REPSG
React Environmental
Professional Services Group, Inc.

February 3, 2016

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

RE: Drinking Water Results & CAP Installation Update
Calvert Citgo
2815 North East Road, North East, MD
2802 Northeast Road (Harrison Residence)
2794 Northeast Road (O'Brien's Residence)
North East, Maryland 21901
Facility No. 5678
REPSG Project Reference No. 005977.130.01

Dear Ms. DeBartolomeo,

Attached, please find the drinking water results for the Calvert Citgo Site located at 2815 Northeast Road (case NO.: 1992-2616-CE) as well as the drinking water results for the O'Brien and Harrison Residences, located at 2802 and 2794 Northeast Road in Northeast Maryland related to case NO.: 1992-2616-CE. These results are for the December 2016 drinking water events.

The results of the drinking water analysis are compared against the drinking water standards set by the U.S. Environmental Protection Agency (USEPA), which sets legal limits that certain compounds in drinking water should meet in order to be protective of human health. Not all compounds analyzed for in drinking water samples have standards set by the USEPA. Moving forward, MTBE for which no standard is set by the EPA, will be compared against the MDE's recommended control level of 20 parts per billion.

In addition, all trenching for the installation of the necessary piping and other underground system components for the on-Site active remediation system being installed at the Calvert Citgo Site as part of the approved CAP was completed the week ending January 30th, 2017. The equipment trailer for the active remediation system is currently undergoing QA/QC checks off-Site as part of the install process, and is anticipated to be delivered to the Site by February 28th, 2017. Following installation of the trailer at the Site, an electrical inspection will be completed. After successful completion of the trailer's electrical system, the local electrical utility will install the necessary electrical drop at the Site in order to provide electrical service to the system, at which time the system can be initiated and active remediation can begin. At present, REPSG anticipates that system initiation will begin on or about March 14th, 2017.

Pursuant to the MDE's October 12, 2016 "Notice of Non-Compliance" Letter, a report documenting the initial remedial activities for the active remediation system, which will include relevant diagrams and other installation specifications, will be provided within thirty (30) days following system initiation.

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

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

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

REPSG
React Environmental
Professional Services Group, Inc.

Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001 (Pre-Filtration, Gas Station)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/21/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-001	DW-001	DW-001	DW-001	DW-001	DW-001
			Date:	01/21/2016	04/14/2016	08/18/2016	09/16/2016	12/01/2016	12/21/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	<9U	10J	13J	<6U	-
Tert-Amyl Methyl Ether	ug/l	**		0.27J	0.27J	<0.15U	0.37J	-	0.59
Volatile Organic Compounds (VOCs)									
1,2-Dichloroethane	ug/l	5		<0.15U	<0.15U	1.1	1.8	-	<0.15U
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	-	<4U
Acetone	ug/l	**		3.2J	15.7	8.2	5.2	-	3.6J
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	-	<0.07U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	-	<0.19U
Isopropyl Ether	ug/l	**		0.59	0.39J	<0.21U	0.74	-	0.51
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	-	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	12.7	3.5	<1.3U	-	<1.3U
Methyl tert-butyl ether	ug/l	20		19	18.1	15	**22**	-	**40.8**
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	1.7J	-	<1.6U
tert-Butylalcohol	ug/l	**		11	12.7	5.1	8.8	-	<1.4U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	-	<0.12U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001A (Mid-Filtration, Gas Station)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/21/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-001A	DW-001A	DW-001A	DW-001A	DW-001A
			Date:	01/21/2016	04/14/2016	08/18/2016	09/16/2016	12/21/2016
			Depth (ft):	0	0	0	0	0
Not Otherwise Specified								
Methyl iodide	ug/l	**		<0.19U	0.32J	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)								
Acetone	ug/l	**		2.3J	18	12.9	5.3	3.5J
Methyl ethyl ketone	ug/l	**		<1.3U	8	6.4	4.9	<1.3U
Methyl tert-butyl ether	ug/l	20		<0.09U	<0.09U	<0.09U	<0.09U	<0.09U
tert-Butylalcohol	ug/l	**		5.7	6.6	7.8	5.6	<1.4U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)								
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Four Quarters of Results for Compounds Known to Have Detections in Sample DW-001B (Post-Filtration, Gas Station)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/21/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-001B	DW-001B	DW-001B	DW-001B	DW-001B	DW-001B
			Date:	01/21/2016	04/14/2016	08/18/2016	09/16/2016	12/01/2016	12/21/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	<9U	10J	<9U	<6U	-
Isopropanol	ug/l	**		11.2J	<3.9U	<3.9U	<3.9U	-	<3.9U
Methyl iodide	ug/l	**		0.26J	<0.19U	<0.19U	<0.19U	-	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	-	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	-	<4U
Acetone	ug/l	**		3.4J	19.3	11.2	4.1J	-	<2.2U
Methyl ethyl ketone	ug/l	**		<1.3U	10.6	5.3	4.4	-	<1.3U
tert-Butylalcohol	ug/l	**		7.1	7	11.5	4.5J	-	<1.4U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	<0.81U	-	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	-	<0.12U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

December 6, 2016

Ms. Natalie Griffith
REPSG
6901 Kingsessing Ave
Suite 201
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2016-CALVERT CITGO**	Workorder:	**2193091**
Purchase Order:	**13422**	Workorder ID:	**2016-CALVERT CITGO PROJECT/597**

Dear Ms. Griffith:

Enclosed are the analytical results for samples received by the laboratory on Friday, December 2, 2016.

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 Ms. Susan J 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. S Shourds , Mr. James Manuel

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2193091 2016-CALVERT CITGO PROJECT/597

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2193091001	DW-001	Drinking Water	12/1/2016 13:15	12/2/2016 20:20	Collected by Client
2193091002	DW-001A	Drinking Water	12/1/2016 13:20	12/2/2016 20:20	Collected by Client
2193091003	DW-001B	Drinking Water	12/1/2016 13:25	12/2/2016 20:20	Collected by Client

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2193091 2016-CALVERT CITGO PROJECT/597

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 preformed 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”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2193091 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193091001** Date Collected: 12/1/2016 13:15 Matrix: Drinking Water

Sample ID: **DW-001** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	B

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

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ANALYTICAL RESULTS

Workorder: 2193091 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193091002** Date Collected: 12/1/2016 13:20 Matrix: Drinking Water

Sample ID: **DW-001A** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	B

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

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ANALYTICAL RESULTS

Workorder: 2193091 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193091003** Date Collected: 12/1/2016 13:25 Matrix: Drinking Water

Sample ID: **DW-001B** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	B

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2193091001	1	DW-001	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193091002	1	DW-001A	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193091003	1	DW-001B	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ON SITE

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

55B

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

Page 1 of 1
Courier:
Tracking #:

2-193091

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#: 13422
Project Name/#: Calvert Citgo /5977
ALS Quote #:

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

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

	VOA (crossed out)	Poly
***Container Type	~~VOA~~	Poly
***Container Size	~~40ml~~	500ml
***Preservative	~~HCl/4°C~~	UP

ANALYSES/METHOD REQUESTED: ~~VOCs by 524.2~~ ~~inc. oxygenates~~; Residual Chlorine

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 524.2 inc. oxygenates~~	Residual Chlorine
1	DW-001	Pre-Filtration	12-1-16	1315	G	DW		1
2	DW-001A	Mid Filtration	12-1-16	1320	G	DW		1
3	DW-001B	Post-Filtration	12-1-16	1325	G	DW		1
4								
5								
6								
7		12/3/16 005						
8								

Cooler Temp: 1
Therm. ID: 316
No. of Coolers:
Notes:

Circle appropriate Y or N.

	Y	N
Correct containers?		(N)
Correct sample volume?		(N)
Correct preservation?		N
Headspace/Volatiles?		N

	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): DANG PHUNG

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Natalie [signature]	12/2/16	1210	2	Chris [signature]	12216	1210
3	Chris [signature]	12/2	1745	4	[signature]	12-2	1745
5	[signature]	12-2	2020	6	[signature]	12/2	2020
7		- -	—	8			
9				10			

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

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

Performed by: SES

* 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 01-2013

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

December 29, 2016

Ms. Natalie Griffith
REPSG
6901 Kingsessing Ave
Suite 201
Philadelphia, PA 19142

Certificate of Analysis

Project Name:	**2016-CALVERT CITGO**	Workorder:	**2197885**
Purchase Order:	**13527**	Workorder ID:	**2016-CALVERT CITGO/5977**

Dear Ms. Griffith:

Enclosed are the analytical results for samples received by the laboratory on Thursday, December 22, 2016.

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 Ms. Susan J 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. S Shourds , Mr. James Manuel

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

Susan J. Scherer

Ms. Susan J 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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2197885001	DW-001B	Drinking Water	12/21/2016 13:10	12/22/2016 21:00	Collected by Client
2197885002	DW-001A	Drinking Water	12/21/2016 13:15	12/22/2016 21:00	Collected by Client
2197885003	DW-001	Drinking Water	12/21/2016 13:20	12/22/2016 21:00	Collected by Client

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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2197885 2016-CALVERT CITGO/5977

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 preformed 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”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885001** Date Collected: 12/21/2016 13:10 Matrix: Drinking Water

Sample ID: **DW-001B** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/L	5.0	2.2	EPA 524.2		12/27/16 17:01	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:01	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:01	DD	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		12/27/16 17:01	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/27/16 17:01	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/27/16 17:01	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:01	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:01	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:01	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:01	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:01	DD	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		12/27/16 17:01	DD	A
tert-Butyl Alcohol	ND		ug/L	5.0	1.4	EPA 524.2		12/27/16 17:01	DD	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:01	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:01	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/27/16 17:01	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:01	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:01	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:01	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:01	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/27/16 17:01	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:01	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:01	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:01	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:01	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/27/16 17:01	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:01	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/27/16 17:01	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:01	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:01	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:01	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/27/16 17:01	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/27/16 17:01	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:01	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:01	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:01	DD	A

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885001** Date Collected: 12/21/2016 13:10 Matrix: Drinking Water

Sample ID: **DW-001B** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:01	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:01	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:01	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:01	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2			12/27/16 17:01	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2			12/27/16 17:01	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:01	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2			12/27/16 17:01	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2			12/27/16 17:01	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2			12/27/16 17:01	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2			12/27/16 17:01	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:01	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2			12/27/16 17:01	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2			12/27/16 17:01	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:01	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2			12/27/16 17:01	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:01	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2			12/27/16 17:01	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2			12/27/16 17:01	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2			12/27/16 17:01	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2			12/27/16 17:01	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2			12/27/16 17:01	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:01	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2			12/27/16 17:01	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2			12/27/16 17:01	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2			12/27/16 17:01	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/27/16 17:01	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:01	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2			12/27/16 17:01	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2			12/27/16 17:01	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2			12/27/16 17:01	DD	A
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2			12/27/16 17:01	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2			12/27/16 17:01	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2			12/27/16 17:01	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:01	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2			12/27/16 17:01	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2			12/27/16 17:01	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:01	DD	A

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885001** Date Collected: 12/21/2016 13:10 Matrix: Drinking Water

Sample ID: **DW-001B** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			12/27/16 17:01	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/27/16 17:01	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:01	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:01	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			12/27/16 17:01	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			12/27/16 17:01	DD	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			12/27/16 17:01	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:01	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			12/27/16 17:01	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:01	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/27/16 17:01	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:01	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			12/27/16 17:01	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:01	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			12/27/16 17:01	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			12/27/16 17:01	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:01	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:01	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:01	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:01	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:01	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:01	DD	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	79.7		%	70 - 130	EPA 524.2			12/27/16 17:01	DD	A
4-Bromofluorobenzene (S)	89.1		%	70 - 130	EPA 524.2			12/27/16 17:01	DD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885002** Date Collected: 12/21/2016 13:15 Matrix: Drinking Water

Sample ID: **DW-001A** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	3.5J	J	ug/L	5.0	2.2	EPA 524.2		12/27/16 17:25	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:25	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:25	DD	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		12/27/16 17:25	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/27/16 17:25	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/27/16 17:25	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:25	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:25	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:25	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:25	DD	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		12/27/16 17:25	DD	A
tert-Butyl Alcohol	ND		ug/L	5.0	1.4	EPA 524.2		12/27/16 17:25	DD	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:25	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:25	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/27/16 17:25	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:25	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:25	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:25	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:25	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/27/16 17:25	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:25	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:25	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:25	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/27/16 17:25	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:25	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/27/16 17:25	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:25	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:25	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:25	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/27/16 17:25	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/27/16 17:25	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:25	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:25	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:25	DD	A

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885002** Date Collected: 12/21/2016 13:15 Matrix: Drinking Water

Sample ID: **DW-001A** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:25	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:25	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:25	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:25	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:25	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:25	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:25	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:25	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:25	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/27/16 17:25	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/27/16 17:25	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:25	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/27/16 17:25	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:25	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/27/16 17:25	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:25	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:25	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/27/16 17:25	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:25	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/27/16 17:25	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:25	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/27/16 17:25	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:25	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:25	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/27/16 17:25	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:25	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/27/16 17:25	DD	A
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2		12/27/16 17:25	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/27/16 17:25	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/27/16 17:25	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:25	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/27/16 17:25	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/27/16 17:25	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:25	DD	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885002** Date Collected: 12/21/2016 13:15 Matrix: Drinking Water

Sample ID: **DW-001A** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			12/27/16 17:25	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/27/16 17:25	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:25	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:25	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			12/27/16 17:25	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			12/27/16 17:25	DD	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			12/27/16 17:25	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:25	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			12/27/16 17:25	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:25	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/27/16 17:25	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:25	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			12/27/16 17:25	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:25	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			12/27/16 17:25	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			12/27/16 17:25	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:25	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:25	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:25	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:25	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:25	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:25	DD	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	73.5		%	70 - 130	EPA 524.2			12/27/16 17:25	DD	A
4-Bromofluorobenzene (S)	85.2		%	70 - 130	EPA 524.2			12/27/16 17:25	DD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885003** Date Collected: 12/21/2016 13:20 Matrix: Drinking Water

Sample ID: **DW-001** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	3.6J	J	ug/L	5.0	2.2	EPA 524.2		12/27/16 17:48	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:48	DD	A
tert-Amyl methyl ether	0.59		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:48	DD	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		12/27/16 17:48	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/27/16 17:48	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/27/16 17:48	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:48	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:48	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:48	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:48	DD	A
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2		12/27/16 17:48	DD	A
tert-Butyl Alcohol	ND		ug/L	5.0	1.4	EPA 524.2		12/27/16 17:48	DD	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:48	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:48	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/27/16 17:48	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:48	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:48	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/27/16 17:48	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:48	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/27/16 17:48	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:48	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:48	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:48	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/27/16 17:48	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:48	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/27/16 17:48	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:48	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:48	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:48	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/27/16 17:48	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/27/16 17:48	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/27/16 17:48	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:48	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:48	DD	A

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885003** Date Collected: 12/21/2016 13:20 Matrix: Drinking Water

Sample ID: **DW-001** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:48	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:48	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:48	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:48	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:48	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:48	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:48	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:48	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:48	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/27/16 17:48	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/27/16 17:48	DD	A
Diisopropyl ether	0.51		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:48	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/27/16 17:48	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/27/16 17:48	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/27/16 17:48	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/27/16 17:48	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/27/16 17:48	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/27/16 17:48	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/27/16 17:48	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/27/16 17:48	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/27/16 17:48	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/27/16 17:48	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/27/16 17:48	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/27/16 17:48	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/27/16 17:48	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/27/16 17:48	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/27/16 17:48	DD	A
Methyl t-Butyl Ether	40.8		ug/L	2.5	0.45	EPA 524.2		12/28/16 17:47	DD	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/27/16 17:48	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/27/16 17:48	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/27/16 17:48	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/27/16 17:48	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/27/16 17:48	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/27/16 17:48	DD	A

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ANALYTICAL RESULTS

Workorder: 2197885 2016-CALVERT CITGO/5977

Lab ID: **2197885003** Date Collected: 12/21/2016 13:20 Matrix: Drinking Water

Sample ID: **DW-001** Date Received: 12/22/2016 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			12/27/16 17:48	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/27/16 17:48	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:48	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:48	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			12/27/16 17:48	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			12/27/16 17:48	DD	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			12/27/16 17:48	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:48	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			12/27/16 17:48	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:48	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/27/16 17:48	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/27/16 17:48	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			12/27/16 17:48	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:48	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			12/27/16 17:48	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			12/27/16 17:48	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:48	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/27/16 17:48	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			12/27/16 17:48	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			12/27/16 17:48	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			12/27/16 17:48	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			12/27/16 17:48	DD	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	77.6		%	70 - 130	EPA 524.2			12/27/16 17:48	DD	A
1,2-Dichlorobenzene-d4 (S)	73.4		%	70 - 130	EPA 524.2			12/28/16 17:47	DD	B
4-Bromofluorobenzene (S)	80.5		%	70 - 130	EPA 524.2			12/28/16 17:47	DD	B
4-Bromofluorobenzene (S)	86.8		%	70 - 130	EPA 524.2			12/27/16 17:48	DD	A

Susan J. Scherer

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Project Coordinator

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

SB

Courier:
Tracking #:

* 2 1 9 7 8 8 5 *

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#: 13527
Project Name/#: Calvert Citgo / 5977
ALS Quote #:

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

Email? [X] Y J Manuel@repsg.com
Fax? [X] Y No.: 215-729-1557

***Container Type: VOA
***Container Size: 40 mL
*** Preservative: HCl/HCl

ANALYSES/METHOD REQUESTED: VOCs by 524.2 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 524.2 including fuel oxygenates
1	DW-001B	Post Filtration	12-21-16	1310	G	DW	2
2	DW-001A	Mid Filtration	12-21-16	1315	G	DW	2
3	DW-001	Pre Filtration	12-21-16	1320	G	DW	2
4							
5							
6							
7							
8							

(completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 1 °C
Therm. ID: 352
No. of Coolers:
Notes:

Circle appropriate Y or N.

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

[signature] 12/22/16 2332

SAMPLED BY (Please Print): Hagay Haut

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] REPSG	12/22	0930	2	[signature]	122216	0930
3	[signature]	122216	1700	4	[signature]	12-22	1700
5	[signature]	12/22	2100	6	[signature]	12/22	2100
7				8			
9				10			

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

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=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 01-2013

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	01/21/2016	02/29/2016	03/24/2016	04/14/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
2-Nitropropane	ug/l	**		<0.8U	6.7	<0.8U	<0.8U	<0.8U	<0.8U
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Methyl iodide	ug/l	**		0.34J	<0.19U	0.33J	<0.19U	<0.19U	<0.19U
Tert-Amyl Methyl Ether	ug/l	**		3.5	3	3.3	3	3.5	3.5
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
1,2-Dichloroethane	ug/l	5		**13.3**	**13**	**11.9**	<0.15U	**12.6**	**11.9**
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		14.6	21.5	13	15.1	21.8	8
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	0.11J	<0.07U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	0.28J	<0.21U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		6.2	5.8	5.1	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	0.24J	<0.22U

** No Applicable Regulatory Standard

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

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value.< = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	01/21/2016	02/29/2016	03/24/2016	04/14/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Methyl ethyl ketone	ug/l	**		11.7	3.4	6.2	2.8	10.6	6
Methyl tert-butyl ether	ug/l	20		**431**	**451**	**368**	**486**	**479**	**458**
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	0.11J	0.11J	<0.1U	<0.1U
Tert-Amyl alcohol	ug/l	**		<1.6U	152E	<160U	141E	151E	<80U
tert-Butylalcohol	ug/l	**		3520	4450	3560	4190	4480	4780
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	1.2J	<0.81U	0.88J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U	<0.8U	<0.8U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Chlorine	ug/l	4000		-	17J	<9U	-	-	6.7J
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	2.6	3.5	4	4	3.8
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
1,2-Dichloroethane	ug/l	5		**11.4**	**10.8**	<0.15U	**12.7**	**13.3**	**12.6**
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		<2.2U	37.1	26.7	20.7	32.4	12.5
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	0.1J	<0.07U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
Diethyl ether	ug/l	**		<0.21U	<0.21U	0.25J	<0.21U	0.3J	<0.21U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	5.7	<0.21U	<0.21U	7	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	0.18J	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		11	6.8	7	7.9	5.4	6.9
Methyl tert-butyl ether	ug/l	20		**369**	**480**	**424**	**455**	**481**	**433**
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004C (Pre-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C	DW-004C
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U	0.12J	<0.1U
Tert-Amyl alcohol	ug/l	**		<160U	<160U	223J	<160U	<160U	197J
tert-Butylalcohol	ug/l	**		3400	5430	4410	4440	4550	4140
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	<0.81U	1.1J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	0.13J	<0.11U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U	0.13J	<0.11U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004I (Mid-Carbon 1; 2794 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I
			Date:	01/21/2016	02/29/2016	03/24/2016	04/14/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Isopropanol	ug/l	**		<3.9U	16.7J	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	0.33J	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		11.3	6.2	12.3	<2.2U	20.9	7.4
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		12.9	<1.3U	5.5	<1.3U	11.8	5.7
Methyl tert-butyl ether	ug/l	20		**253**	**333**	**302**	**440**	**511**	**477**
Tert-Amyl alcohol	ug/l	**		<1.6U	146E	<160U	<80U	189E	156J
tert-Butylalcohol	ug/l	**		3520	4050	3830	4480	4960	4660
Tetrahydrofuran	ug/l	**		2.3J	2.1J	1.5J	<0.81U	1.4J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004I (Mid-Carbon 1; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I	DW-004I
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	<9U	<9U	-	-	6.7J
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		0.27J	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		16.4	11.2	8.2	12.8	40.1	16.3
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		7.5	7.7	5.1	7.2	5.2	9.2
Methyl tert-butyl ether	ug/l	20		**374**	**608**	0.61	0.67	1.6	2.1
Tert-Amyl alcohol	ug/l	**		<160U	187J	36.6	52.6	68	75.6
tert-Butylalcohol	ug/l	**		1860	5570	4620	4300	5640	4130
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	2.2J	2.5J	2.8	1.6J
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004J (Mid-Carbon 2; 2794 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J
			Date:	01/21/2016	02/29/2016	03/24/2016	04/14/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	11J	<3.9U	<3.9U	4.2J	<3.9U
Methyl iodide	ug/l	**		0.23J	<0.19U	0.28J	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		10.3	5.3	8.5	4.4J	14	7.1
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		12	<1.3U	5.2	<1.3U	11	6.8
Methyl tert-butyl ether	ug/l	20		0.54	1.4	2.2	12.9	**63.5**	**108**
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	42.9	101	160E	191J
tert-Butylalcohol	ug/l	**		3560	4380	3680	4470	5300	4790
Tetrahydrofuran	ug/l	**		4	3.3	2.2J	2.7	2.1J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004J (Mid-Carbon 2; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J	DW-004J
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		32.8	42.7	12.7	21.7	21.8	12.9
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.19J	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		8.4	7.3	5.6	7.4	6.1	8.2
Methyl tert-butyl ether	ug/l	20		**182**	**300**	**375**	**387**	**406**	**332**
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Tert-Amyl alcohol	ug/l	**		198J	<160U	280J	210	<160U	<160U
tert-Butylalcohol	ug/l	**		3480	5050	4370	3930	4880	3860
Tetrahydrofuran	ug/l	**		1.7J	<0.81U	1.3J	1.4J	2.1J	1.9J
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

** No Applicable Regulatory Standard

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REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004K (Post-Filtration; 2794 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K
			Date:	01/21/2016	02/29/2016	03/24/2016	04/14/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	5.7J	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	0.29J	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		10.4	3.1J	7.7	6.4	12.6	10.2
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	0.13J	<0.13U
Methyl ethyl ketone	ug/l	**		11.6	<1.3U	5.8	<1.3U	11.9	9.6
Methyl tert-butyl ether	ug/l	20		0.18J	<0.09U	0.14J	0.2J	0.81	0.35J
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
Tert-Amyl alcohol	ug/l	**		<1.6U	11.1	12.6	17.2	20.3	25.4
tert-Butylalcohol	ug/l	**		3240	4490	4180	5330	5180	5400
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		6.3	3.7	6.1	4.5	3.1	3.7
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

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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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-004K (Post-Filtration; 2794 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K	DW-004K
			Date:	07/20/2016	08/18/2016	09/16/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		19.1	14.7	7.6	5.9	13	9
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		9.8	7	5	<1.3U	4.7	6.6
Methyl tert-butyl ether	ug/l	20		0.74	0.99	<0.09U	0.65	0.5J	0.12J
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
Tert-Amyl alcohol	ug/l	**		9.7	26.6	<1.6U	6.6	7.7	4.6J
tert-Butylalcohol	ug/l	**		3780	5420	10.9	4320	5610	3820
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	2.5J	<0.81U	<0.81U	2.1J	1.6J
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U

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Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

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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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

December 7, 2016

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

Certificate of Analysis

Project Name:	**2016-CALVERT CITGO**	Workorder:	**2193094**
Purchase Order:	**13420**	Workorder ID:	**2016-CALVERT CITGO PROJECT/597**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Friday, December 2, 2016.

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 Ms. Susan J 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. Natalie Griffith , Ms. S Shourds

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2193094001	DW-004K	Drinking Water	12/1/2016 10:45	12/2/2016 20:20	Collected by Client
2193094002	DW-004J	Drinking Water	12/1/2016 10:50	12/2/2016 20:20	Collected by Client
2193094003	DW-004I	Drinking Water	12/1/2016 10:55	12/2/2016 20:20	Collected by Client
2193094004	DW-004C	Drinking Water	12/1/2016 11:00	12/2/2016 20:20	Collected by Client

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

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

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 preformed 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”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094001** Date Collected: 12/1/2016 10:45 Matrix: Drinking Water

Sample ID: **DW-004K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	9.0		ug/L	5.0	2.2	EPA 524.2		12/5/16 17:52	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 17:52	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
tert-Amyl Alcohol	4.6J	J	ug/L	5.0	1.6	EPA 524.2		12/5/16 17:52	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 17:52	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/5/16 17:52	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 17:52	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 17:52	DD	A
2-Butanone	6.6		ug/L	2.5	1.3	EPA 524.2		12/5/16 17:52	DD	A
tert-Butyl Alcohol	3820		ug/L	500	140	EPA 524.2		12/6/16 12:44	DD	C
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 17:52	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 17:52	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 17:52	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 17:52	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 17:52	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 17:52	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/5/16 17:52	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 17:52	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 17:52	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 17:52	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 17:52	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 17:52	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/5/16 17:52	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/5/16 17:52	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 17:52	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094001** Date Collected: 12/1/2016 10:45 Matrix: Drinking Water

Sample ID: **DW-004K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 17:52	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 17:52	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 17:52	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 17:52	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 17:52	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/5/16 17:52	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 17:52	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 17:52	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 17:52	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/5/16 17:52	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/5/16 17:52	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 17:52	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/5/16 17:52	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 17:52	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 17:52	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 17:52	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/5/16 17:52	DD	A
Methyl t-Butyl Ether	0.12J	J	ug/L	0.50	0.090	EPA 524.2		12/5/16 17:52	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/5/16 17:52	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/5/16 17:52	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/5/16 17:52	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/5/16 17:52	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094001** Date Collected: 12/1/2016 10:45 Matrix: Drinking Water

Sample ID: **DW-004K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/5/16 17:52	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 17:52	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 17:52	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 17:52	DD	A
Tetrahydrofuran	1.6J	J	ug/L	2.5	0.81	EPA 524.2		12/5/16 17:52	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 17:52	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/5/16 17:52	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 17:52	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 17:52	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 17:52	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 17:52	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/5/16 17:52	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 17:52	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 17:52	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 17:52	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 17:52	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 17:52	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	81.1		%	70 - 130		EPA 524.2		12/5/16 17:52	DD	A
1,2-Dichlorobenzene-d4 (S)	78.6		%	70 - 130		EPA 524.2		12/6/16 12:44	DD	C
4-Bromofluorobenzene (S)	85.5		%	70 - 130		EPA 524.2		12/6/16 12:44	DD	C
4-Bromofluorobenzene (S)	85.7		%	70 - 130		EPA 524.2		12/5/16 17:52	DD	A
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094002** Date Collected: 12/1/2016 10:50 Matrix: Drinking Water

Sample ID: **DW-004J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	12.9		ug/L	5.0	2.2	EPA 524.2		12/5/16 18:16	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 18:16	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
tert-Amyl Alcohol	ND		ug/L	500	160	EPA 524.2		12/6/16 13:08	DD	C
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:16	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/5/16 18:16	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:16	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:16	DD	A
2-Butanone	8.2		ug/L	2.5	1.3	EPA 524.2		12/5/16 18:16	DD	A
tert-Butyl Alcohol	3860		ug/L	500	140	EPA 524.2		12/6/16 13:08	DD	C
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:16	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:16	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:16	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:16	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 18:16	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:16	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/5/16 18:16	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:16	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:16	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 18:16	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 18:16	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:16	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/5/16 18:16	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/5/16 18:16	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:16	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094002** Date Collected: 12/1/2016 10:50 Matrix: Drinking Water

Sample ID: **DW-004J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:16	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:16	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:16	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:16	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 18:16	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/5/16 18:16	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 18:16	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:16	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:16	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/5/16 18:16	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/5/16 18:16	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:16	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/5/16 18:16	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:16	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 18:16	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:16	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/5/16 18:16	DD	A
Methyl t-Butyl Ether	332		ug/L	50.0	9.0	EPA 524.2		12/6/16 13:08	DD	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/5/16 18:16	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/5/16 18:16	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/5/16 18:16	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/5/16 18:16	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094002** Date Collected: 12/1/2016 10:50 Matrix: Drinking Water

Sample ID: **DW-004J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/5/16 18:16	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:16	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:16	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 18:16	DD	A
Tetrahydrofuran	1.9J	J	ug/L	2.5	0.81	EPA 524.2		12/5/16 18:16	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:16	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/5/16 18:16	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:16	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:16	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:16	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:16	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/5/16 18:16	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:16	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:16	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:16	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:16	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:16	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By* *Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	73.8		%	70 - 130		EPA 524.2		12/6/16 13:08	DD	C
1,2-Dichlorobenzene-d4 (S)	80.3		%	70 - 130		EPA 524.2		12/5/16 18:16	DD	A
4-Bromofluorobenzene (S)	81.5		%	70 - 130		EPA 524.2		12/6/16 13:08	DD	C
4-Bromofluorobenzene (S)	86		%	70 - 130		EPA 524.2		12/5/16 18:16	DD	A
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

Ms. Susan J Scherer
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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094003** Date Collected: 12/1/2016 10:55 Matrix: Drinking Water

Sample ID: **DW-004I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	16.3		ug/L	5.0	2.2	EPA 524.2		12/5/16 18:40	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 18:40	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
tert-Amyl Alcohol	75.6		ug/L	5.0	1.6	EPA 524.2		12/5/16 18:40	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:40	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/5/16 18:40	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:40	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:40	DD	A
2-Butanone	9.2		ug/L	2.5	1.3	EPA 524.2		12/5/16 18:40	DD	A
tert-Butyl Alcohol	4130		ug/L	500	140	EPA 524.2		12/6/16 13:32	DD	C
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:40	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:40	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:40	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:40	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 18:40	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:40	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/5/16 18:40	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:40	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:40	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 18:40	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 18:40	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:40	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/5/16 18:40	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/5/16 18:40	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:40	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094003** Date Collected: 12/1/2016 10:55 Matrix: Drinking Water

Sample ID: **DW-004I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:40	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:40	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:40	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:40	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 18:40	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/5/16 18:40	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 18:40	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:40	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 18:40	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/5/16 18:40	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/5/16 18:40	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 18:40	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/5/16 18:40	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:40	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 18:40	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:40	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/5/16 18:40	DD	A
Methyl t-Butyl Ether	2.1		ug/L	0.50	0.090	EPA 524.2		12/5/16 18:40	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/5/16 18:40	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/5/16 18:40	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/5/16 18:40	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/5/16 18:40	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094003** Date Collected: 12/1/2016 10:55 Matrix: Drinking Water

Sample ID: **DW-004I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/5/16 18:40	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 18:40	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 18:40	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 18:40	DD	A
Tetrahydrofuran	1.6J	J	ug/L	2.5	0.81	EPA 524.2		12/5/16 18:40	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:40	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/5/16 18:40	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 18:40	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 18:40	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 18:40	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 18:40	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/5/16 18:40	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 18:40	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 18:40	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 18:40	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 18:40	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 18:40	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By* *Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	77.8		%	70 - 130		EPA 524.2		12/5/16 18:40	DD	A
1,2-Dichlorobenzene-d4 (S)	80.7		%	70 - 130		EPA 524.2		12/6/16 13:32	DD	C
4-Bromofluorobenzene (S)	85.7		%	70 - 130		EPA 524.2		12/6/16 13:32	DD	C
4-Bromofluorobenzene (S)	85		%	70 - 130		EPA 524.2		12/5/16 18:40	DD	A
WET CHEMISTRY										
Chlorine, Total Residual	0.0067J	J,1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094004** Date Collected: 12/1/2016 11:00 Matrix: Drinking Water

Sample ID: **DW-004C** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	12.5		ug/L	5.0	2.2	EPA 524.2		12/5/16 19:04	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 19:04	DD	A
tert-Amyl methyl ether	3.8		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
tert-Amyl Alcohol	197J	J	ug/L	500	160	EPA 524.2		12/6/16 13:56	DD	C
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:04	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/5/16 19:04	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:04	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:04	DD	A
2-Butanone	6.9		ug/L	2.5	1.3	EPA 524.2		12/5/16 19:04	DD	A
tert-Butyl Alcohol	4140		ug/L	500	140	EPA 524.2		12/6/16 13:56	DD	C
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:04	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:04	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:04	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:04	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 19:04	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:04	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/5/16 19:04	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:04	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:04	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 19:04	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 19:04	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:04	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/5/16 19:04	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/5/16 19:04	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:04	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A

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ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094004** Date Collected: 12/1/2016 11:00 Matrix: Drinking Water

Sample ID: **DW-004C** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
1,2-Dichloroethane	12.6		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:04	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:04	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:04	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:04	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 19:04	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/5/16 19:04	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 19:04	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:04	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:04	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/5/16 19:04	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/5/16 19:04	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:04	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/5/16 19:04	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:04	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 19:04	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:04	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/5/16 19:04	DD	A
Methyl t-Butyl Ether	433		ug/L	50.0	9.0	EPA 524.2		12/6/16 13:56	DD	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/5/16 19:04	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/5/16 19:04	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/5/16 19:04	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/5/16 19:04	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	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: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2193094 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193094004** Date Collected: 12/1/2016 11:00 Matrix: Drinking Water

Sample ID: **DW-004C** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/5/16 19:04	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:04	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:04	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 19:04	DD	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2		12/5/16 19:04	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:04	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/5/16 19:04	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:04	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:04	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:04	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:04	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/5/16 19:04	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:04	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:04	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:04	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:04	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:04	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	74.3		%	70 - 130		EPA 524.2		12/6/16 13:56	DD	C
1,2-Dichlorobenzene-d4 (S)	79.2		%	70 - 130		EPA 524.2		12/5/16 19:04	DD	A
4-Bromofluorobenzene (S)	85.6		%	70 - 130		EPA 524.2		12/5/16 19:04	DD	A
4-Bromofluorobenzene (S)	82.7		%	70 - 130		EPA 524.2		12/6/16 13:56	DD	C
WET CHEMISTRY										
Chlorine, Total Residual	0.0067J	J,1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

Ms. Susan J Scherer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2193094001	1	DW-004K	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193094002	1	DW-004J	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193094003	1	DW-004I	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193094004	1	DW-004C	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				

OFF SITE

House# 2794

SJB

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Courier:

Tracking #:

2193094

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#: 13420

Project Name/#: Calvert Citgo /5977

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [X] Y jmanuel@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	ANALYSES/METHOD REQUESTED: VOC's by 524.2 incl. 1,4 dioxane	ANALYSES/METHOD REQUESTED: Residual Chlorine	Enter Number of Containers Per Analysis										
***Container Type						Voa	Poly											
***Container Size						40ml	500ml											
*** Preservative						HCl/4°C	UP											
1 DW-004K	Post Filtration	12-1-16	1045	G	DW	3	1											
2 DW-004J	Mid Carbon 2	12-1-16	1050	G	DW	3	1											
3 DW-004I	Mid Carbon 1	12-1-16	1055	G	DW	3	1											
4 DW-004C	Pre Filtration	12-1-16	1100	G	DW	3	1											
5																		
6																		
7																		
8	12-3-16 WSB																	

Cooler Temp: 1

Therm. ID: 318

No. of Coolers:

Notes:

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

Correct containers? N

Correct sample volume? N

Correct preservation? N

Headspace/Volatiles? N

SAMPLED BY (Please Print): DANG PHUNG

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Natalie Griffith	12/2/16	1210	2 Chris Faulkner	12216	1210
3 Chris Faulkner	12216	1745	4 DHL	12-2	1745
5 DHL	12-2	2020	6	12/2	2020
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

EXCEL PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES

[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite

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

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 01-2013

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Methyl iodide	ug/l	**		0.27J	<0.19U	0.33J	<0.19U	<0.19U	<0.19U
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	0.27J	<0.11U
1,2-Dichloroethane	ug/l	5		2.1	<0.15U	1.3	2.2	3.1	4
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		17.3	6	12.7	42.1	19.6	15.1
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	<0.07U	<0.07U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U	<0.18U	<0.18U
Diethyl ether	ug/l	**		<0.21U	<0.21U	0.46J	<0.21U	0.52	<0.21U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		1.8	0.64	<0.21U	1.5	2.1	2.5

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	0.17J	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	0.28J	<0.22U
Methyl ethyl ketone	ug/l	**		3.8	<1.3U	5.6	<1.3U	1.6J	6.3
Methyl tert-butyl ether	ug/l	20		**170**	**66.3**	**111**	**200**	**247**	**339**
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U	<0.1U	<0.1U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	24.3	41.8	49.6	77.6
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	1.4J	<0.81U	<0.81U	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	0.16J	<0.11U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	10J	<9U	-	-	<6U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		0.19J	0.26J	<0.11U	<0.11U	0.22J	<0.11U
1,2-Dichloroethane	ug/l	5		**6.1**	**6.8**	**7**	**7.4**	**5.8**	3.5
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		39.6	60.2	27.8	22.6	13.2	43.5
Benzene	ug/l	5		<0.07U	<0.07U	<0.07U	<0.07U	<0.07U	<0.07U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U	<0.18U	<0.18U
Diethyl ether	ug/l	**		0.4J	0.48J	0.34J	0.51	0.38J	<0.21U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		3	<0.21U	3.4	0.85	2.7	1.6
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.14J	<0.13U	<0.13U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005A (Pre-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A	DW-005A
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		7.1	9.3	6	7.5	<1.3U	5.7
Methyl tert-butyl ether	ug/l	20		**311**	8.1	**353**	**297**	**288**	**136**
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
sec-Butylbenzene	ug/l	**		<0.1U	0.11J	<0.1U	<0.1U	0.12J	<0.1U
Tert-Amyl alcohol	ug/l	**		107	76.9	105	88.7	83.4	43.1
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	<0.81U	2.1J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	0.12J	0.14J	<0.11U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005I (Mid-Carbon 1; 2802 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Methyl iodide	ug/l	**		<0.19U	<0.19U	0.3J	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	1	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
1,2-Dichloroethane	ug/l	5		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**		4J	3.8J	8.1	<2.2U	5.1	10
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	0.16J	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	6.2	<1.3U	<1.3U	6.5
Methyl tert-butyl ether	ug/l	20		1.8	3.7	4.7	10.5	**49.2**	**72.3E**
Tert-Amyl alcohol	ug/l	**		<1.6U	5.4	7.4	<1.6U	27	33.8
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	<0.81U	<0.81U	<0.81U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U

Constituent	Unit	*Standard	Location:	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	13J	<9U	-	-	10J
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	4.1	<0.15U	<0.15U	0.22J	0.17J
Volatile Organic Compounds (VOCs)									
1,1-Dichloroethane	ug/l	**		<0.11U	0.19J	<0.11U	<0.11U	<0.11U	<0.11U
1,2,3-Trichlorobenzene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
1,2-Dichloroethane	ug/l	5		<0.15U	**7.1**	<0.15U	<0.15U	<0.15U	<0.15U
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
2-Hexanone	ug/l	**		<0.82U	<0.82U	<0.82U	<0.82U	<0.82U	<0.82U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005I (Mid-Carbon 1; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I	DW-005I
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Acetone	ug/l	**		8.5	19.7	22	16.2	15.9	<2.2U
Diethyl ether	ug/l	**		<0.21U	0.42J	<0.21U	<0.21U	<0.21U	<0.21U
Isopropyl Ether	ug/l	**		<0.21U	4.4	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.21J	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	8.1	5.9	7.9	<1.3U	4.7
Methyl tert-butyl ether	ug/l	20		**76.4**	**497**	**120**	**164**	**182**	**172**
Tert-Amyl alcohol	ug/l	**		55.5	87.3	65.6	73.2	70.3	64.9
Tetrahydrofuran	ug/l	**		<0.81U	<0.81U	<0.81U	1.5J	1.6J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U	<0.15U	<0.15U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005J (Mid-Carbon 2; 2802 NE Rd.)

Analytical Chemistry Report

Matrix: Drinking Water

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Methyl iodide	ug/l	**		0.29J	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		5.7	7.4	8.3	<2.2U	7.3	10.5
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	0.24J	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	0.18J	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	5.3	<1.3U	2.4J	7.2
Methyl tert-butyl ether	ug/l	20		0.64	0.7	0.67	1.1	3	4
Tert-Amyl alcohol	ug/l	**		<1.6U	5.4	6.1	6.2	9.8	10.7
tert-Butylalcohol	ug/l	**		496	359	261	349	775	668
Tetrahydrofuran	ug/l	**		5.3	3.1	3.5	3.2	2.3J	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U	<0.24U	<0.24U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005J (Mid-Carbon 2; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J	DW-005J
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	<9U	<9U	-	-	10J
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	0.26J	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U	<0.23U	<0.23U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	14.5	<4U	<4U
Acetone	ug/l	**		14.7	22.3	24.9	13.5	6.2	8.6
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.22J	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		6.3	7.2	5.8	6.9	<1.3U	5.4
Methyl tert-butyl ether	ug/l	20		4.9	12.8	15.6	**25**	**38.7**	**33.3**
Tert-Amyl alcohol	ug/l	**		12.5	15.5	27.6	37.6	<1.6U	40.9
tert-Butylalcohol	ug/l	**		688	2160	1800	1910	1750	1170
Tetrahydrofuran	ug/l	**		1.6J	<0.81U	<0.81U	<0.81U	3.1	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	0.27J	0.25J	<0.24U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005K (Post-Filtration; 2802 NE Rd.)

Analytical Chemistry Report

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977**

Matrix: Drinking Water

Sample Dates: 01/21/2016-12/01/2016

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	01/21/2016	02/29/2016	03/24/2016	04/15/2016	05/20/2016	06/17/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		<9U	-	-	<9U	-	-
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		0.25J	<0.19U	0.34J	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		4J	4J	7.9	4.3J	8.7	10.2
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	5.6	<1.3U	1.9J	7.8
Methyl tert-butyl ether	ug/l	20		<0.09U	<0.09U	<0.09U	<0.09U	<0.09U	<0.09U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
tert-Butylalcohol	ug/l	**		706	480	379	357	764	615
Tetrahydrofuran	ug/l	**		10.5	6.6	5.7	8.4	4.3	3.2
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	<0.14U	<0.14U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

REPSG
React Environmental
Professional Services Group, Inc.

Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005K (Post-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
Not Otherwise Specified									
Chlorine	ug/l	4000		-	<9U	<9U	-	-	6.7J
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U	<3.9U	<3.9U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
n-Hexane	ug/l	**		<0.22U	<0.22U	4	<0.22U	<0.22U	<0.22U
Volatile Organic Compounds (VOCs)									
1,4-Dioxane	ug/l	**		<4U	<4U	<4U	<4U	<4U	<4U
Acetone	ug/l	**		15.3	18.1	22.5	16.2	6.3	6.1
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U	<0.21U	<0.21U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U	<0.19U	<0.19U
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	0.24J	<0.13U	<0.13U
Methyl ethyl ketone	ug/l	**		8.6	10.2	5.8	7.4	<1.3U	5.4
Methyl tert-butyl ether	ug/l	20		<0.09U	<0.09U	<0.09U	<0.09U	<0.09U	<0.09U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U	<0.13U	<0.13U
tert-Butylalcohol	ug/l	**		810	2020	707	1900	1710	1630
Tetrahydrofuran	ug/l	**		2.5J	1.9J	<0.81U	1.6J	4.4	<0.81U
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U	<0.12U	<0.12U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)									

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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Last Twelve Months of Results for Compounds Known to Have Detections in Sample DW-005K (Post-Filtration; 2802 NE Rd.)

Analytical Chemistry Report **Matrix: Drinking Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Dates: 01/21/2016-12/01/2016**

Regulatory Standard*:

Maryland Department of the Environment (MDE) Modified Drinking Water Standards. Based on EPA National Primary Drinking Water Standards: Office of Water (June 2003) and the most conservative of EPA Drinking Water Advisory levels: Office of Water (April 2012).

Constituent	Unit	*Standard	Location:	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K	DW-005K
			Date:	07/20/2016	08/18/2016	09/28/2016	10/21/2016	11/10/2016	12/01/2016
			Depth (ft):	0	0	0	0	0	0
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U	0.14J	<0.14U

** 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. F1 = MS and/or MSD Recovery is outside acceptable limits.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

December 7, 2016

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

Certificate of Analysis

Project Name:	**2016-CALVERT CITGO**	Workorder:	**2193099**
Purchase Order:	**13421**	Workorder ID:	**2016-CALVERT CITGO PROJECT/597**

Dear Mr. Manuel:

Enclosed are the analytical results for samples received by the laboratory on Friday, December 2, 2016.

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 Ms. Susan J 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. Natalie Griffith , Ms. S Shourds

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2193099001	DW-005K	Drinking Water	12/1/2016 12:30	12/2/2016 20:20	Collected by Client
2193099002	DW-005J	Drinking Water	12/1/2016 12:40	12/2/2016 20:20	Collected by Client
2193099003	DW-005I	Drinking Water	12/1/2016 12:50	12/2/2016 20:20	Collected by Client
2193099004	DW-005A	Drinking Water	12/1/2016 13:00	12/2/2016 20:20	Collected by Client

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SAMPLE SUMMARY

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

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 preformed 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”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	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
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099001** Date Collected: 12/1/2016 12:30 Matrix: Drinking Water

Sample ID: **DW-005K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	6.1		ug/L	5.0	2.2	EPA 524.2		12/5/16 19:28	DD	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 19:28	DD	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2		12/5/16 19:28	DD	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:28	DD	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/5/16 19:28	DD	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:28	DD	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:28	DD	A
2-Butanone	5.4		ug/L	2.5	1.3	EPA 524.2		12/5/16 19:28	DD	A
tert-Butyl Alcohol	1630		ug/L	250	70.0	EPA 524.2		12/6/16 14:20	DD	C
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:28	DD	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:28	DD	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:28	DD	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:28	DD	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/5/16 19:28	DD	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:28	DD	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/5/16 19:28	DD	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:28	DD	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:28	DD	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 19:28	DD	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 19:28	DD	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:28	DD	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/5/16 19:28	DD	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/5/16 19:28	DD	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:28	DD	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099001** Date Collected: 12/1/2016 12:30 Matrix: Drinking Water

Sample ID: **DW-005K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:28	DD	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:28	DD	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:28	DD	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:28	DD	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 19:28	DD	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/5/16 19:28	DD	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/5/16 19:28	DD	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:28	DD	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/5/16 19:28	DD	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/5/16 19:28	DD	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/5/16 19:28	DD	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/5/16 19:28	DD	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/5/16 19:28	DD	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:28	DD	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/5/16 19:28	DD	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:28	DD	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/5/16 19:28	DD	A
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2		12/5/16 19:28	DD	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/5/16 19:28	DD	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/5/16 19:28	DD	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/5/16 19:28	DD	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/5/16 19:28	DD	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099001** Date Collected: 12/1/2016 12:30 Matrix: Drinking Water

Sample ID: **DW-005K** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/5/16 19:28	DD	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/5/16 19:28	DD	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/5/16 19:28	DD	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/5/16 19:28	DD	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2		12/5/16 19:28	DD	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:28	DD	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/5/16 19:28	DD	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/5/16 19:28	DD	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/5/16 19:28	DD	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/5/16 19:28	DD	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/5/16 19:28	DD	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/5/16 19:28	DD	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/5/16 19:28	DD	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/5/16 19:28	DD	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/5/16 19:28	DD	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/5/16 19:28	DD	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/5/16 19:28	DD	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared* *By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.1		%	70 - 130		EPA 524.2		12/5/16 19:28	DD	A
1,2-Dichlorobenzene-d4 (S)	75		%	70 - 130		EPA 524.2		12/6/16 14:20	DD	C
4-Bromofluorobenzene (S)	81.2		%	70 - 130		EPA 524.2		12/5/16 19:28	DD	A
4-Bromofluorobenzene (S)	88.5		%	70 - 130		EPA 524.2		12/6/16 14:20	DD	C
WET CHEMISTRY										
Chlorine, Total Residual	0.0067J	J,1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099002** Date Collected: 12/1/2016 12:40 Matrix: Drinking Water

Sample ID: **DW-005J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	8.6		ug/L	5.0	2.2	EPA 524.2			12/6/16 07:04	CJG	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2			12/6/16 07:04	CJG	A
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2			12/6/16 07:04	CJG	A
tert-Amyl Alcohol	40.9		ug/L	5.0	1.6	EPA 524.2			12/6/16 07:04	CJG	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2			12/6/16 07:04	CJG	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2			12/6/16 07:04	CJG	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2			12/6/16 07:04	CJG	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2			12/6/16 07:04	CJG	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:04	CJG	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:04	CJG	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2			12/6/16 07:04	CJG	A
2-Butanone	5.4		ug/L	2.5	1.3	EPA 524.2			12/6/16 07:04	CJG	A
tert-Butyl Alcohol	1170		ug/L	100	28.0	EPA 524.2			12/7/16 02:42	CJG	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2			12/6/16 07:04	CJG	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2			12/6/16 07:04	CJG	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/6/16 07:04	CJG	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2			12/6/16 07:04	CJG	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2			12/6/16 07:04	CJG	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2			12/6/16 07:04	CJG	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/6/16 07:04	CJG	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2			12/6/16 07:04	CJG	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2			12/6/16 07:04	CJG	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2			12/6/16 07:04	CJG	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2			12/6/16 07:04	CJG	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:04	CJG	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2			12/6/16 07:04	CJG	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:04	CJG	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2			12/6/16 07:04	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:04	CJG	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2			12/6/16 07:04	CJG	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2			12/6/16 07:04	CJG	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2			12/6/16 07:04	CJG	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2			12/6/16 07:04	CJG	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2			12/6/16 07:04	CJG	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:04	CJG	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:04	CJG	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099002** Date Collected: 12/1/2016 12:40 Matrix: Drinking Water

Sample ID: **DW-005J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:04	CJG	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:04	CJG	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:04	CJG	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:04	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:04	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:04	CJG	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:04	CJG	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:04	CJG	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:04	CJG	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:04	CJG	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:04	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:04	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:04	CJG	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:04	CJG	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:04	CJG	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/6/16 07:04	CJG	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:04	CJG	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/6/16 07:04	CJG	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:04	CJG	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:04	CJG	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:04	CJG	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/6/16 07:04	CJG	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:04	CJG	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/6/16 07:04	CJG	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:04	CJG	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/6/16 07:04	CJG	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:04	CJG	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:04	CJG	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:04	CJG	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:04	CJG	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/6/16 07:04	CJG	A
Methyl t-Butyl Ether	33.3		ug/L	10.0	1.8	EPA 524.2		12/7/16 02:42	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/6/16 07:04	CJG	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/6/16 07:04	CJG	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:04	CJG	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/6/16 07:04	CJG	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/6/16 07:04	CJG	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:04	CJG	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099002** Date Collected: 12/1/2016 12:40 Matrix: Drinking Water

Sample ID: **DW-005J** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			12/6/16 07:04	CJG	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/6/16 07:04	CJG	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:04	CJG	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:04	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			12/6/16 07:04	CJG	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			12/6/16 07:04	CJG	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			12/6/16 07:04	CJG	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			12/6/16 07:04	CJG	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			12/6/16 07:04	CJG	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:04	CJG	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/6/16 07:04	CJG	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/6/16 07:04	CJG	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			12/6/16 07:04	CJG	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			12/6/16 07:04	CJG	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			12/6/16 07:04	CJG	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			12/6/16 07:04	CJG	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:04	CJG	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:04	CJG	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:04	CJG	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:04	CJG	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			12/6/16 07:04	CJG	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			12/6/16 07:04	CJG	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	78.3		%	70 - 130		EPA 524.2			12/6/16 07:04	CJG	A
1,2-Dichlorobenzene-d4 (S)	76.9		%	70 - 130		EPA 524.2			12/7/16 02:42	CJG	B
4-Bromofluorobenzene (S)	89.2		%	70 - 130		EPA 524.2			12/7/16 02:42	CJG	B
4-Bromofluorobenzene (S)	91.9		%	70 - 130		EPA 524.2			12/6/16 07:04	CJG	A
WET CHEMISTRY											
Chlorine, Total Residual	0.010J	J,1	mg/L	0.10	0.006	S4500ClG-00			12/4/16 20:52	MSA	E

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099003** Date Collected: 12/1/2016 12:50 Matrix: Drinking Water

Sample ID: **DW-005I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/L	5.0	2.2	EPA 524.2		12/6/16 07:28	CJG	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/6/16 07:28	CJG	A
tert-Amyl methyl ether	0.17J	J	ug/L	0.50	0.15	EPA 524.2		12/6/16 07:28	CJG	A
tert-Amyl Alcohol	64.9		ug/L	5.0	1.6	EPA 524.2		12/6/16 07:28	CJG	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/6/16 07:28	CJG	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/6/16 07:28	CJG	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:28	CJG	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:28	CJG	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:28	CJG	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:28	CJG	A
2-Butanone	4.7		ug/L	2.5	1.3	EPA 524.2		12/6/16 07:28	CJG	A
tert-Butyl Alcohol	1420		ug/L	250	70.0	EPA 524.2		12/7/16 03:06	CJG	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:28	CJG	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:28	CJG	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:28	CJG	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:28	CJG	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:28	CJG	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/6/16 07:28	CJG	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:28	CJG	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/6/16 07:28	CJG	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:28	CJG	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:28	CJG	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:28	CJG	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/6/16 07:28	CJG	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:28	CJG	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/6/16 07:28	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:28	CJG	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:28	CJG	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:28	CJG	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/6/16 07:28	CJG	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/6/16 07:28	CJG	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:28	CJG	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:28	CJG	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:28	CJG	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099003** Date Collected: 12/1/2016 12:50 Matrix: Drinking Water

Sample ID: **DW-005I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:28	CJG	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:28	CJG	A
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:28	CJG	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:28	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:28	CJG	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:28	CJG	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:28	CJG	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:28	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:28	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:28	CJG	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:28	CJG	A
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:28	CJG	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/6/16 07:28	CJG	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:28	CJG	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/6/16 07:28	CJG	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:28	CJG	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:28	CJG	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/6/16 07:28	CJG	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:28	CJG	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/6/16 07:28	CJG	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:28	CJG	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/6/16 07:28	CJG	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:28	CJG	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:28	CJG	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:28	CJG	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:28	CJG	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/6/16 07:28	CJG	A
Methyl t-Butyl Ether	172		ug/L	25.0	4.5	EPA 524.2		12/7/16 03:06	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/6/16 07:28	CJG	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/6/16 07:28	CJG	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:28	CJG	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/6/16 07:28	CJG	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/6/16 07:28	CJG	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:28	CJG	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099003** Date Collected: 12/1/2016 12:50 Matrix: Drinking Water

Sample ID: **DW-005I** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2			12/6/16 07:28	CJG	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2			12/6/16 07:28	CJG	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:28	CJG	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:28	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2			12/6/16 07:28	CJG	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2			12/6/16 07:28	CJG	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2			12/6/16 07:28	CJG	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2			12/6/16 07:28	CJG	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2			12/6/16 07:28	CJG	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:28	CJG	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2			12/6/16 07:28	CJG	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2			12/6/16 07:28	CJG	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2			12/6/16 07:28	CJG	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2			12/6/16 07:28	CJG	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2			12/6/16 07:28	CJG	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2			12/6/16 07:28	CJG	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:28	CJG	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2			12/6/16 07:28	CJG	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2			12/6/16 07:28	CJG	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2			12/6/16 07:28	CJG	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2			12/6/16 07:28	CJG	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2			12/6/16 07:28	CJG	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	80.4		%	70 - 130	EPA 524.2			12/6/16 07:28	CJG	A
1,2-Dichlorobenzene-d4 (S)	78.3		%	70 - 130	EPA 524.2			12/7/16 03:06	CJG	B
4-Bromofluorobenzene (S)	85.7		%	70 - 130	EPA 524.2			12/6/16 07:28	CJG	A
4-Bromofluorobenzene (S)	85.3		%	70 - 130	EPA 524.2			12/7/16 03:06	CJG	B

WET CHEMISTRY

Chlorine, Total Residual	0.010J	J,1	mg/L	0.10	0.006	S4500ClG-00			12/4/16 20:52	MSA	E

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099004** Date Collected: 12/1/2016 13:00 Matrix: Drinking Water

Sample ID: **DW-005A** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	43.5		ug/L	5.0	2.2	EPA 524.2		12/6/16 07:52	CJG	A
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/6/16 07:52	CJG	A
tert-Amyl methyl ether	2.1		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
tert-Amyl Alcohol	43.1		ug/L	5.0	1.6	EPA 524.2		12/6/16 07:52	CJG	A
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2		12/6/16 07:52	CJG	A
Benzene	ND		ug/L	0.50	0.070	EPA 524.2		12/6/16 07:52	CJG	A
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:52	CJG	A
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:52	CJG	A
2-Butanone	5.7		ug/L	2.5	1.3	EPA 524.2		12/6/16 07:52	CJG	A
tert-Butyl Alcohol	624		ug/L	100	28.0	EPA 524.2		12/7/16 03:30	CJG	B
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:52	CJG	A
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:52	CJG	A
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:52	CJG	A
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:52	CJG	A
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2		12/6/16 07:52	CJG	A
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:52	CJG	A
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2		12/6/16 07:52	CJG	A
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:52	CJG	A
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:52	CJG	A
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2		12/6/16 07:52	CJG	A
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2		12/6/16 07:52	CJG	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:52	CJG	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2		12/6/16 07:52	CJG	A
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2		12/6/16 07:52	CJG	A
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:52	CJG	A
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099004** Date Collected: 12/1/2016 13:00 Matrix: Drinking Water

Sample ID: **DW-005A** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
1,2-Dichloroethane	3.5		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:52	CJG	A
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:52	CJG	A
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:52	CJG	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:52	CJG	A
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:52	CJG	A
Diisopropyl ether	1.6		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
1,4-Dioxane	ND		ug/L	4.0	4.0	EPA 524.2		12/6/16 07:52	CJG	A
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2		12/6/16 07:52	CJG	A
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:52	CJG	A
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2		12/6/16 07:52	CJG	A
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2		12/6/16 07:52	CJG	A
Hexane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2		12/6/16 07:52	CJG	A
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2		12/6/16 07:52	CJG	A
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2		12/6/16 07:52	CJG	A
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:52	CJG	A
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2		12/6/16 07:52	CJG	A
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:52	CJG	A
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2		12/6/16 07:52	CJG	A
Methyl t-Butyl Ether	136		ug/L	10.0	1.8	EPA 524.2		12/7/16 03:30	CJG	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2		12/6/16 07:52	CJG	A
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2		12/6/16 07:52	CJG	A
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2		12/6/16 07:52	CJG	A
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2		12/6/16 07:52	CJG	A
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A

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ANALYTICAL RESULTS

Workorder: 2193099 2016-CALVERT CITGO PROJECT/597

Lab ID: **2193099004** Date Collected: 12/1/2016 13:00 Matrix: Drinking Water

Sample ID: **DW-005A** Date Received: 12/2/2016 20:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2		12/6/16 07:52	CJG	A
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2		12/6/16 07:52	CJG	A
Styrene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2		12/6/16 07:52	CJG	A
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2		12/6/16 07:52	CJG	A
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2		12/6/16 07:52	CJG	A
Toluene	ND		ug/L	0.50	0.12	EPA 524.2		12/6/16 07:52	CJG	A
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2		12/6/16 07:52	CJG	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2		12/6/16 07:52	CJG	A
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2		12/6/16 07:52	CJG	A
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2		12/6/16 07:52	CJG	A
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2		12/6/16 07:52	CJG	A
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2		12/6/16 07:52	CJG	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2		12/6/16 07:52	CJG	A
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2		12/6/16 07:52	CJG	A
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2		12/6/16 07:52	CJG	A
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2		12/6/16 07:52	CJG	A
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2		12/6/16 07:52	CJG	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared* *By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	75.6		%	70 - 130		EPA 524.2		12/7/16 03:30	CJG	B
1,2-Dichlorobenzene-d4 (S)	80.1		%	70 - 130		EPA 524.2		12/6/16 07:52	CJG	A
4-Bromofluorobenzene (S)	88.5		%	70 - 130		EPA 524.2		12/7/16 03:30	CJG	B
4-Bromofluorobenzene (S)	87.7		%	70 - 130		EPA 524.2		12/6/16 07:52	CJG	A
WET CHEMISTRY										
Chlorine, Total Residual	ND	1	mg/L	0.10	0.006	S4500ClG-00		12/4/16 20:52	MSA	E

Ms. Susan J Scherer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2193099001	1	DW-005K	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193099002	1	DW-005J	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193099003	1	DW-005I	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
2193099004	1	DW-005A	S4500ClG-00	Chlorine, Total Residual
The chlorine analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				

OFF SITE

House # 2802

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Page 1 of 1
Courier:
Tracking #:

* 2 1 9 3 0 9 9 *

Co. Name: REPSG Inc.
Contact (Report to): James Manuel
Phone: 215-723-3220
Address: 6901 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to): Same
PO#: 13421

Project Name/#: Calvat /citgo 5977
ALS Quote #:

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

Email? [X] Y jmanuel@REPSG.com
Fax? [ ] Y No.:

***Container Type	VOA	Poly
***Container Size	40ml	500ml
***Preservative	HCl/Asc	VP

ANALYSES/METHOD REQUESTED

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 inc fuel oxygenates	Residual Chlorine
1 DW-005K	Post-Filtration	12-1-16	1230	G	DW	3	1
2 DW-005S	Mid-Carbon 2	12-1-16	1240	G	DW	3	1
3 DW-005I	Mid-Carbon 1	12-1-16	1250	G	DW	3	1
4 DW-005A	Pre-Filtration	12-1-16	1300	G	DW	3	1
5							
6							
7							
8							

Enter Number of Containers Per Analysis

12/3/16 0102

Performed by: SES
Cooler Temp:
Therm. ID: 318
No. of Coolers:
Notes:

Circle appropriate Y or N.

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

SAMPLED BY (Please Print): DANG PHUNG

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Natalie Hiller	12/2/16	1218	2	Chris Fadem	12/2/16	1210
3	Chris Fadem	12/2/16	1745	4	[signature]	12/2	1745
5	[signature]	12/2	2020	6	[signature]	12/2	2020
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 [ ]
State Samples Collected In? MD [X] NJ [ ] NY [ ] PA [ ] Other
Enter PWSID No.

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass; PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013