/L		100	18.0	SW846 8260B			1/17/14 19:18	JPA	A
tert-Butyl Alcohol	249	ug/L		100	22.0	SW846 8260B			1/17/14 19:18	JPA	A
Carbon Disulfide	ND	ug/L		10.0	2.3	SW846 8260B			1/17/14 19:18	JPA	A
Carbon Tetrachloride	ND	ug/L		10.0	3.1	SW846 8260B			1/17/14 19:18	JPA	A
Chlorobenzene	ND	ug/L		10.0	1.9	SW846 8260B			1/17/14 19:18	JPA	A
Chlorodibromomethane	ND	ug/L		10.0	4.5	SW846 8260B			1/17/14 19:18	JPA	A
Chloroethane	ND	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
Chloroform	ND	ug/L		10.0	2.1	SW846 8260B			1/17/14 19:18	JPA	A
Chloromethane	89.3	ug/L		10.0	3.1	SW846 8260B			1/17/14 19:18	JPA	A
1,2-Dibromo-3-chloropropane	ND	ug/L		70.0	15.0	SW846 8260B			1/17/14 19:18	JPA	A
1,2-Dibromoethane	ND	ug/L		10.0	2.8	SW846 8260B			1/17/14 19:18	JPA	A
Dichlorodifluoromethane	ND	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
1,1-Dichloroethane	ND	ug/L		10.0	2.8	SW846 8260B			1/17/14 19:18	JPA	A
1,2-Dichloroethane	ND	ug/L		10.0	3.2	SW846 8260B			1/17/14 19:18	JPA	A
1,1-Dichloroethene	ND	ug/L		10.0	2.9	SW846 8260B			1/17/14 19:18	JPA	A
cis-1,2-Dichloroethene	ND	ug/L		10.0	3.2	SW846 8260B			1/17/14 19:18	JPA	A
trans-1,2-Dichloroethene	ND	ug/L		10.0	2.6	SW846 8260B			1/17/14 19:18	JPA	A
Dichlorofluoromethane	ND	ug/L		10.0	3.7	SW846 8260B			1/17/14 19:18	JPA	A
1,2-Dichloropropane	ND	ug/L		10.0	2.4	SW846 8260B			1/17/14 19:18	JPA	A
cis-1,3-Dichloropropene	ND	ug/L		10.0	3.1	SW846 8260B			1/17/14 19:18	JPA	A
trans-1,3-Dichloropropene	ND	ug/L		10.0	2.9	SW846 8260B			1/17/14 19:18	JPA	A
Diisopropyl ether	96.6	ug/L		10.0	2.5	SW846 8260B			1/17/14 19:18	JPA	A
Ethyl tert-butyl ether	ND	ug/L		10.0	1.9	SW846 8260B			1/17/14 19:18	JPA	A
Ethylbenzene	ND	ug/L		10.0	3.4	SW846 8260B			1/17/14 19:18	JPA	A
2-Hexanone	ND	ug/L		50.0	13.0	SW846 8260B			1/17/14 19:18	JPA	A
Methyl t-Butyl Ether	65.7	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		50.0	15.0	SW846 8260B			1/17/14 19:18	JPA	A
Methylene Chloride	ND	ug/L		10.0	4.5	SW846 8260B			1/17/14 19:18	JPA	A
Styrene	ND	ug/L		10.0	2.4	SW846 8260B			1/17/14 19:18	JPA	A
1,1,2,2-Tetrachloroethane	ND	ug/L		10.0	3.4	SW846 8260B			1/17/14 19:18	JPA	A
Tetrachloroethene	ND	ug/L		10.0	3.5	SW846 8260B			1/17/14 19:18	JPA	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540001** Date Collected: 1/13/2014 13:45 Matrix: Ground Water

Sample ID: **MP-001_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	1500	ug/L		10.0	2.3	SW846 8260B			1/17/14 19:18	JPA	A
Total Xylenes	195	ug/L		30.0	6.6	SW846 8260B			1/17/14 19:18	JPA	A
1,1,1-Trichloroethane	ND	ug/L		10.0	2.2	SW846 8260B			1/17/14 19:18	JPA	A
1,1,2-Trichloroethane	ND	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
Trichloroethene	ND	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
Vinyl Chloride	ND	ug/L		10.0	3.0	SW846 8260B			1/17/14 19:18	JPA	A
o-Xylene	66.6	ug/L		10.0	3.3	SW846 8260B			1/17/14 19:18	JPA	A
mp-Xylene	129	ug/L		20.0	5.2	SW846 8260B			1/17/14 19:18	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.2	%		62-133		SW846 8260B			1/17/14 19:18	JPA	A
4-Bromofluorobenzene (S)	104	%		79-114		SW846 8260B			1/17/14 19:18	JPA	A
Dibromofluoromethane (S)	80.5	%		78-116		SW846 8260B			1/17/14 19:18	JPA	A
Toluene-d8 (S)	92.5	%		76-127		SW846 8260B			1/17/14 19:18	JPA	A

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540002** Date Collected: 1/13/2014 12:40 Matrix: Ground Water

Sample ID: **MP-002_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			1/16/14 19:20	CJG	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			1/16/14 19:20	CJG	A
tert-Amyl Alcohol	590	ug/L		50.0	33.0	SW846 8260B			1/16/14 19:20	CJG	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:20	CJG	A
Benzene	111	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:20	CJG	A
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:20	CJG	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:20	CJG	A
Bromomethane	2.0J	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:20	CJG	A
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			1/16/14 19:20	CJG	A
tert-Butyl Alcohol	125	ug/L		50.0	11.0	SW846 8260B			1/16/14 19:20	CJG	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:20	CJG	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:20	CJG	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:20	CJG	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:20	CJG	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			1/16/14 19:20	CJG	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:20	CJG	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:20	CJG	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:20	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:20	CJG	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			1/16/14 19:20	CJG	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:20	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:20	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:20	CJG	A
Diisopropyl ether	14.3	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:20	CJG	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:20	CJG	A
Ethylbenzene	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			1/16/14 19:20	CJG	A
Methyl t-Butyl Ether	9.0	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			1/16/14 19:20	CJG	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:20	CJG	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:20	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			1/16/14 19:20	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540002** Date Collected: 1/13/2014 12:40 Matrix: Ground Water

Sample ID: **MP-002_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	273	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:20	CJG	A
Total Xylenes	31.3	ug/L		15.0	3.3	SW846 8260B			1/16/14 19:20	CJG	A
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:20	CJG	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
Trichloroethene	2.0J	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:20	CJG	A
o-Xylene	10.2	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:20	CJG	A
mp-Xylene	21.1	ug/L		10.0	2.6	SW846 8260B			1/16/14 19:20	CJG	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	90	%		62-133		SW846 8260B			1/16/14 19:20	CJG	A
4-Bromofluorobenzene (S)	99.9	%		79-114		SW846 8260B			1/16/14 19:20	CJG	A
Dibromofluoromethane (S)	78.2	%		78-116		SW846 8260B			1/16/14 19:20	CJG	A
Toluene-d8 (S)	88.9	%		76-127		SW846 8260B			1/16/14 19:20	CJG	A

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540003** Date Collected: 1/14/2014 11:30 Matrix: Ground Water

Sample ID: **MW-001_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			1/16/14 15:38	CJG	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/16/14 15:38	CJG	A
tert-Amyl Alcohol	645	ug/L		10.0	6.6	SW846 8260B			1/16/14 15:38	CJG	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 15:38	CJG	A
Benzene	95.2	ug/L		1.0	0.23	SW846 8260B			1/16/14 15:38	CJG	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 15:38	CJG	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/16/14 15:38	CJG	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/16/14 15:38	CJG	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/16/14 15:38	CJG	A
2-Butanone	16.3	ug/L		10.0	1.8	SW846 8260B			1/16/14 15:38	CJG	A
tert-Butyl Alcohol	218	ug/L		10.0	2.2	SW846 8260B			1/16/14 15:38	CJG	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 15:38	CJG	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 15:38	CJG	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 15:38	CJG	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 15:38	CJG	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 15:38	CJG	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/16/14 15:38	CJG	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 15:38	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/16/14 15:38	CJG	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 15:38	CJG	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 15:38	CJG	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 15:38	CJG	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 15:38	CJG	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 15:38	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 15:38	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/16/14 15:38	CJG	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/16/14 15:38	CJG	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 15:38	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 15:38	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 15:38	CJG	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/16/14 15:38	CJG	A
Ethyl tert-butyl ether	2.9	ug/L		1.0	0.19	SW846 8260B			1/16/14 15:38	CJG	A
Ethylbenzene	2260	ug/L		100	34.0	SW846 8260B			1/17/14 19:36	JPA	A
2-Hexanone	24.3	ug/L		5.0	1.3	SW846 8260B			1/16/14 15:38	CJG	A
Methyl t-Butyl Ether	6.8	ug/L		1.0	0.33	SW846 8260B			1/16/14 15:38	CJG	A
4-Methyl-2-Pentanone(MIBK)	87.5	ug/L		5.0	1.5	SW846 8260B			1/16/14 15:38	CJG	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 15:38	CJG	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 15:38	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 15:38	CJG	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/16/14 15:38	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540003** Date Collected: 1/14/2014 11:30 Matrix: Ground Water

Sample ID: **MW-001_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	18500	ug/L		100	23.0	SW846 8260B			1/17/14 19:36	JPA	A
Total Xylenes	12500	ug/L		300	66.0	SW846 8260B			1/17/14 19:36	JPA	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/16/14 15:38	CJG	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 15:38	CJG	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 15:38	CJG	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/16/14 15:38	CJG	A
o-Xylene	3760	ug/L		100	33.0	SW846 8260B			1/17/14 19:36	JPA	A
mp-Xylene	8750	ug/L		200	52.0	SW846 8260B			1/17/14 19:36	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	104	%		62-133		SW846 8260B			1/16/14 15:38	CJG	A
4-Bromofluorobenzene (S)	94.2	%		79-114		SW846 8260B			1/16/14 15:38	CJG	A
Dibromofluoromethane (S)	65.4	%	1	78-116		SW846 8260B			1/16/14 15:38	CJG	A
Toluene-d8 (S)	82.4	%		76-127		SW846 8260B			1/16/14 15:38	CJG	A
1,2-Dichloroethane-d4 (S)	93.9	%		62-133		SW846 8260B			1/17/14 19:36	JPA	A
4-Bromofluorobenzene (S)	100	%		79-114		SW846 8260B			1/17/14 19:36	JPA	A
Dibromofluoromethane (S)	82.3	%		78-116		SW846 8260B			1/17/14 19:36	JPA	A
Toluene-d8 (S)	89.8	%		76-127		SW846 8260B			1/17/14 19:36	JPA	A

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540004** Date Collected: 1/14/2014 12:20 Matrix: Ground Water

Sample ID: **MW-001R_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	740	ug/L		50.0	15.5	SW846 8260B			1/16/14 19:38	CJG	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			1/16/14 19:38	CJG	A
tert-Amyl Alcohol	1530	ug/L		50.0	33.0	SW846 8260B			1/16/14 19:38	CJG	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:38	CJG	A
Benzene	6300	ug/L		500	115	SW846 8260B			1/21/14 01:54	DD	D
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:38	CJG	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:38	CJG	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:38	CJG	A
2-Butanone	506	ug/L		50.0	9.0	SW846 8260B			1/16/14 19:38	CJG	A
tert-Butyl Alcohol	549	ug/L		50.0	11.0	SW846 8260B			1/16/14 19:38	CJG	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:38	CJG	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:38	CJG	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:38	CJG	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:38	CJG	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			1/16/14 19:38	CJG	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:38	CJG	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:38	CJG	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:38	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:38	CJG	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			1/16/14 19:38	CJG	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:38	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:38	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:38	CJG	A
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:38	CJG	A
Ethyl tert-butyl ether	2.1J	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:38	CJG	A
Ethylbenzene	1370	ug/L		500	170	SW846 8260B			1/21/14 01:54	DD	D
2-Hexanone	426	ug/L		25.0	6.5	SW846 8260B			1/16/14 19:38	CJG	A
Methyl t-Butyl Ether	12.5	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
4-Methyl-2-Pentanone(MIBK)	334	ug/L		25.0	7.5	SW846 8260B			1/16/14 19:38	CJG	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:38	CJG	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:38	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			1/16/14 19:38	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540004** Date Collected: 1/14/2014 12:20 Matrix: Ground Water

Sample ID: **MW-001R_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	25600	ug/L		500	115	SW846 8260B			1/21/14 01:54	DD	D
Total Xylenes	7850	ug/L		1500	330	SW846 8260B			1/21/14 01:54	DD	D
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:38	CJG	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
Trichloroethene	5.3	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:38	CJG	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:38	CJG	A
o-Xylene	2520	ug/L		500	165	SW846 8260B			1/21/14 01:54	DD	D
mp-Xylene	5330	ug/L		1000	260	SW846 8260B			1/21/14 01:54	DD	D
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	89.4	%		62-133		SW846 8260B			1/16/14 19:38	CJG	A
4-Bromofluorobenzene (S)	92.5	%		79-114		SW846 8260B			1/16/14 19:38	CJG	A
Dibromofluoromethane (S)	73.6	%	2	78-116		SW846 8260B			1/16/14 19:38	CJG	A
Toluene-d8 (S)	81.5	%		76-127		SW846 8260B			1/16/14 19:38	CJG	A
1,2-Dichloroethane-d4 (S)	86.5	%		62-133		SW846 8260B			1/21/14 01:54	DD	D
4-Bromofluorobenzene (S)	112	%		79-114		SW846 8260B			1/21/14 01:54	DD	D
Dibromofluoromethane (S)	84.8	%		78-116		SW846 8260B			1/21/14 01:54	DD	D
Toluene-d8 (S)	99.5	%		76-127		SW846 8260B			1/21/14 01:54	DD	D

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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540005** Date Collected: 1/14/2014 14:10 Matrix: Ground Water

Sample ID: **MW-002_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			1/17/14 12:44	JPA	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/17/14 12:44	JPA	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			1/17/14 12:44	JPA	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 12:44	JPA	A
Benzene	21.7	ug/L		1.0	0.23	SW846 8260B			1/17/14 12:44	JPA	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 12:44	JPA	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/17/14 12:44	JPA	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/17/14 12:44	JPA	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/17/14 12:44	JPA	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/17/14 12:44	JPA	A
tert-Butyl Alcohol	19.8	ug/L		10.0	2.2	SW846 8260B			1/17/14 12:44	JPA	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/17/14 12:44	JPA	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 12:44	JPA	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/17/14 12:44	JPA	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 12:44	JPA	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/17/14 12:44	JPA	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 12:44	JPA	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/17/14 12:44	JPA	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 12:44	JPA	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 12:44	JPA	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 12:44	JPA	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 12:44	JPA	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 12:44	JPA	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/17/14 12:44	JPA	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/17/14 12:44	JPA	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/17/14 12:44	JPA	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 12:44	JPA	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 12:44	JPA	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/17/14 12:44	JPA	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/17/14 12:44	JPA	A
Ethylbenzene	4.6	ug/L		1.0	0.34	SW846 8260B			1/17/14 12:44	JPA	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/17/14 12:44	JPA	A
Methyl t-Butyl Ether	11.4	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/17/14 12:44	JPA	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 12:44	JPA	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/17/14 12:44	JPA	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/17/14 12:44	JPA	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/17/14 12:44	JPA	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540005** Date Collected: 1/14/2014 14:10 Matrix: Ground Water

Sample ID: **MW-002_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	35.8	ug/L		1.0	0.23	SW846 8260B			1/17/14 12:44	JPA	A
Total Xylenes	35.3	ug/L		3.0	0.66	SW846 8260B			1/17/14 12:44	JPA	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/17/14 12:44	JPA	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
Trichloroethene	0.45J	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/17/14 12:44	JPA	A
o-Xylene	10.8	ug/L		1.0	0.33	SW846 8260B			1/17/14 12:44	JPA	A
mp-Xylene	24.5	ug/L		2.0	0.52	SW846 8260B			1/17/14 12:44	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.3	%		62-133		SW846 8260B			1/17/14 12:44	JPA	A
4-Bromofluorobenzene (S)	103	%		79-114		SW846 8260B			1/17/14 12:44	JPA	A
Dibromofluoromethane (S)	80.4	%		78-116		SW846 8260B			1/17/14 12:44	JPA	A
Toluene-d8 (S)	91.7	%		76-127		SW846 8260B			1/17/14 12:44	JPA	A

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540006** Date Collected: 1/13/2014 11:50 Matrix: Ground Water

Sample ID: **MW-003_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		500	155	SW846 8260B			1/16/14 21:21	CJG	A
tert-Amyl methyl ether	ND	ug/L		50.0	10.0	SW846 8260B			1/16/14 21:21	CJG	A
tert-Amyl Alcohol	ND	ug/L		500	330	SW846 8260B			1/16/14 21:21	CJG	A
tert-Amyl Ethylether	ND	ug/L		50.0	14.5	SW846 8260B			1/16/14 21:21	CJG	A
Benzene	98.9	ug/L		50.0	11.5	SW846 8260B			1/16/14 21:21	CJG	A
Bromochloromethane	ND	ug/L		50.0	16.0	SW846 8260B			1/16/14 21:21	CJG	A
Bromodichloromethane	ND	ug/L		50.0	13.5	SW846 8260B			1/16/14 21:21	CJG	A
Bromoform	ND	ug/L		50.0	20.0	SW846 8260B			1/16/14 21:21	CJG	A
Bromomethane	ND	ug/L		50.0	19.5	SW846 8260B			1/16/14 21:21	CJG	A
2-Butanone	ND	ug/L		500	90.0	SW846 8260B			1/16/14 21:21	CJG	A
tert-Butyl Alcohol	328J	ug/L		500	110	SW846 8260B			1/16/14 21:21	CJG	A
Carbon Disulfide	ND	ug/L		50.0	11.5	SW846 8260B			1/16/14 21:21	CJG	A
Carbon Tetrachloride	ND	ug/L		50.0	15.5	SW846 8260B			1/16/14 21:21	CJG	A
Chlorobenzene	ND	ug/L		50.0	9.5	SW846 8260B			1/16/14 21:21	CJG	A
Chlorodibromomethane	ND	ug/L		50.0	22.5	SW846 8260B			1/16/14 21:21	CJG	A
Chloroethane	ND	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
Chloroform	ND	ug/L		50.0	10.5	SW846 8260B			1/16/14 21:21	CJG	A
Chloromethane	ND	ug/L		50.0	15.5	SW846 8260B			1/16/14 21:21	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		350	75.0	SW846 8260B			1/16/14 21:21	CJG	A
1,2-Dibromoethane	ND	ug/L		50.0	14.0	SW846 8260B			1/16/14 21:21	CJG	A
Dichlorodifluoromethane	ND	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
1,1-Dichloroethane	ND	ug/L		50.0	14.0	SW846 8260B			1/16/14 21:21	CJG	A
1,2-Dichloroethane	ND	ug/L		50.0	16.0	SW846 8260B			1/16/14 21:21	CJG	A
1,1-Dichloroethene	ND	ug/L		50.0	14.5	SW846 8260B			1/16/14 21:21	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		50.0	16.0	SW846 8260B			1/16/14 21:21	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		50.0	13.0	SW846 8260B			1/16/14 21:21	CJG	A
Dichlorofluoromethane	ND	ug/L		50.0	18.5	SW846 8260B			1/16/14 21:21	CJG	A
1,2-Dichloropropane	ND	ug/L		50.0	12.0	SW846 8260B			1/16/14 21:21	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		50.0	15.5	SW846 8260B			1/16/14 21:21	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		50.0	14.5	SW846 8260B			1/16/14 21:21	CJG	A
Diisopropyl ether	ND	ug/L		50.0	12.5	SW846 8260B			1/16/14 21:21	CJG	A
Ethyl tert-butyl ether	ND	ug/L		50.0	9.5	SW846 8260B			1/16/14 21:21	CJG	A
Ethylbenzene	1140	ug/L		50.0	17.0	SW846 8260B			1/16/14 21:21	CJG	A
2-Hexanone	ND	ug/L		250	65.0	SW846 8260B			1/16/14 21:21	CJG	A
Methyl t-Butyl Ether	ND	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
4-Methyl-2-Pentanone(MIBK)	569	ug/L		250	75.0	SW846 8260B			1/16/14 21:21	CJG	A
Methylene Chloride	ND	ug/L		50.0	22.5	SW846 8260B			1/16/14 21:21	CJG	A
Styrene	ND	ug/L		50.0	12.0	SW846 8260B			1/16/14 21:21	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		50.0	17.0	SW846 8260B			1/16/14 21:21	CJG	A
Tetrachloroethene	ND	ug/L		50.0	17.5	SW846 8260B			1/16/14 21:21	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540006** Date Collected: 1/13/2014 11:50 Matrix: Ground Water

Sample ID: **MW-003_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	1650	ug/L		50.0	11.5	SW846 8260B			1/16/14 21:21	CJG	A
Total Xylenes	5670	ug/L		150	33.0	SW846 8260B			1/16/14 21:21	CJG	A
1,1,1-Trichloroethane	ND	ug/L		50.0	11.0	SW846 8260B			1/16/14 21:21	CJG	A
1,1,2-Trichloroethane	ND	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
Trichloroethene	ND	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
Vinyl Chloride	ND	ug/L		50.0	15.0	SW846 8260B			1/16/14 21:21	CJG	A
o-Xylene	2010	ug/L		50.0	16.5	SW846 8260B			1/16/14 21:21	CJG	A
mp-Xylene	3660	ug/L		100	26.0	SW846 8260B			1/16/14 21:21	CJG	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	82.9	%		62-133		SW846 8260B			1/16/14 21:21	CJG	A
4-Bromofluorobenzene (S)	101	%		79-114		SW846 8260B			1/16/14 21:21	CJG	A
Dibromofluoromethane (S)	78	%		78-116		SW846 8260B			1/16/14 21:21	CJG	A
Toluene-d8 (S)	93.3	%		76-127		SW846 8260B			1/16/14 21:21	CJG	A

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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540007** Date Collected: 1/13/2014 11:05 Matrix: Ground Water

Sample ID: **MW-003R_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			1/17/14 13:01	JPA	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/17/14 13:01	JPA	A
tert-Amyl Alcohol	123	ug/L		10.0	6.6	SW846 8260B			1/17/14 13:01	JPA	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:01	JPA	A
Benzene	23.3	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:01	JPA	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:01	JPA	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/17/14 13:01	JPA	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/17/14 13:01	JPA	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/17/14 13:01	JPA	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/17/14 13:01	JPA	A
tert-Butyl Alcohol	173	ug/L		10.0	2.2	SW846 8260B			1/17/14 13:01	JPA	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:01	JPA	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:01	JPA	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/17/14 13:01	JPA	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 13:01	JPA	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/17/14 13:01	JPA	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:01	JPA	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/17/14 13:01	JPA	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 13:01	JPA	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 13:01	JPA	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:01	JPA	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:01	JPA	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:01	JPA	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/17/14 13:01	JPA	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/17/14 13:01	JPA	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/17/14 13:01	JPA	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:01	JPA	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:01	JPA	A
Diisopropyl ether	2.7	ug/L		1.0	0.25	SW846 8260B			1/17/14 13:01	JPA	A
Ethyl tert-butyl ether	0.46J	ug/L		1.0	0.19	SW846 8260B			1/17/14 13:01	JPA	A
Ethylbenzene	21.8	ug/L		1.0	0.34	SW846 8260B			1/17/14 13:01	JPA	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/17/14 13:01	JPA	A
Methyl t-Butyl Ether	2.6	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
4-Methyl-2-Pentanone(MIBK)	17.2	ug/L		5.0	1.5	SW846 8260B			1/17/14 13:01	JPA	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 13:01	JPA	A
Styrene	0.37J	ug/L		1.0	0.24	SW846 8260B			1/17/14 13:01	JPA	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/17/14 13:01	JPA	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/17/14 13:01	JPA	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540007** Date Collected: 1/13/2014 11:05 Matrix: Ground Water

Sample ID: **MW-003R_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	24.3	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:01	JPA	A
Total Xylenes	178	ug/L		3.0	0.66	SW846 8260B			1/17/14 13:01	JPA	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/17/14 13:01	JPA	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
Trichloroethene	0.58J	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/17/14 13:01	JPA	A
o-Xylene	76.8	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:01	JPA	A
mp-Xylene	101	ug/L		2.0	0.52	SW846 8260B			1/17/14 13:01	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.5	%		62-133		SW846 8260B			1/17/14 13:01	JPA	A
4-Bromofluorobenzene (S)	96.2	%		79-114		SW846 8260B			1/17/14 13:01	JPA	A
Dibromofluoromethane (S)	79.6	%		78-116		SW846 8260B			1/17/14 13:01	JPA	A
Toluene-d8 (S)	94.5	%		76-127		SW846 8260B			1/17/14 13:01	JPA	A

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540008** Date Collected: 1/13/2014 11:40 Matrix: Ground Water

Sample ID: **MW-005_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			1/20/14 20:04	GLQ	D
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			1/20/14 20:04	GLQ	D
tert-Amyl Alcohol	ND	ug/L	3	50.0	33.0	SW846 8260B			1/20/14 20:04	GLQ	D
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:04	GLQ	D
Benzene	410	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:04	GLQ	D
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:04	GLQ	D
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			1/20/14 20:04	GLQ	D
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			1/20/14 20:04	GLQ	D
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			1/20/14 20:04	GLQ	D
tert-Butyl Alcohol	ND	ug/L		50.0	11.0	SW846 8260B			1/20/14 20:04	GLQ	D
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:04	GLQ	D
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			1/20/14 20:04	GLQ	D
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			1/20/14 20:04	GLQ	D
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			1/20/14 20:04	GLQ	D
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			1/20/14 20:04	GLQ	D
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:04	GLQ	D
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:04	GLQ	D
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:04	GLQ	D
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			1/20/14 20:04	GLQ	D
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			1/20/14 20:04	GLQ	D
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:04	GLQ	D
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:04	GLQ	D
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:04	GLQ	D
Diisopropyl ether	ND	ug/L		5.0	1.3	SW846 8260B			1/20/14 20:04	GLQ	D
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			1/20/14 20:04	GLQ	D
Ethylbenzene	28.5	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			1/20/14 20:04	GLQ	D
Methyl t-Butyl Ether	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			1/20/14 20:04	GLQ	D
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			1/20/14 20:04	GLQ	D
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:04	GLQ	D
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			1/20/14 20:04	GLQ	D

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540008** Date Collected: 1/13/2014 11:40 Matrix: Ground Water

Sample ID: **MW-005_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	21.6	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:04	GLQ	D
Total Xylenes	47.5	ug/L		15.0	3.3	SW846 8260B			1/20/14 20:04	GLQ	D
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			1/20/14 20:04	GLQ	D
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:04	GLQ	D
o-Xylene	5.6	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:04	GLQ	D
mp-Xylene	42.0	ug/L		10.0	2.6	SW846 8260B			1/20/14 20:04	GLQ	D
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.2	%		62-133		SW846 8260B			1/20/14 20:04	GLQ	D
4-Bromofluorobenzene (S)	84.9	%		79-114		SW846 8260B			1/20/14 20:04	GLQ	D
Dibromofluoromethane (S)	84.5	%		78-116		SW846 8260B			1/20/14 20:04	GLQ	D
Toluene-d8 (S)	76.2	%		76-127		SW846 8260B			1/20/14 20:04	GLQ	D

Sample Comments:

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

Susan Scherer
Project Coordinator

ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540009** Date Collected: 1/13/2014 10:50 Matrix: Ground Water

Sample ID: **MW-005R_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		50.0	15.5	SW846 8260B			1/20/14 20:38	GLQ	B
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			1/20/14 20:38	GLQ	B
tert-Amyl Alcohol	ND	ug/L	3	50.0	33.0	SW846 8260B			1/20/14 20:38	GLQ	B
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:38	GLQ	B
Benzene	203	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:38	GLQ	B
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:38	GLQ	B
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			1/20/14 20:38	GLQ	B
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			1/20/14 20:38	GLQ	B
2-Butanone	ND	ug/L		50.0	9.0	SW846 8260B			1/20/14 20:38	GLQ	B
tert-Butyl Alcohol	3490	ug/L		500	110	SW846 8260B			1/22/14 14:41	TMP	C
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:38	GLQ	B
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			1/20/14 20:38	GLQ	B
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			1/20/14 20:38	GLQ	B
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			1/20/14 20:38	GLQ	B
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			1/20/14 20:38	GLQ	B
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:38	GLQ	B
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			1/20/14 20:38	GLQ	B
1,2-Dichloroethane	278	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:38	GLQ	B
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			1/20/14 20:38	GLQ	B
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			1/20/14 20:38	GLQ	B
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:38	GLQ	B
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			1/20/14 20:38	GLQ	B
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:38	GLQ	B
Diisopropyl ether	70.5	ug/L		5.0	1.3	SW846 8260B			1/20/14 20:38	GLQ	B
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			1/20/14 20:38	GLQ	B
Ethylbenzene	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
2-Hexanone	ND	ug/L		25.0	6.5	SW846 8260B			1/20/14 20:38	GLQ	B
Methyl t-Butyl Ether	579	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		25.0	7.5	SW846 8260B			1/20/14 20:38	GLQ	B
Methylene Chloride	2.7J	ug/L		5.0	2.3	SW846 8260B			1/20/14 20:38	GLQ	B
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:38	GLQ	B
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			1/20/14 20:38	GLQ	B

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540009** Date Collected: 1/13/2014 10:50 Matrix: Ground Water

Sample ID: **MW-005R_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		5.0	1.2	SW846 8260B			1/20/14 20:38	GLQ	B
Total Xylenes	4.0J	ug/L		15.0	3.3	SW846 8260B			1/20/14 20:38	GLQ	B
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			1/20/14 20:38	GLQ	B
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
Trichloroethene	ND	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 20:38	GLQ	B
o-Xylene	4.0J	ug/L		5.0	1.7	SW846 8260B			1/20/14 20:38	GLQ	B
mp-Xylene	ND	ug/L		10.0	2.6	SW846 8260B			1/20/14 20:38	GLQ	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111	%		62-133		SW846 8260B			1/20/14 20:38	GLQ	B
4-Bromofluorobenzene (S)	91.3	%		79-114		SW846 8260B			1/20/14 20:38	GLQ	B
Dibromofluoromethane (S)	100	%		78-116		SW846 8260B			1/20/14 20:38	GLQ	B
Toluene-d8 (S)	84.4	%		76-127		SW846 8260B			1/20/14 20:38	GLQ	B
1,2-Dichloroethane-d4 (S)	103	%		62-133		SW846 8260B			1/22/14 14:41	TMP	C
4-Bromofluorobenzene (S)	107	%		79-114		SW846 8260B			1/22/14 14:41	TMP	C
Dibromofluoromethane (S)	86.1	%		78-116		SW846 8260B			1/22/14 14:41	TMP	C
Toluene-d8 (S)	98.2	%		76-127		SW846 8260B			1/22/14 14:41	TMP	C

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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540010** Date Collected: 1/13/2014 12:35 Matrix: Ground Water

Sample ID: **MW-006_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			1/17/14 13:18	JPA	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/17/14 13:18	JPA	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			1/17/14 13:18	JPA	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:18	JPA	A
Benzene	0.76J	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:18	JPA	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:18	JPA	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/17/14 13:18	JPA	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/17/14 13:18	JPA	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/17/14 13:18	JPA	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/17/14 13:18	JPA	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			1/17/14 13:18	JPA	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:18	JPA	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:18	JPA	A
Chlorobenzene	4.8	ug/L		1.0	0.19	SW846 8260B			1/17/14 13:18	JPA	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 13:18	JPA	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/17/14 13:18	JPA	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:18	JPA	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/17/14 13:18	JPA	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 13:18	JPA	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/17/14 13:18	JPA	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:18	JPA	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:18	JPA	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/17/14 13:18	JPA	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/17/14 13:18	JPA	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/17/14 13:18	JPA	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/17/14 13:18	JPA	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/17/14 13:18	JPA	A
trans-1,3-Dichloropropene	3.1	ug/L		1.0	0.29	SW846 8260B			1/17/14 13:18	JPA	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/17/14 13:18	JPA	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/17/14 13:18	JPA	A
Ethylbenzene	0.59J	ug/L		1.0	0.34	SW846 8260B			1/17/14 13:18	JPA	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/17/14 13:18	JPA	A
Methyl t-Butyl Ether	1.0	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/17/14 13:18	JPA	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/17/14 13:18	JPA	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/17/14 13:18	JPA	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/17/14 13:18	JPA	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/17/14 13:18	JPA	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540010** Date Collected: 1/13/2014 12:35 Matrix: Ground Water

Sample ID: **MW-006_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	1.3	ug/L		1.0	0.23	SW846 8260B			1/17/14 13:18	JPA	A
Total Xylenes	2.5J	ug/L		3.0	0.66	SW846 8260B			1/17/14 13:18	JPA	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/17/14 13:18	JPA	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/17/14 13:18	JPA	A
o-Xylene	0.84J	ug/L		1.0	0.33	SW846 8260B			1/17/14 13:18	JPA	A
mp-Xylene	1.7J	ug/L		2.0	0.52	SW846 8260B			1/17/14 13:18	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	93.4	%		62-133		SW846 8260B			1/17/14 13:18	JPA	A
4-Bromofluorobenzene (S)	106	%		79-114		SW846 8260B			1/17/14 13:18	JPA	A
Dibromofluoromethane (S)	80.1	%		78-116		SW846 8260B			1/17/14 13:18	JPA	A
Toluene-d8 (S)	91.3	%		76-127		SW846 8260B			1/17/14 13:18	JPA	A

Sample Comments:

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540011** Date Collected: 1/13/2014 13:00 Matrix: Ground Water

Sample ID: **MW-007_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		500	155	SW846 8260B			1/20/14 21:11	GLQ	B
tert-Amyl methyl ether	ND	ug/L		50.0	10.0	SW846 8260B			1/20/14 21:11	GLQ	B
tert-Amyl Alcohol	ND	ug/L	3	500	330	SW846 8260B			1/20/14 21:11	GLQ	B
tert-Amyl Ethylether	ND	ug/L		50.0	14.5	SW846 8260B			1/20/14 21:11	GLQ	B
Benzene	408	ug/L		50.0	11.5	SW846 8260B			1/20/14 21:11	GLQ	B
Bromochloromethane	ND	ug/L		50.0	16.0	SW846 8260B			1/20/14 21:11	GLQ	B
Bromodichloromethane	ND	ug/L		50.0	13.5	SW846 8260B			1/20/14 21:11	GLQ	B
Bromoform	ND	ug/L		50.0	20.0	SW846 8260B			1/20/14 21:11	GLQ	B
Bromomethane	ND	ug/L		50.0	19.5	SW846 8260B			1/20/14 21:11	GLQ	B
2-Butanone	ND	ug/L		500	90.0	SW846 8260B			1/20/14 21:11	GLQ	B
tert-Butyl Alcohol	11500	ug/L		500	110	SW846 8260B			1/20/14 21:11	GLQ	B
Carbon Disulfide	ND	ug/L		50.0	11.5	SW846 8260B			1/20/14 21:11	GLQ	B
Carbon Tetrachloride	ND	ug/L		50.0	15.5	SW846 8260B			1/20/14 21:11	GLQ	B
Chlorobenzene	ND	ug/L		50.0	9.5	SW846 8260B			1/20/14 21:11	GLQ	B
Chlorodibromomethane	ND	ug/L		50.0	22.5	SW846 8260B			1/20/14 21:11	GLQ	B
Chloroethane	ND	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
Chloroform	ND	ug/L		50.0	10.5	SW846 8260B			1/20/14 21:11	GLQ	B
Chloromethane	ND	ug/L		50.0	15.5	SW846 8260B			1/20/14 21:11	GLQ	B
1,2-Dibromo-3-chloropropane	ND	ug/L		350	75.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,2-Dibromoethane	ND	ug/L		50.0	14.0	SW846 8260B			1/20/14 21:11	GLQ	B
Dichlorodifluoromethane	ND	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
1,1-Dichloroethane	ND	ug/L		50.0	14.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,2-Dichloroethane	ND	ug/L		50.0	16.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,1-Dichloroethene	ND	ug/L		50.0	14.5	SW846 8260B			1/20/14 21:11	GLQ	B
cis-1,2-Dichloroethene	ND	ug/L		50.0	16.0	SW846 8260B			1/20/14 21:11	GLQ	B
trans-1,2-Dichloroethene	ND	ug/L		50.0	13.0	SW846 8260B			1/20/14 21:11	GLQ	B
Dichlorofluoromethane	ND	ug/L		50.0	18.5	SW846 8260B			1/20/14 21:11	GLQ	B
1,2-Dichloropropane	ND	ug/L		50.0	12.0	SW846 8260B			1/20/14 21:11	GLQ	B
cis-1,3-Dichloropropene	ND	ug/L		50.0	15.5	SW846 8260B			1/20/14 21:11	GLQ	B
trans-1,3-Dichloropropene	ND	ug/L		50.0	14.5	SW846 8260B			1/20/14 21:11	GLQ	B
Diisopropyl ether	ND	ug/L		50.0	12.5	SW846 8260B			1/20/14 21:11	GLQ	B
Ethyl tert-butyl ether	ND	ug/L		50.0	9.5	SW846 8260B			1/20/14 21:11	GLQ	B
Ethylbenzene	382	ug/L		50.0	17.0	SW846 8260B			1/20/14 21:11	GLQ	B
2-Hexanone	ND	ug/L		250	65.0	SW846 8260B			1/20/14 21:11	GLQ	B
Methyl t-Butyl Ether	ND	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		250	75.0	SW846 8260B			1/20/14 21:11	GLQ	B
Methylene Chloride	ND	ug/L		50.0	22.5	SW846 8260B			1/20/14 21:11	GLQ	B
Styrene	ND	ug/L		50.0	12.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,1,2,2-Tetrachloroethane	ND	ug/L		50.0	17.0	SW846 8260B			1/20/14 21:11	GLQ	B
Tetrachloroethene	ND	ug/L		50.0	17.5	SW846 8260B			1/20/14 21:11	GLQ	B

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540011** Date Collected: 1/13/2014 13:00 Matrix: Ground Water

Sample ID: **MW-007_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	3340	ug/L		50.0	11.5	SW846 8260B			1/20/14 21:11	GLQ	B
Total Xylenes	1610	ug/L		150	33.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,1,1-Trichloroethane	ND	ug/L		50.0	11.0	SW846 8260B			1/20/14 21:11	GLQ	B
1,1,2-Trichloroethane	ND	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
Trichloroethene	ND	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
Vinyl Chloride	ND	ug/L		50.0	15.0	SW846 8260B			1/20/14 21:11	GLQ	B
o-Xylene	834	ug/L		50.0	16.5	SW846 8260B			1/20/14 21:11	GLQ	B
mp-Xylene	776	ug/L		100	26.0	SW846 8260B			1/20/14 21:11	GLQ	B
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111	%		62-133		SW846 8260B			1/20/14 21:11	GLQ	B
4-Bromofluorobenzene (S)	89.5	%		79-114		SW846 8260B			1/20/14 21:11	GLQ	B
Dibromofluoromethane (S)	97.4	%		78-116		SW846 8260B			1/20/14 21:11	GLQ	B
Toluene-d8 (S)	80.7	%		76-127		SW846 8260B			1/20/14 21:11	GLQ	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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540012** Date Collected: 1/13/2014 13:40 Matrix: Ground Water

Sample ID: **MW-008_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		200	62.0	SW846 8260B			1/21/14 13:55	JPA	A
tert-Amyl methyl ether	ND	ug/L		20.0	4.0	SW846 8260B			1/21/14 13:55	JPA	A
tert-Amyl Alcohol	ND	ug/L	5	200	132	SW846 8260B			1/21/14 13:55	JPA	A
tert-Amyl Ethylether	ND	ug/L		20.0	5.8	SW846 8260B			1/21/14 13:55	JPA	A
Benzene	323	ug/L		20.0	4.6	SW846 8260B			1/21/14 13:55	JPA	A
Bromochloromethane	ND	ug/L		20.0	6.4	SW846 8260B			1/21/14 13:55	JPA	A
Bromodichloromethane	ND	ug/L		20.0	5.4	SW846 8260B			1/21/14 13:55	JPA	A
Bromoform	ND	ug/L		20.0	8.0	SW846 8260B			1/21/14 13:55	JPA	A
Bromomethane	ND	ug/L		20.0	7.8	SW846 8260B			1/21/14 13:55	JPA	A
2-Butanone	ND	ug/L		200	36.0	SW846 8260B			1/21/14 13:55	JPA	A
tert-Butyl Alcohol	ND	ug/L		200	44.0	SW846 8260B			1/21/14 13:55	JPA	A
Carbon Disulfide	ND	ug/L		20.0	4.6	SW846 8260B			1/21/14 13:55	JPA	A
Carbon Tetrachloride	ND	ug/L		20.0	6.2	SW846 8260B			1/21/14 13:55	JPA	A
Chlorobenzene	ND	ug/L		20.0	3.8	SW846 8260B			1/21/14 13:55	JPA	A
Chlorodibromomethane	ND	ug/L		20.0	9.0	SW846 8260B			1/21/14 13:55	JPA	A
Chloroethane	ND	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
Chloroform	24.5	ug/L		20.0	4.2	SW846 8260B			1/21/14 13:55	JPA	A
Chloromethane	29.6	ug/L		20.0	6.2	SW846 8260B			1/21/14 13:55	JPA	A
1,2-Dibromo-3-chloropropane	ND	ug/L		140	30.0	SW846 8260B			1/21/14 13:55	JPA	A
1,2-Dibromoethane	ND	ug/L		20.0	5.6	SW846 8260B			1/21/14 13:55	JPA	A
Dichlorodifluoromethane	ND	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
1,1-Dichloroethane	ND	ug/L		20.0	5.6	SW846 8260B			1/21/14 13:55	JPA	A
1,2-Dichloroethane	7.6J	ug/L		20.0	6.4	SW846 8260B			1/21/14 13:55	JPA	A
1,1-Dichloroethene	ND	ug/L		20.0	5.8	SW846 8260B			1/21/14 13:55	JPA	A
cis-1,2-Dichloroethene	ND	ug/L		20.0	6.4	SW846 8260B			1/21/14 13:55	JPA	A
trans-1,2-Dichloroethene	ND	ug/L		20.0	5.2	SW846 8260B			1/21/14 13:55	JPA	A
Dichlorofluoromethane	ND	ug/L		20.0	7.4	SW846 8260B			1/21/14 13:55	JPA	A
1,2-Dichloropropane	ND	ug/L		20.0	4.8	SW846 8260B			1/21/14 13:55	JPA	A
cis-1,3-Dichloropropene	ND	ug/L		20.0	6.2	SW846 8260B			1/21/14 13:55	JPA	A
trans-1,3-Dichloropropene	ND	ug/L		20.0	5.8	SW846 8260B			1/21/14 13:55	JPA	A
Diisopropyl ether	11.1J	ug/L		20.0	5.0	SW846 8260B			1/21/14 13:55	JPA	A
Ethyl tert-butyl ether	6.5J	ug/L		20.0	3.8	SW846 8260B			1/21/14 13:55	JPA	A
Ethylbenzene	65.8	ug/L		20.0	6.8	SW846 8260B			1/21/14 13:55	JPA	A
2-Hexanone	ND	ug/L		100	26.0	SW846 8260B			1/21/14 13:55	JPA	A
Methyl t-Butyl Ether	516	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		100	30.0	SW846 8260B			1/21/14 13:55	JPA	A
Methylene Chloride	ND	ug/L		20.0	9.0	SW846 8260B			1/21/14 13:55	JPA	A
Styrene	ND	ug/L		20.0	4.8	SW846 8260B			1/21/14 13:55	JPA	A
1,1,2,2-Tetrachloroethane	ND	ug/L		20.0	6.8	SW846 8260B			1/21/14 13:55	JPA	A
Tetrachloroethene	ND	ug/L		20.0	7.0	SW846 8260B			1/21/14 13:55	JPA	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540012** Date Collected: 1/13/2014 13:40 Matrix: Ground Water

Sample ID: **MW-008_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	13.8J	ug/L		20.0	4.6	SW846 8260B			1/21/14 13:55	JPA	A
Total Xylenes	158	ug/L		60.0	13.2	SW846 8260B			1/21/14 13:55	JPA	A
1,1,1-Trichloroethane	ND	ug/L		20.0	4.4	SW846 8260B			1/21/14 13:55	JPA	A
1,1,2-Trichloroethane	ND	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
Trichloroethene	ND	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
Vinyl Chloride	ND	ug/L		20.0	6.0	SW846 8260B			1/21/14 13:55	JPA	A
o-Xylene	55.4	ug/L		20.0	6.6	SW846 8260B			1/21/14 13:55	JPA	A
mp-Xylene	103	ug/L		40.0	10.4	SW846 8260B			1/21/14 13:55	JPA	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.5	%		62-133		SW846 8260B			1/21/14 13:55	JPA	A
4-Bromofluorobenzene (S)	114	%		79-114		SW846 8260B			1/21/14 13:55	JPA	A
Dibromofluoromethane (S)	93.4	%		78-116		SW846 8260B			1/21/14 13:55	JPA	A
Toluene-d8 (S)	111	%		76-127		SW846 8260B			1/21/14 13:55	JPA	A

Sample Comments:

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540013** Date Collected: 1/14/2014 13:50 Matrix: Ground Water

Sample ID: **MW-008D_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		10.0	3.1	SW846 8260B			1/20/14 21:45	GLQ	C
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/20/14 21:45	GLQ	C
tert-Amyl Alcohol	ND	ug/L	3	10.0	6.6	SW846 8260B			1/20/14 21:45	GLQ	C
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/20/14 21:45	GLQ	C
Benzene	0.42J	ug/L		1.0	0.23	SW846 8260B			1/20/14 21:45	GLQ	C
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/20/14 21:45	GLQ	C
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/20/14 21:45	GLQ	C
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/20/14 21:45	GLQ	C
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/20/14 21:45	GLQ	C
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/20/14 21:45	GLQ	C
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			1/20/14 21:45	GLQ	C
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/20/14 21:45	GLQ	C
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/20/14 21:45	GLQ	C
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/20/14 21:45	GLQ	C
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/20/14 21:45	GLQ	C
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/20/14 21:45	GLQ	C
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/20/14 21:45	GLQ	C
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/20/14 21:45	GLQ	C
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/20/14 21:45	GLQ	C
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/20/14 21:45	GLQ	C
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/20/14 21:45	GLQ	C
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/20/14 21:45	GLQ	C
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/20/14 21:45	GLQ	C
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/20/14 21:45	GLQ	C
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/20/14 21:45	GLQ	C
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/20/14 21:45	GLQ	C
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/20/14 21:45	GLQ	C
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/20/14 21:45	GLQ	C
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/20/14 21:45	GLQ	C
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/20/14 21:45	GLQ	C
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			1/20/14 21:45	GLQ	C
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/20/14 21:45	GLQ	C
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/20/14 21:45	GLQ	C
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/20/14 21:45	GLQ	C
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/20/14 21:45	GLQ	C
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/20/14 21:45	GLQ	C
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/20/14 21:45	GLQ	C

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540013** Date Collected: 1/14/2014 13:50 Matrix: Ground Water

Sample ID: **MW-008D_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	0.93J	ug/L		1.0	0.23	SW846 8260B			1/20/14 21:45	GLQ	C
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			1/20/14 21:45	GLQ	C
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/20/14 21:45	GLQ	C
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/20/14 21:45	GLQ	C
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			1/20/14 21:45	GLQ	C
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			1/20/14 21:45	GLQ	C
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115	%		62-133		SW846 8260B			1/20/14 21:45	GLQ	C
4-Bromofluorobenzene (S)	86.1	%		79-114		SW846 8260B			1/20/14 21:45	GLQ	C
Dibromofluoromethane (S)	96.9	%		78-116		SW846 8260B			1/20/14 21:45	GLQ	C
Toluene-d8 (S)	85.5	%		76-127		SW846 8260B			1/20/14 21:45	GLQ	C

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540014** Date Collected: 1/14/2014 00:00 Matrix: Ground Water

Sample ID: **Duplicate-001_20140114_FD** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	698	ug/L		50.0	15.5	SW846 8260B			1/16/14 19:55	CJG	A
tert-Amyl methyl ether	ND	ug/L		5.0	1.0	SW846 8260B			1/16/14 19:55	CJG	A
tert-Amyl Alcohol	1450	ug/L		50.0	33.0	SW846 8260B			1/16/14 19:55	CJG	A
tert-Amyl Ethylether	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:55	CJG	A
Benzene	6270	ug/L		500	115	SW846 8260B			1/21/14 02:11	DD	D
Bromochloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
Bromodichloromethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:55	CJG	A
Bromoform	ND	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:55	CJG	A
Bromomethane	ND	ug/L		5.0	2.0	SW846 8260B			1/16/14 19:55	CJG	A
2-Butanone	504	ug/L		50.0	9.0	SW846 8260B			1/16/14 19:55	CJG	A
tert-Butyl Alcohol	503	ug/L		50.0	11.0	SW846 8260B			1/16/14 19:55	CJG	A
Carbon Disulfide	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:55	CJG	A
Carbon Tetrachloride	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
Chlorobenzene	ND	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:55	CJG	A
Chlorodibromomethane	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:55	CJG	A
Chloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
Chloroform	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:55	CJG	A
Chloromethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		35.0	7.5	SW846 8260B			1/16/14 19:55	CJG	A
1,2-Dibromoethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:55	CJG	A
Dichlorodifluoromethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
1,1-Dichloroethane	ND	ug/L		5.0	1.4	SW846 8260B			1/16/14 19:55	CJG	A
1,2-Dichloroethane	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
1,1-Dichloroethene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:55	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:55	CJG	A
Dichlorofluoromethane	ND	ug/L		5.0	1.9	SW846 8260B			1/16/14 19:55	CJG	A
1,2-Dichloropropane	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:55	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		5.0	1.6	SW846 8260B			1/16/14 19:55	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:55	CJG	A
Diisopropyl ether	5.3	ug/L		5.0	1.3	SW846 8260B			1/16/14 19:55	CJG	A
Ethyl tert-butyl ether	ND	ug/L		5.0	0.95	SW846 8260B			1/16/14 19:55	CJG	A
Ethylbenzene	1360	ug/L		500	170	SW846 8260B			1/21/14 02:11	DD	D
2-Hexanone	424	ug/L		25.0	6.5	SW846 8260B			1/16/14 19:55	CJG	A
Methyl t-Butyl Ether	12.1	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
4-Methyl-2-Pentanone(MIBK)	334	ug/L		25.0	7.5	SW846 8260B			1/16/14 19:55	CJG	A
Methylene Chloride	ND	ug/L		5.0	2.3	SW846 8260B			1/16/14 19:55	CJG	A
Styrene	ND	ug/L		5.0	1.2	SW846 8260B			1/16/14 19:55	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
Tetrachloroethene	ND	ug/L		5.0	1.8	SW846 8260B			1/16/14 19:55	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540014** Date Collected: 1/14/2014 00:00 Matrix: Ground Water

Sample ID: **Duplicate-001_20140114_FD** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	26700	ug/L		500	115	SW846 8260B			1/21/14 02:11	DD	D
Total Xylenes	8090	ug/L		1500	330	SW846 8260B			1/21/14 02:11	DD	D
1,1,1-Trichloroethane	ND	ug/L		5.0	1.1	SW846 8260B			1/16/14 19:55	CJG	A
1,1,2-Trichloroethane	ND	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
Trichloroethene	4.7J	ug/L		5.0	1.7	SW846 8260B			1/16/14 19:55	CJG	A
Vinyl Chloride	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 19:55	CJG	A
o-Xylene	2550	ug/L		500	165	SW846 8260B			1/21/14 02:11	DD	D
mp-Xylene	5540	ug/L		1000	260	SW846 8260B			1/21/14 02:11	DD	D
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	80.4	%		62-133		SW846 8260B			1/16/14 19:55	CJG	A
4-Bromofluorobenzene (S)	98.8	%		79-114		SW846 8260B			1/16/14 19:55	CJG	A
Dibromofluoromethane (S)	73.5	%	6	78-116		SW846 8260B			1/16/14 19:55	CJG	A
Toluene-d8 (S)	93.8	%		76-127		SW846 8260B			1/16/14 19:55	CJG	A
1,2-Dichloroethane-d4 (S)	87.9	%		62-133		SW846 8260B			1/21/14 02:11	DD	D
4-Bromofluorobenzene (S)	110	%		79-114		SW846 8260B			1/21/14 02:11	DD	D
Dibromofluoromethane (S)	83.7	%		78-116		SW846 8260B			1/21/14 02:11	DD	D
Toluene-d8 (S)	98.2	%		76-127		SW846 8260B			1/21/14 02:11	DD	D

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: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540015** Date Collected: 1/13/2014 12:00 Matrix: Ground Water

Sample ID: **Field Blank-001_20140113_FB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	41.9	ug/L		10.0	3.1	SW846 8260B			1/16/14 13:56	CJG	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/16/14 13:56	CJG	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			1/16/14 13:56	CJG	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 13:56	CJG	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 13:56	CJG	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 13:56	CJG	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/16/14 13:56	CJG	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/16/14 13:56	CJG	A
Bromomethane	ND	ug/L		1.0	0.39	SW846 8260B			1/16/14 13:56	CJG	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/16/14 13:56	CJG	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			1/16/14 13:56	CJG	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 13:56	CJG	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 13:56	CJG	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 13:56	CJG	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 13:56	CJG	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/16/14 13:56	CJG	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 13:56	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/16/14 13:56	CJG	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 13:56	CJG	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 13:56	CJG	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 13:56	CJG	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 13:56	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 13:56	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/16/14 13:56	CJG	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/16/14 13:56	CJG	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 13:56	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 13:56	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 13:56	CJG	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/16/14 13:56	CJG	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 13:56	CJG	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 13:56	CJG	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 13:56	CJG	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 13:56	CJG	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 13:56	CJG	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 13:56	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 13:56	CJG	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/16/14 13:56	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540015** Date Collected: 1/13/2014 12:00 Matrix: Ground Water

Sample ID: **Field Blank-001_20140113_FB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 13:56	CJG	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			1/16/14 13:56	CJG	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/16/14 13:56	CJG	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/16/14 13:56	CJG	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 13:56	CJG	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			1/16/14 13:56	CJG	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.4	%		62-133		SW846 8260B			1/16/14 13:56	CJG	A
4-Bromofluorobenzene (S)	103	%		79-114		SW846 8260B			1/16/14 13:56	CJG	A
Dibromofluoromethane (S)	84.1	%		78-116		SW846 8260B			1/16/14 13:56	CJG	A
Toluene-d8 (S)	87	%		76-127		SW846 8260B			1/16/14 13:56	CJG	A

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540016** Date Collected: 1/14/2014 12:12 Matrix: Ground Water

Sample ID: **Field Blank-002_20140114_FB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	37.5	ug/L		10.0	3.1	SW846 8260B			1/16/14 14:13	CJG	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/16/14 14:13	CJG	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			1/16/14 14:13	CJG	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:13	CJG	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:13	CJG	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:13	CJG	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/16/14 14:13	CJG	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/16/14 14:13	CJG	A
Bromomethane	0.43J	ug/L		1.0	0.39	SW846 8260B			1/16/14 14:13	CJG	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/16/14 14:13	CJG	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			1/16/14 14:13	CJG	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:13	CJG	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:13	CJG	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 14:13	CJG	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 14:13	CJG	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/16/14 14:13	CJG	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:13	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/16/14 14:13	CJG	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 14:13	CJG	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 14:13	CJG	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:13	CJG	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:13	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:13	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/16/14 14:13	CJG	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/16/14 14:13	CJG	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 14:13	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:13	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:13	CJG	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/16/14 14:13	CJG	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 14:13	CJG	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 14:13	CJG	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 14:13	CJG	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 14:13	CJG	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 14:13	CJG	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 14:13	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 14:13	CJG	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/16/14 14:13	CJG	A

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540016** Date Collected: 1/14/2014 12:12 Matrix: Ground Water

Sample ID: **Field Blank-002_20140114_FB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:13	CJG	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			1/16/14 14:13	CJG	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/16/14 14:13	CJG	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/16/14 14:13	CJG	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:13	CJG	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			1/16/14 14:13	CJG	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	101	%		62-133		SW846 8260B			1/16/14 14:13	CJG	A
4-Bromofluorobenzene (S)	105	%		79-114		SW846 8260B			1/16/14 14:13	CJG	A
Dibromofluoromethane (S)	84.6	%		78-116		SW846 8260B			1/16/14 14:13	CJG	A
Toluene-d8 (S)	92.8	%		76-127		SW846 8260B			1/16/14 14:13	CJG	A

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540017** Date Collected: 1/13/2014 00:00 Matrix: Ground Water

Sample ID: **Trip Blank_20140113_TB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	40.0	ug/L		10.0	3.1	SW846 8260B			1/16/14 14:30	CJG	A
tert-Amyl methyl ether	ND	ug/L		1.0	0.20	SW846 8260B			1/16/14 14:30	CJG	A
tert-Amyl Alcohol	ND	ug/L		10.0	6.6	SW846 8260B			1/16/14 14:30	CJG	A
tert-Amyl Ethylether	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:30	CJG	A
Benzene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:30	CJG	A
Bromochloromethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:30	CJG	A
Bromodichloromethane	ND	ug/L		1.0	0.27	SW846 8260B			1/16/14 14:30	CJG	A
Bromoform	ND	ug/L		1.0	0.40	SW846 8260B			1/16/14 14:30	CJG	A
Bromomethane	0.43J	ug/L		1.0	0.39	SW846 8260B			1/16/14 14:30	CJG	A
2-Butanone	ND	ug/L		10.0	1.8	SW846 8260B			1/16/14 14:30	CJG	A
tert-Butyl Alcohol	ND	ug/L		10.0	2.2	SW846 8260B			1/16/14 14:30	CJG	A
Carbon Disulfide	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:30	CJG	A
Carbon Tetrachloride	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:30	CJG	A
Chlorobenzene	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 14:30	CJG	A
Chlorodibromomethane	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 14:30	CJG	A
Chloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
Chloroform	ND	ug/L		1.0	0.21	SW846 8260B			1/16/14 14:30	CJG	A
Chloromethane	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:30	CJG	A
1,2-Dibromo-3-chloropropane	ND	ug/L		7.0	1.5	SW846 8260B			1/16/14 14:30	CJG	A
1,2-Dibromoethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 14:30	CJG	A
Dichlorodifluoromethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
1,1-Dichloroethane	ND	ug/L		1.0	0.28	SW846 8260B			1/16/14 14:30	CJG	A
1,2-Dichloroethane	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:30	CJG	A
1,1-Dichloroethene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:30	CJG	A
cis-1,2-Dichloroethene	ND	ug/L		1.0	0.32	SW846 8260B			1/16/14 14:30	CJG	A
trans-1,2-Dichloroethene	ND	ug/L		1.0	0.26	SW846 8260B			1/16/14 14:30	CJG	A
Dichlorofluoromethane	ND	ug/L		1.0	0.37	SW846 8260B			1/16/14 14:30	CJG	A
1,2-Dichloropropane	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 14:30	CJG	A
cis-1,3-Dichloropropene	ND	ug/L		1.0	0.31	SW846 8260B			1/16/14 14:30	CJG	A
trans-1,3-Dichloropropene	ND	ug/L		1.0	0.29	SW846 8260B			1/16/14 14:30	CJG	A
Diisopropyl ether	ND	ug/L		1.0	0.25	SW846 8260B			1/16/14 14:30	CJG	A
Ethyl tert-butyl ether	ND	ug/L		1.0	0.19	SW846 8260B			1/16/14 14:30	CJG	A
Ethylbenzene	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 14:30	CJG	A
2-Hexanone	ND	ug/L		5.0	1.3	SW846 8260B			1/16/14 14:30	CJG	A
Methyl t-Butyl Ether	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		5.0	1.5	SW846 8260B			1/16/14 14:30	CJG	A
Methylene Chloride	ND	ug/L		1.0	0.45	SW846 8260B			1/16/14 14:30	CJG	A
Styrene	ND	ug/L		1.0	0.24	SW846 8260B			1/16/14 14:30	CJG	A
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0	0.34	SW846 8260B			1/16/14 14:30	CJG	A
Tetrachloroethene	ND	ug/L		1.0	0.35	SW846 8260B			1/16/14 14:30	CJG	A

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

ANALYTICAL RESULTS

Workorder: 1067540 2014-CALVERT CITGO/5977

Lab ID: **1067540017** Date Collected: 1/13/2014 00:00 Matrix: Ground Water

Sample ID: **Trip Blank_20140113_TB** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Toluene	ND	ug/L		1.0	0.23	SW846 8260B			1/16/14 14:30	CJG	A
Total Xylenes	ND	ug/L		3.0	0.66	SW846 8260B			1/16/14 14:30	CJG	A
1,1,1-Trichloroethane	ND	ug/L		1.0	0.22	SW846 8260B			1/16/14 14:30	CJG	A
1,1,2-Trichloroethane	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
Trichloroethene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
Vinyl Chloride	ND	ug/L		1.0	0.30	SW846 8260B			1/16/14 14:30	CJG	A
o-Xylene	ND	ug/L		1.0	0.33	SW846 8260B			1/16/14 14:30	CJG	A
mp-Xylene	ND	ug/L		2.0	0.52	SW846 8260B			1/16/14 14:30	CJG	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	105	%		62-133		SW846 8260B			1/16/14 14:30	CJG	A
4-Bromofluorobenzene (S)	100	%		79-114		SW846 8260B			1/16/14 14:30	CJG	A
Dibromofluoromethane (S)	83.9	%		78-116		SW846 8260B			1/16/14 14:30	CJG	A
Toluene-d8 (S)	89.6	%		76-127		SW846 8260B			1/16/14 14:30	CJG	A

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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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

ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1067540 2014-CALVERT CITGO/5977

PARAMETER QUALIFIERS\FLAGS

[1] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 65.4 and the control limits were 78 to 116. This result was reported at a dilution of 1.

[2] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 73.6 and the control limits were 78 to 116. This result was reported at a dilution of 5.

[3] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 0 and the control limits were 70 to 130.

[5] The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 66.7 and the control limits were 70 to 130.

[6] The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 73.5 and the control limits were 78 to 116. This result was reported at a dilution of 5.

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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 3
Courier:
Tracking #:
1067540

Co. Name: REPSG, Inc
Contact (Report to): James Manuel
Phone: 215-724-3220
Address: 6901 Kingsessing Ave, Philadelphia, PA 19142
Bill to (if different than Report to): Same
PO#: 8889
Project Name/#: Calvert City/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y jmanuel@repsg.com/ bmacpha@repsg.com
Fax? Y No.:

***Container Type: 40A
***Container Size: 40ml
***Preservative: HCL

ANALYSES/METHOD REQUESTED: VOC's by 8260B Including Fuel Oxygenates

	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	MP-001		1-13-14	1345	G	GW	3
2	MP-002		1-13-14	1240	G	GW	3
3	MW-001		1-14-14	1130	G	GW	~~3~~ 4
4	MW-001R		1-14-14	1220	G	GW	~~3~~ 4
5	MW-002		1-14-14	1410	G	GW	~~3~~ 4
6	MW-003		1-13-14	1150	G	GW	3
7	MW-003R		1-13-14	1105	G	GW	3
8	MW-005		1-13-14	1140	G	GW	~~3~~ 4

SAMPLED BY (Please Print): Mike Kamchi
LOGGED BY (signature): [signature] Date: 1/16/14 Time: 0501
REVIEWED BY (signature): SJS Date: 01/17/14

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] REPSG	1/15/14	14:00	2	[signature]	1-15	1400
3	[signature]	1-15		4	[signature]	1/15/14	1800
5	[signature]	1/15/14	2200	6	[signature]	1/15	2200
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [X] If yes, format type: EQuIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
Enter PWSID No.
DOD Criteria Required?

Receipt Information (completed by Sample Receipt)
Performed by: [initials]
Cooler Temp: 1
Therm. ID: 215
No. of Coolers:
Notes:

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

ALSI FIELD SERVICES
[X] 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
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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 2 of 3
Courier:
Tracking #:
COC# 1067540

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#: 8889
Project Name/#: Calvert Citgo / 5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? Y jmanuel@repsg.com / bruce.phair@repsg.com
Fax? Y No.:

***Container Type: VOA; ***Container Size: 40mL; ***Preservative: HCL

ANALYSES/METHOD REQUESTED: VOC's by 8260B Excluding Fuel Oxygenates

#	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	MW-005R		1-13-14	1050	G	GW	4
2	MW-006		1-13-14	1235	G	GW	4
3	MW-007		1-13-14	1300	G	GW	4
4	MW-008		1-13-14	1340	G	GW	4
5	MW-008D		1-14-14	1350	G	GW	4
6	Duplicate-001		1-14-14	—	G	GW	4
7	Field Blank-001		1-13-14	1200	G	DI	4
8	Field Blank-002		1-14-14	N/A	G	DI	4

SAMPLED BY (Please Print): Mike Kummi
LOGGED BY (signature): [signature] DATE: 1/16/14 TIME: 0901
REVIEWED BY (signature): SJS DATE: 01/17/14 TIME:

#	Relinquished By / Company Name	Date	Time	#	Received By / Company Name	Date	Time
1	[signature] REPSG	1/13/14	14:00	2	RA Hunger	1-14	1400
3	Ron Hunger	1-15		4	[signature]	1/15/14	1900
5	[signature]	1/15/14	2200	6	[signature]	1/15	2200
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other
EDDs Required? [X] If yes, format type: EQUIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ] Other
Enter PWSID No
DOD Criteria Required?

Receipt Information (completed by Sample Receiving)
Performed by: [initials]
Cooler Temp: 1
Therm. ID: 215
No. of Coolers:
Notes:

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

ALSI FIELD SERVICES: [X] 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
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.
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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 3 of 3
Courier:
Tracking #:
COC# 1068510

Co. Name: REPSG, Inc
Contact (Report to): James Manuel
Phone: 215-789-3000
Address: 6601 Kingsessing Ave Philadelphia, PA 19142
Bill to (if different than Report to): Same
PO#: 8889
Project Name/#: Calvert City 16977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y jmanuel@repsg.com / bmcepnull@repsg.com
Fax? [ ] Y No.:

***Container Type: VA
***Container Size: 4oml
*** Preservative: HCL

ANALYSES/METHOD REQUESTED: VOCs by 8260B Including fuel oxygenates

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 8260B										
1	Trip Blank-001		1-13-14	—	G	DI	3	4									
2																	
3																	
4																	
5																	
6																	
7																	
8																	

Receipt Information (completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 1
Therm. ID: 215
No. of Coolers:
Notes:

Circle appropriate Y or N.

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

SAMPLED BY (Please Print): Mike Kumani
LOGGED BY (signature): [signature] DATE: 1/16/14 TIME: 0830
REVIEWED BY (signature): SAS DATE: 01/17/14 TIME:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] REPSG	1/15/14	14 [illegible]	2	[signature]	1-15	1400
3	[signature]	1/15		4	[signature]	1/15/14	1900
5	[signature]	1/15/14	2200	6	[signature]	1/15	2200
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other
EDDs Required? [X] If yes, format type: EQuIS
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ] 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.

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On-site

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Courier:
Tracking #:
COC#

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel **Phone:** 215-729-3220
Address: 6401 Kingsessing Ave Philadelphia, PA
Bill to (if different than Report to): Same **PO#:** 8888
Project Name/#: Calvert City (K597) **ALSI Quote #:**
TAT: [✓] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:
Email? [X] Y jmanuel@repsg.com / bmarphi@repsg.com
Fax? Y No.:

	***Container Type	***Container Size	***Preservative
VOC's By 524.2 Including Fuel Oxygenates	VOA	40ml	HCl / AA
[illegible]	[illegible]	[illegible]	[illegible]
Residual Chlorine	Poly	500ml	UP

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC's By 524.2 Including Fuel Oxygenates		Residual Chlorine
1	DW-001	Pre-filtration	1-14-14	[illegible]	G	DW	2		1
2	DW-001A	Mid-Filtration	1-14-14	1405	G	DW	2		1
3	DW-001B	Post-filtration	1-14-14	1400	G	DW	2		1
4									
5									
6									
7									
8									

-Grundfos

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

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

SAMPLED BY (Please Print): Mike Kumari
LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] REPSG	1/15/14	14:00	2	[signature]	1-15	1400
3				4			
5				6			
7				8			
9				10			

Data Deliverables
[ ] Standard
[ ] CLP-like
[ ] NJ-Reduced
[ ] NJ-Full
[ ] other
EDDs Required? [X] If yes, format type: EQuIS

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
⇨ Enter PWSID No.
DOD Criteria Required?

Fac Pipe

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.

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Pre-Filtration

		Sample ID	*DW-001*
		Sample date	*01/14/2014*
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	4.8
Isopropyl Ether	**	ug/l	0.84
Methyl tert-butyl ether	20	ug/l	18.6

Mid-Filtration

		Sample ID	*DW-001A*
		Sample date	*01/14/2014*
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	4.6
Methyl ethyl ketone	**	ug/l	6.2
Methyl tert-butyl ether	20	ug/l	0.12

Post-Filtration

		Sample ID	*DW-001B*
		Sample date	*01/14/2014*
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	5.4
Methyl ethyl ketone	**	ug/l	5.5

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/14/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-001	DW-001A	DW-001B
			Date:	01/14/2014	01/14/2014	01/14/2014
			Depth (ft):	0	0	0
Not Otherwise Specified						
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U
Chlorine	ug/l	**		<10U	-	-
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U

** 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.

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/14/2014**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/14/2014	01/14/2014	01/14/2014
			Depth (ft):	0	0	0
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U
Semi-Volatile Organic Compounds (SVOCs)						
Hexachloroethane	ug/l	**		<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**		<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	ug/l	**		<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200		<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**		<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5		<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7		<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**		<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**		<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**		<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5		<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**		<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**		<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**		<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**		<1.5U	<1.5U	<1.5U

** 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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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/14/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-001	DW-001A	DW-001B
			Date:	01/14/2014	01/14/2014	01/14/2014
			Depth (ft):	0	0	0
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		4.8J	4.6J	5.4
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**		<0.11U	<0.11U	<0.11U
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U

** No Applicable Regulatory Standard

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/14/2014**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/14/2014	01/14/2014	01/14/2014
			Depth (ft):	0	0	0
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		0.84	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	6.2	5.5
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		18.6	0.12J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 01/14/2014**

Regulatory Standard*:

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

Constituent	Unit	*Standard	Location:	DW-001	DW-001A	DW-001B
			Date:	01/14/2014	01/14/2014	01/14/2014
			Depth (ft):	0	0	0
tert-Butylalcohol	ug/l	**		<1.4U	<1.4U	<1.4U
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<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
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

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ALS Environmental

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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

January 22, 2014

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1067546**
Purchase Order:	**8888**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 15, 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: Ms. Brenda MacPhail Kellogg

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

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SAMPLE SUMMARY

Workorder: 1067546 2014-CALVERT CITGO/5977 Discard Date: 02/05/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1067546001	DW-001_20140114_N	Water	1/14/14 14:10	1/15/14 22:00	Customer
1067546002	DW-001A_20140114_N	Water	1/14/14 14:05	1/15/14 22:00	Customer
1067546003	DW-001B_20140114_N	Water	1/14/14 14:00	1/15/14 22:00	Customer

Workorder Comments:

This certificate of analysis was modified to correct the analyzed date on all samples for wet chemistry analysis Chlorine, Total Residual S4500ClG-00. SJS 01/22/14

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: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546001** Date Collected: 1/14/2014 14:10 Matrix: Water

Sample ID: **DW-001_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.8J	ug/L		5.0	2.2	EPA 524.2			1/16/14 14:22	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 14:22	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 14:22	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:22	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 14:22	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:22	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:22	TMP	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			1/16/14 14:22	TMP	A
tert-Butyl Alcohol	ND	ug/L		5.0	1.4	EPA 524.2			1/16/14 14:22	TMP	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:22	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:22	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:22	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:22	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 14:22	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:22	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 14:22	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:22	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:22	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 14:22	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 14:22	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:22	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 14:22	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 14:22	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:22	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546001** Date Collected: 1/14/2014 14:10 Matrix: Water

Sample ID: **DW-001_20140114_N** Date Received: 1/15/2014 22:00

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			1/16/14 14:22	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:22	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:22	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:22	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:22	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 14:22	TMP	A
Diisopropyl ether	0.84	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 14:22	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 14:22	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:22	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:22	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 14:22	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 14:22	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 14:22	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 14:22	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:22	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 14:22	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:22	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 14:22	TMP	A
Methyl t-Butyl Ether	18.6	ug/L		0.50	0.090	EPA 524.2			1/16/14 14:22	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 14:22	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 14:22	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 14:22	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 14:22	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 14:22	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:22	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:22	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 14:22	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 14:22	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:22	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546001** Date Collected: 1/14/2014 14:10 Matrix: Water

Sample ID: **DW-001_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 14:22	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:22	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:22	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:22	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:22	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 14:22	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:22	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:22	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:22	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:22	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:22	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	91.3	%		70-130		EPA 524.2			1/16/14 14:22	TMP	A
4-Bromofluorobenzene (S)	80.5	%		70-130		EPA 524.2			1/16/14 14:22	TMP	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546002** Date Collected: 1/14/2014 14:05 Matrix: Water

Sample ID: **DW-001A_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	4.6J	ug/L		5.0	2.2	EPA 524.2			1/16/14 14:47	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 14:47	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 14:47	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:47	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 14:47	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:47	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:47	TMP	A
2-Butanone	6.2	ug/L		2.5	1.3	EPA 524.2			1/16/14 14:47	TMP	A
tert-Butyl Alcohol	ND	ug/L		5.0	1.4	EPA 524.2			1/16/14 14:47	TMP	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:47	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:47	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:47	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:47	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 14:47	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:47	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 14:47	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:47	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:47	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 14:47	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 14:47	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:47	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 14:47	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 14:47	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:47	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546002** Date Collected: 1/14/2014 14:05 Matrix: Water

Sample ID: **DW-001A_20140114_N** Date Received: 1/15/2014 22:00

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			1/16/14 14:47	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:47	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:47	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:47	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:47	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 14:47	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 14:47	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 14:47	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:47	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 14:47	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 14:47	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 14:47	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 14:47	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 14:47	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:47	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 14:47	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:47	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 14:47	TMP	A
Methyl t-Butyl Ether	0.12J	ug/L		0.50	0.090	EPA 524.2			1/16/14 14:47	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 14:47	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 14:47	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 14:47	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 14:47	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 14:47	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 14:47	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 14:47	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 14:47	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 14:47	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:47	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546002** Date Collected: 1/14/2014 14:05 Matrix: Water

Sample ID: **DW-001A_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 14:47	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 14:47	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 14:47	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 14:47	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 14:47	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 14:47	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 14:47	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 14:47	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 14:47	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 14:47	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 14:47	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	101	%		70-130		EPA 524.2			1/16/14 14:47	TMP	A
4-Bromofluorobenzene (S)	86.8	%		70-130		EPA 524.2			1/16/14 14:47	TMP	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546003** Date Collected: 1/14/2014 14:00 Matrix: Water

Sample ID: **DW-001B_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	5.4	ug/L		5.0	2.2	EPA 524.2			1/16/14 15:13	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 15:13	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 15:13	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:13	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 15:13	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:13	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:13	TMP	A
2-Butanone	5.5	ug/L		2.5	1.3	EPA 524.2			1/16/14 15:13	TMP	A
tert-Butyl Alcohol	ND	ug/L		5.0	1.4	EPA 524.2			1/16/14 15:13	TMP	A
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:13	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:13	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:13	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:13	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 15:13	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:13	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 15:13	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:13	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:13	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 15:13	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 15:13	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:13	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 15:13	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 15:13	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:13	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	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: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546003** Date Collected: 1/14/2014 14:00 Matrix: Water

Sample ID: **DW-001B_20140114_N** Date Received: 1/15/2014 22:00

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			1/16/14 15:13	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:13	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:13	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:13	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:13	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 15:13	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 15:13	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 15:13	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:13	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:13	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 15:13	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 15:13	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 15:13	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 15:13	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:13	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 15:13	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:13	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 15:13	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/16/14 15:13	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 15:13	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 15:13	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 15:13	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 15:13	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 15:13	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:13	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:13	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 15:13	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 15:13	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:13	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067546 2014-CALVERT CITGO/5977

Lab ID: **1067546003** Date Collected: 1/14/2014 14:00 Matrix: Water

Sample ID: **DW-001B_20140114_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 15:13	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:13	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:13	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:13	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:13	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 15:13	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:13	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:13	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:13	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:13	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:13	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	93.8	%		70-130		EPA 524.2			1/16/14 15:13	TMP	A
4-Bromofluorobenzene (S)	88.4	%		70-130		EPA 524.2			1/16/14 15:13	TMP	A
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1067546 2014-CALVERT CITGO/5977

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 60.4 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 57.7 and the control limits were 70 to 130.

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2794

Analytical Laboratory Services, Inc.
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#: 8887
Project Name/#: Calvert Citgo/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] -Y jmanuel@repsg.com/bmacphail@repsg.com
Fax? [ ] -Y No.:

	Analysis 1	Analysis 2
***Container Type	VOA	Poly
***Container Size	40ml	500ml
***Preservative	HCL ASC	UP
ANALYSES/METHOD REQUESTED	VOCs by 524.2 including fuel oxygenates	Residual Chlorine

#	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOCs by 524.2 including fuel oxygenates	Residual Chlorine
1	DW-004K	Post-filtration	1-13-14	9:45	G	DW	2	1
2	DW-004 J	Mid-Carbon 2	1-13-14	9:50	G	DW	2	1
3	DW-004 I	Mid-Carbon 1	1-13-14	9:55	G	DW	2	1
4	DW-004 C	Pre-filtration	1-13-14	10:00	G	DW	2	1
5								
6								
7								
8								

Enter Number of Containers Per Analysis

SAMPLED BY (Please Print): Garth Mahosky
LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

#	Relinquished By / Company Name	Date	Time	#	Received By / Company Name	Date	Time
1	[signature] REPSG	1/15/14	14:00	2	[signature]	1-15	1400
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?

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

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

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

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

Rev 6/07

Pre-Filtration

		Sample ID	*DW-004C*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
1,2-Dichloroethane	5	ug/l	**12.4**
Isopropyl ether	**	ug/l	5.7
Methyl tert-butyl ether	20	ug/l	**529**
Tert-Amyl alcohol	**	ug/l	3.7
Tert-Amyl Methyl Ether	**	ug/l	4240

Mid-Carbon 1

		Sample ID	*DW-004I*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	8
Methyl ethyl ketone	**	ug/l	17.7
tert-Butylalcohol	**	ug/l	2560

Mid-Carbon 2

		Sample ID	*DW-004J*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	3.3
Methyl ethyl ketone	**	ug/l	12.2
tert-Butylalcohol	**	ug/l	2860

Post-Carbon

		Sample ID	*DW-004K*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	7.5
Methyl ethyl ketone	**	ug/l	8.7
tert-Butylalcohol	**	ug/l	2840

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January 22, 2014

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1067547**
Purchase Order:	**8887**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 15, 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: Ms. Brenda MacPhail Kellogg

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

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SAMPLE SUMMARY

Workorder: 1067547 2014-CALVERT CITGO/5977 Discard Date: 02/05/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1067547001	DW-004K_20140113_N	Water	1/13/14 09:45	1/15/14 22:00	Customer
1067547002	DW-004J_20140113_N	Water	1/13/14 09:50	1/15/14 22:00	Customer
1067547003	DW-004I_20140113_N	Water	1/13/14 09:55	1/15/14 22:00	Customer
1067547004	DW-004C_20140113_N	Water	1/13/14 10:00	1/15/14 22:00	Customer

Workorder Comments:

This certificate of analysis was modified to correct the analyzed date on all samples for wet chemistry analysis Chlorine, Total Residual S4500ClG-00. SJS 01/22/14

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: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547001** Date Collected: 1/13/2014 09:45 Matrix: Water

Sample ID: **DW-004K_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.5	ug/L		5.0	2.2	EPA 524.2			1/16/14 15:39	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 15:39	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 15:39	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:39	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 15:39	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:39	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:39	TMP	A
2-Butanone	8.7	ug/L		2.5	1.3	EPA 524.2			1/16/14 15:39	TMP	A
tert-Butyl Alcohol	2840	ug/L		500	140	EPA 524.2			1/17/14 05:30	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:39	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:39	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:39	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:39	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 15:39	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:39	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 15:39	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:39	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:39	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 15:39	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:39	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 15:39	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:39	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547001** Date Collected: 1/13/2014 09:45 Matrix: Water

Sample ID: **DW-004K_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 15:39	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:39	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:39	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:39	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 15:39	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 15:39	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 15:39	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:39	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 15:39	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 15:39	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 15:39	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 15:39	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 15:39	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:39	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 15:39	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:39	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 15:39	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/16/14 15:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 15:39	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 15:39	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 15:39	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 15:39	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 15:39	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 15:39	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 15:39	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 15:39	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 15:39	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547001** Date Collected: 1/13/2014 09:45 Matrix: Water

Sample ID: **DW-004K_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 15:39	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 15:39	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 15:39	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 15:39	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 15:39	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 15:39	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 15:39	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 15:39	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 15:39	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 15:39	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 15:39	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	90.7	%		70-130		EPA 524.2			1/16/14 15:39	TMP	A
4-Bromofluorobenzene (S)	86.5	%		70-130		EPA 524.2			1/16/14 15:39	TMP	A
1,2-Dichlorobenzene-d4 (S)	80.3	%		70-130		EPA 524.2			1/17/14 05:30	TMP	B
4-Bromofluorobenzene (S)	88.7	%		70-130		EPA 524.2			1/17/14 05:30	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547002** Date Collected: 1/13/2014 09:50 Matrix: Water

Sample ID: **DW-004J_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	3.3J	ug/L		5.0	2.2	EPA 524.2			1/16/14 16:04	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:04	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 16:04	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:04	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 16:04	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:04	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:04	TMP	A
2-Butanone	12.2	ug/L		2.5	1.3	EPA 524.2			1/16/14 16:04	TMP	A
tert-Butyl Alcohol	2860	ug/L		500	140	EPA 524.2			1/17/14 05:56	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:04	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:04	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:04	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:04	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:04	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:04	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 16:04	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:04	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:04	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:04	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:04	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 16:04	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:04	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547002** Date Collected: 1/13/2014 09:50 Matrix: Water

Sample ID: **DW-004J_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 16:04	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:04	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:04	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:04	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:04	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 16:04	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:04	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:04	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:04	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 16:04	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 16:04	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 16:04	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 16:04	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:04	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:04	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:04	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 16:04	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/16/14 16:04	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 16:04	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 16:04	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 16:04	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 16:04	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 16:04	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:04	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:04	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:04	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 16:04	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:04	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: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547002** Date Collected: 1/13/2014 09:50 Matrix: Water

Sample ID: **DW-004J_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 16:04	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:04	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:04	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:04	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:04	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 16:04	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:04	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:04	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:04	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:04	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:04	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89.8	%		70-130		EPA 524.2			1/16/14 16:04	TMP	A
4-Bromofluorobenzene (S)	81.1	%		70-130		EPA 524.2			1/16/14 16:04	TMP	A
1,2-Dichlorobenzene-d4 (S)	84.4	%		70-130		EPA 524.2			1/17/14 05:56	TMP	B
4-Bromofluorobenzene (S)	92	%		70-130		EPA 524.2			1/17/14 05:56	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547003** Date Collected: 1/13/2014 09:55 Matrix: Water

Sample ID: **DW-004I_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	8.0	ug/L		5.0	2.2	EPA 524.2			1/16/14 16:30	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:30	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 16:30	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:30	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 16:30	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:30	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:30	TMP	A
2-Butanone	17.7	ug/L		2.5	1.3	EPA 524.2			1/16/14 16:30	TMP	A
tert-Butyl Alcohol	2560	ug/L		500	140	EPA 524.2			1/17/14 06:21	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:30	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:30	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:30	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:30	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:30	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:30	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 16:30	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:30	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:30	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:30	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:30	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 16:30	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:30	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547003** Date Collected: 1/13/2014 09:55 Matrix: Water

Sample ID: **DW-004I_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 16:30	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:30	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:30	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:30	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:30	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 16:30	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:30	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:30	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:30	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 16:30	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 16:30	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 16:30	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 16:30	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:30	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:30	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:30	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 16:30	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/16/14 16:30	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 16:30	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 16:30	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 16:30	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 16:30	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 16:30	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:30	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:30	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:30	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 16:30	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:30	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547003** Date Collected: 1/13/2014 09:55 Matrix: Water

Sample ID: **DW-004I_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 16:30	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:30	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:30	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:30	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:30	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 16:30	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:30	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:30	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:30	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:30	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:30	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99.1	%		70-130		EPA 524.2			1/16/14 16:30	TMP	A
4-Bromofluorobenzene (S)	99.7	%		70-130		EPA 524.2			1/16/14 16:30	TMP	A
1,2-Dichlorobenzene-d4 (S)	88.8	%		70-130		EPA 524.2			1/17/14 06:21	TMP	B
4-Bromofluorobenzene (S)	90.8	%		70-130		EPA 524.2			1/17/14 06:21	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547004** Date Collected: 1/13/2014 10:00 Matrix: Water

Sample ID: **DW-004C_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			1/16/14 16:56	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:56	TMP	A
tert-Amyl methyl ether	3.7	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
tert-Amyl Alcohol	ND	ug/L		500	160	EPA 524.2			1/17/14 06:47	TMP	B
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:56	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 16:56	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:56	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:56	TMP	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			1/16/14 16:56	TMP	A
tert-Butyl Alcohol	4240	ug/L		500	140	EPA 524.2			1/17/14 06:47	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:56	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:56	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:56	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:56	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 16:56	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:56	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 16:56	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:56	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:56	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:56	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:56	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 16:56	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:56	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dichloroethane	12.4	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	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: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547004** Date Collected: 1/13/2014 10:00 Matrix: Water

Sample ID: **DW-004C_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 16:56	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:56	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:56	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:56	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:56	TMP	A
Diisopropyl ether	5.7	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 16:56	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 16:56	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:56	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 16:56	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 16:56	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 16:56	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 16:56	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 16:56	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:56	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 16:56	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:56	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 16:56	TMP	A
Methyl t-Butyl Ether	529	ug/L		50.0	9.0	EPA 524.2			1/17/14 06:47	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 16:56	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 16:56	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 16:56	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 16:56	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 16:56	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 16:56	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 16:56	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 16:56	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 16:56	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:56	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067547 2014-CALVERT CITGO/5977

Lab ID: **1067547004** Date Collected: 1/13/2014 10:00 Matrix: Water

Sample ID: **DW-004C_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 16:56	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 16:56	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 16:56	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 16:56	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 16:56	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 16:56	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 16:56	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 16:56	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 16:56	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 16:56	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 16:56	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89	%		70-130		EPA 524.2			1/16/14 16:56	TMP	A
4-Bromofluorobenzene (S)	99	%		70-130		EPA 524.2			1/16/14 16:56	TMP	A
1,2-Dichlorobenzene-d4 (S)	94.7	%		70-130		EPA 524.2			1/17/14 06:47	TMP	B
4-Bromofluorobenzene (S)	86.1	%		70-130		EPA 524.2			1/17/14 06:47	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1067547 2014-CALVERT CITGO/5977

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 60.4 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 57.7 and the control limits were 70 to 130.

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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 #:
* 1 0 6 7 5 4 7 *

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#: [crossed out] 8887
Project Name/#: Calvert Citgo/5977
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [X] Y jmanuel@repsg.com / bmacphail@repsg.com
Fax? [ ] Y No.:

***Container Type	VOA	Poly
***Container Size	40ml	Saml
***Preservative	HCL	UP

ANALYSES/METHOD REQUESTED: ASL VOC's by 524.2 including fuel oxygenates; Residual Chlorine

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	VOC's by 524.2 including fuel oxygenates	Residual Chlorine
1 DW-004K	Post-Filtration	1-13-14	9:45	G	DW	2	1
2 DW-004 J	Mid-Carbon 2	1-13-14	9:50	G	DW	2	1
3 DW-004 I	Mid-Carbon 1	1-13-14	9:55	G	DW	2	1
4 DW-004 C	Pre-Filtration	1-13-14	10:00	G	DW	2	1
5							
6							
7							
8							

Enter Number of Containers Per Analysis

SAMPLED BY (Please Print): Garth Mahoney
LOGGED BY(signature): [signature] DATE: 1/16/14 TIME: 0852
REVIEWED BY(signature): SJS DATE: 01/17/14

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] REPSG	1/15/14	14:00	2 Ron Hodges	1-15	1400
3 Ron Hodges	1-15		4 [signature]	1/15/14	1950
5 [signature]	1/15/14	2200	6 [signature]	1/15	2200
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?

(completed by Sample Receiving) Performed by: [initials]
Cooler Temp: 1
Therm. ID: 215
No. of Coolers:
Notes:

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

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.

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2802

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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: 215-724-3220

Address: 6901 Kingsessing Ave. Philadelphia, PA 19142

Bill to (if different than Report to): Same PO#: 8886

Project Name/#: Culvert Utility/5477 ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:

Email? [X] Y jmanuel@repsg.com / bmacphail@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	***Container Type	***Container Size	*** Preservative	ANALYSES/METHOD REQUESTED: VOCs by 524.2 Including Fuel Oxygenates	Residual Chlorine	Enter Number of Containers Per Analysis
1 DW-005K	Post-filtration	1-13-15	12:55	G	DW	VOA	40ml	HCl	2	1	
2 DW-005J	Mid-Carbon 2	1-13-15	13:00	G	DW	VOA	40ml	HCl	2	1	
3 DW-005I	Mid-Carbon 1	1-13-15	13:05	G	DW	VOA	40ml	HCl	2	1	
4 DW-005A	Pre-filtration	1-13-15	13:10	G	DW	VOA	40ml	HCl	2	1	
5											
6											
7											
8											

ASC

Receipt Information (completed by Sample Receiving)

Performed by: INITIAL HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

	1	2	3	4	5	6	7	8
Correct containers?	N	N	N	N				
Correct sample volume?	Y	Y	Y	Y				
Correct preservation?	N	N	N	N				
Headspace/Volatiles?	N	N	N	N				
Circle appropriate Y or N.								
Custody seals Present?	Y	Y	Y	Y				
(if present) Seals intact?	Y	Y	Y	Y				
Received on ice?	Y	Y	Y	Y				
COC/Labels complete/accurate?	Y	Y	Y	Y				
Container in good condition?	Y	Y	Y	Y				

SAMPLED BY (Please Print): Gareth Mahosky

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 REPSG	1/15/15	14:00	2 Dan Lange	1-15	1400
3			4		
5			6		
7			8		
9			10		

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

SDWA Forms?⇨ 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

[X] 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.

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Pre-Filtration

		Sample ID	*DW-005A*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
1,2-Dichloroethane	5	ug/l	1.9
Isopropyl Ether	**	ug/l	1.2
Methyl ethyl ketone	**	ug/l	4.9
Methyl tert-butyl ether	20	ug/l	**185**
Tert-Amyl Methyl Ether	**	ug/l	2.2
tert-Butylalcohol	**	ug/l	276

Mid-Carbon 1

		Sample ID	*DW-005I*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	9.5
Methyl ethyl ketone	**	ug/l	7.2
Methyl tert-butyl ether	20	ug/l	1.8
tert-Butylalcohol	**	ug/l	590

Mid-Carbon 2

		Sample ID	*DW-005J*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	7.3
tert-Butylalcohol	**	ug/l	1180

Post-Carbon

		Sample ID	*DW-005K*
		Sample date	1/13/2014
Compound	**EPA Std.**	**Unit**	
Acetone	**	ug/l	5.2
tert-Butylalcohol	**	ug/l	838

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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

January 22, 2014

Mr. James Manuel
REPSG
6901 Kingsessing Avenue
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**1067549**
Purchase Order:	**8886**	Workorder ID:	**2014-CALVERT CITGO/5977**

Dear Mr. Manuel,

Enclosed are the analytical results for samples received by the laboratory on Wednesday, January 15, 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: Ms. Brenda MacPhail Kellogg

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

Susan Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 1067549 2014-CALVERT CITGO/5977 Discard Date: 02/05/2014

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
1067549001	DW-005K_20140113_N	Water	1/13/14 12:55	1/15/14 22:00	Customer
1067549002	DW-005J_20140113_N	Water	1/13/14 13:00	1/15/14 22:00	Customer
1067549003	DW-005I_20140113_N	Water	1/13/14 13:05	1/15/14 22:00	Customer
1067549004	DW-005A_20140113_N	Water	1/13/14 13:10	1/15/14 22:00	Customer

Workorder Comments:

This certificate of analysis was modified to correct the analyzed date on all samples for wet chemistry analysis Chlorine, Total Residual S4500ClG-00. SJS 01/22/14

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: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549001** Date Collected: 1/13/2014 12:55 Matrix: Water

Sample ID: **DW-005K_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	5.2	ug/L		5.0	2.2	EPA 524.2			1/16/14 17:21	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 17:21	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 17:21	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:21	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 17:21	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:21	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:21	TMP	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			1/16/14 17:21	TMP	A
tert-Butyl Alcohol	838	ug/L		100	28.0	EPA 524.2			1/17/14 07:13	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:21	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:21	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:21	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:21	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 17:21	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:21	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 17:21	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:21	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:21	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 17:21	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:21	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 17:21	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:21	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549001** Date Collected: 1/13/2014 12:55 Matrix: Water

Sample ID: **DW-005K_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 17:21	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:21	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:21	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:21	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 17:21	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 17:21	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 17:21	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:21	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:21	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 17:21	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 17:21	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 17:21	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 17:21	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:21	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 17:21	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:21	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 17:21	TMP	A
Methyl t-Butyl Ether	ND	ug/L		10.0	1.8	EPA 524.2			1/17/14 07:13	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 17:21	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 17:21	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 17:21	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 17:21	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 17:21	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:21	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:21	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 17:21	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 17:21	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:21	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549001** Date Collected: 1/13/2014 12:55 Matrix: Water

Sample ID: **DW-005K_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 17:21	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:21	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:21	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:21	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:21	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 17:21	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:21	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:21	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:21	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:21	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:21	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	89	%		70-130		EPA 524.2			1/16/14 17:21	TMP	A
4-Bromofluorobenzene (S)	80.4	%		70-130		EPA 524.2			1/16/14 17:21	TMP	A
1,2-Dichlorobenzene-d4 (S)	86.2	%		70-130		EPA 524.2			1/17/14 07:13	TMP	B
4-Bromofluorobenzene (S)	91.4	%		70-130		EPA 524.2			1/17/14 07:13	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549002** Date Collected: 1/13/2014 13:00 Matrix: Water

Sample ID: **DW-005J_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	7.3	ug/L		5.0	2.2	EPA 524.2			1/16/14 17:47	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 17:47	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 17:47	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:47	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 17:47	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:47	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:47	TMP	A
2-Butanone	ND	ug/L		2.5	1.3	EPA 524.2			1/16/14 17:47	TMP	A
tert-Butyl Alcohol	1180	ug/L		100	28.0	EPA 524.2			1/17/14 07:38	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:47	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:47	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:47	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:47	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 17:47	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:47	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 17:47	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:47	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:47	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 17:47	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:47	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 17:47	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:47	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	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: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549002** Date Collected: 1/13/2014 13:00 Matrix: Water

Sample ID: **DW-005J_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 17:47	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:47	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:47	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:47	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 17:47	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 17:47	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 17:47	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:47	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 17:47	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 17:47	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 17:47	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 17:47	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 17:47	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:47	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 17:47	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:47	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 17:47	TMP	A
Methyl t-Butyl Ether	ND	ug/L		0.50	0.090	EPA 524.2			1/16/14 17:47	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 17:47	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 17:47	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 17:47	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 17:47	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 17:47	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 17:47	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 17:47	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 17:47	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 17:47	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:47	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549002** Date Collected: 1/13/2014 13:00 Matrix: Water

Sample ID: **DW-005J_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 17:47	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 17:47	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 17:47	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 17:47	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 17:47	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 17:47	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 17:47	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 17:47	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 17:47	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 17:47	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 17:47	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	87.6	%		70-130		EPA 524.2			1/16/14 17:47	TMP	A
4-Bromofluorobenzene (S)	78.4	%		70-130		EPA 524.2			1/16/14 17:47	TMP	A
1,2-Dichlorobenzene-d4 (S)	89.4	%		70-130		EPA 524.2			1/17/14 07:38	TMP	B
4-Bromofluorobenzene (S)	102	%		70-130		EPA 524.2			1/17/14 07:38	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549003** Date Collected: 1/13/2014 13:05 Matrix: Water

Sample ID: **DW-005I_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	9.5	ug/L		5.0	2.2	EPA 524.2			1/16/14 18:13	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 18:13	TMP	A
tert-Amyl methyl ether	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 18:13	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:13	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 18:13	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:13	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:13	TMP	A
2-Butanone	7.2	ug/L		2.5	1.3	EPA 524.2			1/16/14 18:13	TMP	A
tert-Butyl Alcohol	590	ug/L		100	28.0	EPA 524.2			1/17/14 08:04	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:13	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:13	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:13	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:13	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 18:13	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:13	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 18:13	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:13	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:13	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 18:13	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:13	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 18:13	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:13	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549003** Date Collected: 1/13/2014 13:05 Matrix: Water

Sample ID: **DW-005I_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 18:13	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:13	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:13	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:13	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 18:13	TMP	A
Diisopropyl ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 18:13	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 18:13	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:13	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:13	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 18:13	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 18:13	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 18:13	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 18:13	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:13	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 18:13	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:13	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 18:13	TMP	A
Methyl t-Butyl Ether	1.8	ug/L		0.50	0.090	EPA 524.2			1/16/14 18:13	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 18:13	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 18:13	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 18:13	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 18:13	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 18:13	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:13	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:13	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 18:13	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 18:13	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:13	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: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549003** Date Collected: 1/13/2014 13:05 Matrix: Water

Sample ID: **DW-005I_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 18:13	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:13	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:13	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:13	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:13	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 18:13	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:13	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:13	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:13	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:13	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:13	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	81.6	%		70-130		EPA 524.2			1/16/14 18:13	TMP	A
4-Bromofluorobenzene (S)	97.9	%		70-130		EPA 524.2			1/16/14 18:13	TMP	A
1,2-Dichlorobenzene-d4 (S)	72.9	%		70-130		EPA 524.2			1/17/14 08:04	TMP	B
4-Bromofluorobenzene (S)	87.8	%		70-130		EPA 524.2			1/17/14 08:04	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549004** Date Collected: 1/13/2014 13:10 Matrix: Water

Sample ID: **DW-005A_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	ND	ug/L		5.0	2.2	EPA 524.2			1/16/14 18:39	TMP	A
Acrylonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 18:39	TMP	A
tert-Amyl methyl ether	2.2	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
tert-Amyl Alcohol	ND	ug/L		5.0	1.6	EPA 524.2			1/16/14 18:39	TMP	A
tert-Amyl Ethylether	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:39	TMP	A
Benzene	ND	ug/L		0.50	0.070	EPA 524.2			1/16/14 18:39	TMP	A
Bromobenzene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
Bromochloromethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:39	TMP	A
Bromodichloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
Bromoform	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
Bromomethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:39	TMP	A
2-Butanone	4.9	ug/L		2.5	1.3	EPA 524.2			1/16/14 18:39	TMP	A
tert-Butyl Alcohol	276	ug/L		50.0	14.0	EPA 524.2			1/17/14 08:30	TMP	B
n-Butylbenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:39	TMP	A
tert-Butylbenzene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:39	TMP	A
sec-Butylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:39	TMP	A
Carbon Disulfide	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
Carbon Tetrachloride	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:39	TMP	A
Chloroacetonitrile	ND	ug/L		2.5	0.88	EPA 524.2			1/16/14 18:39	TMP	A
Chlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:39	TMP	A
1-Chlorobutane	ND	ug/L		1.0	0.28	EPA 524.2			1/16/14 18:39	TMP	A
Chlorodibromomethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:39	TMP	A
Chloroethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:39	TMP	A
Chloroform	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
Chloromethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
3-Chloro-1-propene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 18:39	TMP	A
o-Chlorotoluene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
p-Chlorotoluene	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dibromo-3-chloropropane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dibromoethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
Dibromomethane	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:39	TMP	A
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0	0.27	EPA 524.2			1/16/14 18:39	TMP	A
1,1-Dichloro-2-Propanone	ND	ug/L		12.5	2.2	EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dichlorobenzene	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:39	TMP	A
1,3-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
1,4-Dichlorobenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
Dichlorodifluoromethane	ND	ug/L	1	0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
1,1-Dichloroethane	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dichloroethane	1.9	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
1,1-Dichloroethene	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	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: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549004** Date Collected: 1/13/2014 13:10 Matrix: Water

Sample ID: **DW-005A_20140113_N** Date Received: 1/15/2014 22:00

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			1/16/14 18:39	TMP	A
trans-1,2-Dichloroethene	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
Dichlorofluoromethane	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
1,3-Dichloropropane	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:39	TMP	A
2,2-Dichloropropane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dichloropropane	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
1,1-Dichloropropene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:39	TMP	A
cis-1,3-Dichloropropene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
trans-1,3-Dichloropropene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:39	TMP	A
1,3-Dichloropropene, Total	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 18:39	TMP	A
Diisopropyl ether	1.2	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
1,4-Dioxane	ND	ug/L		4.0	1.5	EPA 524.2			1/16/14 18:39	TMP	A
Ethyl Ether	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
Ethyl Methacrylate	ND	ug/L		0.50	0.16	EPA 524.2			1/16/14 18:39	TMP	A
Ethyl tert-butyl ether	ND	ug/L		0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
Ethylbenzene	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:39	TMP	A
Hexachlorobutadiene	ND	ug/L		0.50	0.24	EPA 524.2			1/16/14 18:39	TMP	A
Hexachloroethane	ND	ug/L		1.0	0.32	EPA 524.2			1/16/14 18:39	TMP	A
Hexane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
2-Hexanone	ND	ug/L		2.5	0.82	EPA 524.2			1/16/14 18:39	TMP	A
Iodomethane	ND	ug/L	2	0.50	0.19	EPA 524.2			1/16/14 18:39	TMP	A
Isopropyl Alcohol	ND	ug/L		25.0	3.9	EPA 524.2			1/16/14 18:39	TMP	A
Isopropylbenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:39	TMP	A
p-Isopropyltoluene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
Methacrylonitrile	ND	ug/L		1.0	0.23	EPA 524.2			1/16/14 18:39	TMP	A
Methyl methacrylate	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:39	TMP	A
Methyl acrylate	ND	ug/L		1.0	0.21	EPA 524.2			1/16/14 18:39	TMP	A
Methyl t-Butyl Ether	185	ug/L		5.0	0.90	EPA 524.2			1/17/14 08:30	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND	ug/L		2.5	0.56	EPA 524.2			1/16/14 18:39	TMP	A
Methylene Chloride	ND	ug/L		0.50	0.32	EPA 524.2			1/16/14 18:39	TMP	A
Naphthalene	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
Nitrobenzene	ND	ug/L		5.0	1.8	EPA 524.2			1/16/14 18:39	TMP	A
2-Nitropropane	ND	ug/L		2.5	0.80	EPA 524.2			1/16/14 18:39	TMP	A
Pentachloroethane	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
Propionitrile	ND	ug/L		2.5	0.70	EPA 524.2			1/16/14 18:39	TMP	A
n-Propylbenzene	ND	ug/L		0.50	0.10	EPA 524.2			1/16/14 18:39	TMP	A
Styrene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50	0.13	EPA 524.2			1/16/14 18:39	TMP	A
Tetrachloroethene	ND	ug/L		0.50	0.17	EPA 524.2			1/16/14 18:39	TMP	A
Tetrahydrofuran	ND	ug/L		2.5	0.81	EPA 524.2			1/16/14 18:39	TMP	A
Toluene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:39	TMP	A

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ANALYTICAL RESULTS

Workorder: 1067549 2014-CALVERT CITGO/5977

Lab ID: **1067549004** Date Collected: 1/13/2014 13:10 Matrix: Water

Sample ID: **DW-005A_20140113_N** Date Received: 1/15/2014 22:00

Parameters	Results	Units	Footnotes	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Xylenes	ND	ug/L		0.50	0.27	EPA 524.2			1/16/14 18:39	TMP	A
1,2,3-Trichlorobenzene	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
1,2,4-Trichlorobenzene	ND	ug/L		0.50	0.14	EPA 524.2			1/16/14 18:39	TMP	A
1,1,1-Trichloroethane	ND	ug/L		0.50	0.15	EPA 524.2			1/16/14 18:39	TMP	A
1,1,2-Trichloroethane	ND	ug/L		0.50	0.20	EPA 524.2			1/16/14 18:39	TMP	A
Trichloroethene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
Trichlorofluoromethane	ND	ug/L		0.50	0.18	EPA 524.2			1/16/14 18:39	TMP	A
1,2,3-Trichloropropane	ND	ug/L		0.50	0.28	EPA 524.2			1/16/14 18:39	TMP	A
1,2,4-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
1,3,5-Trimethylbenzene	ND	ug/L		0.50	0.11	EPA 524.2			1/16/14 18:39	TMP	A
Vinyl Acetate	ND	ug/L		0.50	0.22	EPA 524.2			1/16/14 18:39	TMP	A
Vinyl Chloride	ND	ug/L		0.50	0.23	EPA 524.2			1/16/14 18:39	TMP	A
o-Xylene	ND	ug/L		0.50	0.12	EPA 524.2			1/16/14 18:39	TMP	A
mp-Xylene	ND	ug/L		0.50	0.21	EPA 524.2			1/16/14 18:39	TMP	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	99	%		70-130		EPA 524.2			1/16/14 18:39	TMP	A
4-Bromofluorobenzene (S)	90.7	%		70-130		EPA 524.2			1/16/14 18:39	TMP	A
1,2-Dichlorobenzene-d4 (S)	87.6	%		70-130		EPA 524.2			1/17/14 08:30	TMP	B
4-Bromofluorobenzene (S)	87.5	%		70-130		EPA 524.2			1/17/14 08:30	TMP	B
WET CHEMISTRY											
Chlorine, Total Residual	ND	mg/L		0.10	0.01	S4500ClG-00			1/17/14 01:10	MSA	D

Sample Comments:

Susan Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 1067549 2014-CALVERT CITGO/5977

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 60.4 and the control limits were 70 to 130.

[2] The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 57.7 and the control limits were 70 to 130.

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2802

Analytical Laboratory Services, Inc.
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 #:
1067549

Co. Name: REPSG, Inc.
Contact (Report to): James Manuel Phone: 215-724-3220
Address: 6901 Kingsessing Ave. Philadelphia, PA 19142
Bill to (if different than Report to): Same PO#: 8886
Project Name/#: Calvert City 0/5977 ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:
Email? [X] Y jmanuel@repsg.com / bmacphail@repsg.com
Fax? Y No.:

					Analysis 1	Analysis 2
***Container Type					VOA	Poly
***Container Size					40ml	500ml
***Preservative					HCL ASC	NP
ANALYSES/METHOD REQUESTED					VOC's by 524.2 Including Fuel Oxygenates	Residual Chlorine
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-005K	Post-Filtration	1-13-14	12:55	G	DW	2	1
2 DW-005J	Mid-Carbon 2	1-13-14	13:00	G	DW	2	1
3 DW-005I	Mid-Carbon 1	1-13-14	13:05	G	DW	2	1
4 DW-005A	Pre-Filtration	1-13-14	13:10	G	DW	2	1
5							
6							
7							
8							

Receipt Information (completed by Sample Receiving)
Performed by:
Cooler Temp:
Therm. ID: 215
No. of Coolers:
Notes:

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

SAMPLED BY (Please Print): Garth Machosky
LOGGED BY (signature): [signature] DATE 1/16/14 TIME 0823
REVIEWED BY (signature): SS DATE 01/17/14 TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] REPSG	1/15/14	14:00	2 Ron Hungry	1-15	1400
3 Ron Hungry	1-15		4 [signature]	1/15/14	1950
5 [signature]	1/15/14	2200	6 [signature]	1/15	2200
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ]
EDDs Required? [X] If yes, format type: EQUIS
Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES
[X] 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