REPSG
React Environmental
Professional Services Group, Inc.

July 8, 2014

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

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

Dear Ms. DeBartolomeo,

Attached please find the drinking water results for the O'Brien and Ginski Residences, located at 2802 and 2794 Northeast Road in Northeast Maryland (as related to case NO.: 1992-2616-CE). These results are for the June 2014 drinking water events. The well completion reports for the March 2014 groundwater monitoring well install at the above two referenced properties are also included in this package.

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

Sincerely,

Suzanne Shourds
Project Manager
React Environmental Professional Services Group, Inc

enclosures

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

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

2794

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 #:

COC#

Co. Name: REPSG, INC.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave
Philadelphia, PA 19142

Bill to (if different than Report to): SAME

PO#: 9413

Project Name/#: Calcet 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/bmacphaile repsg.com

Fax? [ ] -Y No.

	***Container Type	***Container Size	*** Preservative	*G or C	**Matrix	VOC's by 524.2 Including Fuel Oxygenates									
	VOA	40ml	HCL + Ascorbic												

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 Including Fuel Oxygenates									
							Enter Number of Containers Per Analysis									
1	DW-004 K	Post Filtration	6/17/14	1100	G	DW	2									
2	DW-004 J	Mid Carbon 2	6/17/14	1105	G	DW	2									
3	DW-004 I	Mid Carbon 1	6/17/14	1110	G	DW	2									
4	DW-004 C	Pre-Filtration	6/17/14	1115	G	DW	2									
5																
6																
7																
8																

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

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

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

SAMPLED BY (Please Print): Cole Allen

Project Comments:

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

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

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

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

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

Other

⇨ Enter PWSID No.

DOD Criteria Required?

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

***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

Pre-Filtration

		Sample ID	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*	*DW-004C*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
1,1-Dichloroethane	5	ug/l	ND	ND	ND	ND	ND	0.17
1,2-Dichloroethane	5	ug/l	**12.4**	**11.4**	**13.7**	**11.9**	**11.7**	**11**
2-Nitropropane	**	ug/l	ND	ND	ND	ND	1.3	ND
Acetone	**	ug/l	ND	20.5	ND	ND	ND	43.8
Carbon disulfide	**	ug/l	ND	ND	ND	ND	0.22	ND
Cymene	**	ug/l	ND	ND	ND	ND	0.11	ND
Diethyl ether	**	ug/l	ND	ND	0.23	0.34	0.22	ND
Isopropyl benzene	**	ug/l	ND	0.16	ND	ND	0.15	ND
Isopropyl ether	**	ug/l	5.7	6.8	ND	ND	ND	ND
Methyl chloride	**	ug/l	ND	ND	ND	ND	ND	0.5
Methyl ethyl ketone	**	ug/l	ND	12.1	ND	10	6.6	ND
Methyl tert-butyl ether	20	ug/l	**529**	**577**	**533**	**417**	**469**	**432**
Tert-Amyl alcohol	**	ug/l	ND	ND	266	181	ND	ND
Tert-Amyl Methyl Ether	**	ug/l	3.7	ND	ND	3.2	3.5	ND
tert-Butylalcohol	**	ug/l	4240	6420	5850	3160	3960	5560
Tetrahydrofuran	**	ug/l	ND	ND	ND	ND	0.94	ND

Mid-Carbon 1

		Sample ID	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*	*DW-004I*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	8	19.1	4.4	7.7	20.4	39.7
Methyl ethyl ketone	**	ug/l	17.7	10.5	ND	12.2	4.8	ND
Methyl tert-butyl ether	20	ug/l	ND	0.58	ND	0.29	3	16.8
Tert-Amyl alcohol	**	ug/l	ND	ND	ND	ND	35.3	ND
Tert-Amyl Methyl Ether	**	ug/l	ND	ND	ND	10.3	ND	ND
tert-Butylalcohol	**	ug/l	2560	5420	6100	3330	4980	4250
Tetrahydrofuran	**	ug/l	ND	13.8	5.7	14.3	5.2	6.9

Mid-Carbon 2

		Sample ID	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*	*DW-004J*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	3.3	25.3	4.4	9.5	7.9	15.2
Methyl ethyl ketone	**	ug/l	12.2	13.3	7.6	13.1	5	ND
Methyl tert-butyl ether	20	ug/l	ND	0.12	ND	ND	ND	ND
tert-Butylalcohol	**	ug/l	2860	5700	5980	4250	5150	5950
Tetrahydrofuran	**	ug/l	ND	3.9	4.9	9.7	5.5	12.8

Post-Carbon

		Sample ID	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*	*DW-004K*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	7.5	23	4.3	6.1	13.4	58.1
Methyl ethyl ketone	**	ug/l	8.7	14.8	ND	9.8	5.5	ND
Methyl tert-butyl ether	20	ug/l	ND	ND	ND	0.53	0.37	0.6
tert-Butylalcohol	**	ug/l	2840	5150	5800	3390	5430	5490
Tetrahydrofuran	**	ug/l	ND	4.8	ND	2.3	4.2	7.5

REPSG
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Professional Services Group, Inc.

Analytical Chemistry Report

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

Matrix: Water

Sample Date: 06/17/2014

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U

** No Applicable Regulatory Standard

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

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

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Semi-Volatile Organic Compounds (SVOCs)						
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	0.17J	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	**11**	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	43.8	39.7	15.2	58.1
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		0.5	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<1.3U	<1.3U
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**432**	16.8	<0.09U	0.6
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		5560	4250	5950	5490
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	6.9	12.8	7.5

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-004C	DW-004I	DW-004J	DW-004K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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

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

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June 26, 2014

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

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2013164**
Purchase Order:	**9413**	Workorder ID:	**2013-CALVERT CITGO PROJECT/597**

Dear Ms. Kellogg:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, June 18, 2014.

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

If you have any questions regarding this certificate of analysis, please contact 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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

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

CC: Mr. James Manuel

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2013164001	DW-004K	Water	6/17/2014 11:00	6/18/2014 21:50	Collected by Client
2013164002	DW-004J	Water	6/17/2014 11:05	6/18/2014 21:50	Collected by Client
2013164003	DW-004I	Water	6/17/2014 11:10	6/18/2014 21:50	Collected by Client
2013164004	DW-004C	Water	6/17/2014 11:15	6/18/2014 21:50	Collected by Client

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”.

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

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PROJECT SUMMARY

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Sample Comments

Lab ID: 2013164003 **Sample ID:** DW-004I **Sample Type:** SAMPLE

The method 524.2 internal standard was recovered outside of the control limits. The sample was re-analyzed with similar results.

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164001** Date Collected: 6/17/2014 11:00 Matrix: Water
Sample ID: **DW-004K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	58.1		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
tert-Butyl Alcohol	5490		ug/L	500	140	EPA 524.2	6/24/14	TMP	6/24/14 06:22	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164001** Date Collected: 6/17/2014 11:00 Matrix: Water

Sample ID: **DW-004K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Methyl t-Butyl Ether	0.60		ug/L	0.50	0.090	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164001** Date Collected: 6/17/2014 11:00 Matrix: Water
Sample ID: **DW-004K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Tetrahydrofuran	7.5		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	83.3		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B
1,2-Dichlorobenzene-d4 (S)	80		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 06:22	TMP	A
4-Bromofluorobenzene (S)	76.5		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 06:22	TMP	A
4-Bromofluorobenzene (S)	79.5		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 21:16	TMP	B

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164002** Date Collected: 6/17/2014 11:05 Matrix: Water
Sample ID: **DW-004J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	15.2		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
tert-Butyl Alcohol	5950		ug/L	500	140	EPA 524.2	6/24/14	TMP	6/24/14 06:48	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164002** Date Collected: 6/17/2014 11:05 Matrix: Water
Sample ID: **DW-004J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164002** Date Collected: 6/17/2014 11:05 Matrix: Water
Sample ID: **DW-004J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Tetrahydrofuran	12.8		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	84.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
1,2-Dichlorobenzene-d4 (S)	76.8		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 06:48	TMP	A
4-Bromofluorobenzene (S)	88.9		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 21:42	TMP	B
4-Bromofluorobenzene (S)	70.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 06:48	TMP	A

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164003** Date Collected: 6/17/2014 11:10 Matrix: Water
Sample ID: **DW-004I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	39.7		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
tert-Butyl Alcohol	4250		ug/L	500	140	EPA 524.2	6/25/14	TMP	6/25/14 17:42	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164003** Date Collected: 6/17/2014 11:10 Matrix: Water
Sample ID: **DW-004I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Methyl t-Butyl Ether	16.8		ug/L	0.50	0.090	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164003** Date Collected: 6/17/2014 11:10 Matrix: Water
Sample ID: **DW-004I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Tetrahydrofuran	6.9		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	70.8		%	70 - 130	EPA 524.2	6/25/14	TMP	6/25/14 17:42	TMP	A
1,2-Dichlorobenzene-d4 (S)	86.1		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B
4-Bromofluorobenzene (S)	75.1		%	70 - 130	EPA 524.2	6/25/14	TMP	6/25/14 17:42	TMP	A
4-Bromofluorobenzene (S)	79.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 22:08	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164004** Date Collected: 6/17/2014 11:15 Matrix: Water
Sample ID: **DW-004C** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	43.8		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
tert-Butyl Alcohol	5560		ug/L	250	70.0	EPA 524.2	6/24/14	TMP	6/24/14 05:52	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Chloromethane	0.50		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164004** Date Collected: 6/17/2014 11:15 Matrix: Water
Sample ID: **DW-004C** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1-Dichloroethane	0.17J	J	ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2-Dichloroethane	11.0		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Methyl t-Butyl Ether	432		ug/L	25.0	4.5	EPA 524.2	6/24/14	TMP	6/24/14 05:52	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013164 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013164004** Date Collected: 6/17/2014 11:15 Matrix: Water
Sample ID: **DW-004C** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	82.3		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 05:52	TMP	A
1,2-Dichlorobenzene-d4 (S)	85.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B
4-Bromofluorobenzene (S)	78.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 05:52	TMP	A
4-Bromofluorobenzene (S)	81.8		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 20:50	TMP	B

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

2794

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 #:

2013164

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#: 9413

Project Name/#: Calcoet 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/bmacphaile 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	VOC's by 524.2 Including Fuel Oxygenates									
	***Container Type						VOA									
	***Container Size						40ml									
	*** Preservative						HCL+ AS									
1	DW-004 K	Post Filtration	6/17/14	1100	G	DW	2									
2	DW-004 J	Mid Carbon 2	6/17/14	1105	G	DW	2									
3	DW-004 I	Mid Carbon 1	6/17/14	1110	G	DW	2									
4	DW-004 C	Pre-Filtration	6/17/14	1115	G	DW	2									
5																
6																
7																
8																

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

6/19/14

Receipt Info (completed by Sample Receiving)

Performed by: Date/Time

Cooler Temp: 1

Therm. ID: 291

No. of Coolers:

Notes:

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

SAMPLED BY (Please Print): Cole Allen

Project Comments: SLB 6/20 435

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	6-18-14	10:10	2 Ron Hopper	6-18	1010
3 Ron Hopper [signature]	6-18		4 [signature]	6/18	2000
5 [signature]	6/18	2150	6 [signature]	6/18	2150
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

ALS FIELD SERVICES: [X] 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

2502

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 #:

COC#

Co. Name: REPSG Inc.

Contact (Report to): James Manuel

Phone: 215-729-3220

Address: 6901 Kingsessing Ave. Philadelphia, PA 19142

Bill to (if different than Report to): SAME

PO#: 9413

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/bracphail@repsg.com

Fax? [ ] -Y No.

							***Container Type	VOA															
							***Container Size	40ml															
							*** Preservative	HCL+ Asc															
							ANALYSES/METHOD REQUESTED																
								VOC's by 5270.2 Including Fuel Oxygenates															
Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis																	
1 DW-005K	Post Filtration	6/17/14	1015	G	DW	2																	
2 DW-005J	Mid-Carbon 2	6/17/14	1020	G	DW	2																	
3 DW-005I	Mid-Carbon 1	6/17/14	1025	G	DW	2																	
4 DW-005A	Pre-Filtration	6/17/14	1030	G	DW	2																	
5																							
6																							
7																							
8																							

Receipt Information (completed by Sample Receiving)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

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

Circle appropriate Y or N.	Custody seals Present?	(If present) Seals intact?	Received on ice?	COC/Labels complete/accurate?
	N	N	N	N
	Y	Y	Y	Y

Container in good condition?

SAMPLED BY (Please Print): Cole Allen

Project Comments:

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

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

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

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

Other

⇨Enter PWSID No

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

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

Pre-Filtration

		Sample ID	*DW-005A*	*DW-005A*	*DW-005A*	*DW-005A*	*DW-005A*	*DW-005A*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
1,1-Dichloroethane	**	ug/l	ND	0.29J	ND	ND	0.23	ND
1,2-Dichloroethane	5	ug/l	1.9	2.5	2.7	3.7	3.8	3.9
Acetone	**	ug/l	ND	18.3	ND	ND	14.2	30.6
Benzene	5	ug/l	ND	ND	ND	0.24	0.098	ND
Diethyl ether	**	ug/l	ND	0.48	0.53	0.45	0.61	ND
Isopropyl Ether	**	ug/l	1.2	2.3	2.5	2.7	ND	2.6
Methyl ethyl ketone	**	ug/l	4.9	8.6	7.1	11.3	5.4	ND
Methyl tert-butyl ether	20	ug/l	**185**	**249**	**45.2**	**317**	**294**	**294**
p-Dichlorobenzene	75	ug/l	ND	0.14	ND	ND	0.13	ND
Tert-Amyl alcohol	**	ug/l	ND	ND	66.5	83.6	71.4	ND
Tert-Amyl Methyl Ether	**	ug/l	2.2	ND	ND	3.8	3.7	ND
tert-Butylalcohol	**	ug/l	276	534	808	762	948	958

Mid-Carbon 1

		Sample ID	*DW-005I*	*DW-005I*	*DW-005I*	*DW-005I*	*DW-005I*	*DW-005I*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	9.5	11.8	ND	ND	9.4	12.3
Methyl ethyl ketone	**	ug/l	7.2	8.7	ND	8.2	5.5	ND
Methyl tert-butyl ether	20	ug/l	1.8	9.9	**260**	**65.3**	**95.3**	**136**
Tert-Amyl alcohol	**	ug/l	ND	ND	ND	34.7	49.1	ND
tert-Butylalcohol	**	ug/l	590	882	642	456	910	1390
Tetrahydrofuran	**	ug/l	ND	12.6	1.8	7.2	5.4	4.9

Mid-Carbon 2

		Sample ID	*DW-005J*	*DW-005J*	*DW-005J*	*DW-005J*	*DW-005J*	*DW-005J*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	7.3	13.9	2.5	4	12.3	41.3
Methyl ethyl ketone	**	ug/l	ND	12.1	6.5	10	9.1	0.35
tert-Butylalcohol	**	ug/l	1180	1020	661	420	927	720
Tetrahydrofuran	**	ug/l	ND	9.2	13.4	13.6	13.4	16.7

Post-Carbon

		Sample ID	*DW-005K*	*DW-005K*	*DW-005K*	*DW-005K*	*DW-005K*	*DW-005K*
		Sample date	1/13/2014	2/10/2014	3/31/2014	4/23/2014	5/20/2014	6/17/2014
Compound	**EPA Std.**	**Unit**						
Acetone	**	ug/l	5.2	10.1	ND	6.1	7	28.1
Carbon disulfide	**	ug/l	ND	0.27	ND	ND	ND	ND
Methyl ethyl ketone	**	ug/l	ND	7.3	5	9.6	5.8	ND
Methyl tert-butyl ether	20	ug/l	ND	ND	0.46	ND	ND	ND
tert-Butylalcohol	**	ug/l	838	1390	815	548	586	1060
Tetrahydrofuran	**	ug/l	ND	ND	ND	ND	2.2	ND

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report

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

Matrix: Water

Sample Date: 06/17/2014

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Not Otherwise Specified							
1,1,-dichloropropanone	ug/l	**		<2.2U	<2.2U	<2.2U	<2.2U
2-Nitropropane	ug/l	**		<0.8U	<0.8U	<0.8U	<0.8U
Acrylonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Allyl chloride	ug/l	**		<0.17U	<0.17U	<0.17U	<0.17U
Chloroacetonitrile	ug/l	**		<0.88U	<0.88U	<0.88U	<0.88U
Chlorobutane, 1-	ug/l	**		<0.28U	<0.28U	<0.28U	<0.28U
DBCP	ug/l	0.2		<0.23U#	<0.23U#	<0.23U#	<0.23U#
Dichlorofluoromethane	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl cyanide	ug/l	**		<0.7U	<0.7U	<0.7U	<0.7U
Ethyl methacrylate	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
Isopropanol	ug/l	**		<3.9U	<3.9U	<3.9U	<3.9U
Methacrylonitrile	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Methyl acrylate	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Methyl iodide	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Methyl methacrylate	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
n-Hexane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Pentachloroethane	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Tert-Amyl Methyl Ether	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
trans-1,4-Dichloro-2-butene	ug/l	**		<0.27U	<0.27U	<0.27U	<0.27U
Vinyl Acetate	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U

** No Applicable Regulatory Standard

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

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

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Semi-Volatile Organic Compounds (SVOCs)						
Hexachloroethane	ug/l	**	<0.32U	<0.32U	<0.32U	<0.32U
Nitrobenzene	ug/l	**	<1.8U	<1.8U	<1.8U	<1.8U
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	ug/l	**	<0.22U	<0.22U	<0.22U	<0.22U
1,1,1-trichloroethane	ug/l	200	<0.15U	<0.15U	<0.15U	<0.15U
1,1,2,2-Tetrachloroethane	ug/l	**	<0.13U	<0.13U	<0.13U	<0.13U
1,1,2-Trichloroethane	ug/l	5	<0.2U	<0.2U	<0.2U	<0.2U
1,1-Dichloroethane	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U
1,1-Dichloroethylene	ug/l	7	<0.22U	<0.22U	<0.22U	<0.22U
1,1-Dichloropropene	ug/l	**	<0.24U	<0.24U	<0.24U	<0.24U
1,2,3-Trichlorobenzene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,2,3-Trichloropropane	ug/l	**	<0.28U	<0.28U	<0.28U	<0.28U
1,2-Dibromoethane	ug/l	**	<0.15U	<0.15U	<0.15U	<0.15U
1,2-Dichloroethane	ug/l	5	3.9	<0.15U	<0.15U	<0.15U
1,2-Dichloropropane	ug/l	**	<0.19U	<0.19U	<0.19U	<0.19U
1,3-Dichloropropane	ug/l	**	<0.14U	<0.14U	<0.14U	<0.14U
1,3-Dichloropropene	ug/l	**	<0.23U	<0.23U	<0.23U	<0.23U
1,4-Dioxane	ug/l	**	<1.5U	<1.5U	<1.5U	<1.5U
2-Hexanone	ug/l	**	<0.82U	<0.82U	<0.82U	<0.82U
Acetone	ug/l	**	30.6	12.3	41.3	28.1
Benzene	ug/l	5	<0.07U	<0.07U	<0.07U	<0.07U
Benzene, 1,2,4-trimethyl	ug/l	**	<0.11U	<0.11U	<0.11U	<0.11U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Benzene, 1,3,5-trimethyl-	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Bromobenzene	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Bromodichloromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Bromoform	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
Carbon disulfide	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Carbon tetrachloride	ug/l	5		<0.2U	<0.2U	<0.2U	<0.2U
Chlorobenzene	ug/l	100		<0.14U	<0.14U	<0.14U	<0.14U
Chlorobromomethane	ug/l	**		<0.2U	<0.2U	<0.2U	<0.2U
Chloroethane	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Chloroform	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,2-Dichloroethylene	ug/l	70		<0.19U	<0.19U	<0.19U	<0.19U
cis-1,3-Dichloropropene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
Cymene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Dibromochloromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Dichlorodifluoromethane	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Diethyl ether	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U
Ethyl tert-butyl ether	ug/l	**		<0.19U	<0.19U	<0.19U	<0.19U
Ethylbenzene	ug/l	700		<0.18U	<0.18U	<0.18U	<0.18U
Isopropyl benzene	ug/l	**		<0.14U	<0.14U	<0.14U	<0.14U
Isopropyl Ether	ug/l	**		2.6	<0.21U	<0.21U	<0.21U
m/p-xylene	ug/l	**		<0.21U	<0.21U	<0.21U	<0.21U

** No Applicable Regulatory Standard

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

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

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Professional Services Group, Inc.

Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Methyl bromide	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
Methyl chloride	ug/l	**		<0.22U	<0.22U	<0.22U	<0.22U
Methyl ethyl ketone	ug/l	**		<1.3U	<1.3U	<1.3U	<1.3U
Methyl isobutylketone (MIBK)	ug/l	**		<0.56U	<0.56U	<0.56U	<0.56U
Methyl tert-butyl ether	ug/l	20		**294**	**136**	0.35J	<0.09U
Methylene bromide	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Methylene chloride	ug/l	5		<0.32U	<0.32U	<0.32U	<0.32U
n-Butylbenzene	ug/l	**		<0.13U	<0.13U	<0.13U	<0.13U
n-Propylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
o-Chlorotoluene	ug/l	**		<0.23U	<0.23U	<0.23U	<0.23U
o-Xylene	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
p-Chlorotoluene	ug/l	**		<0.16U	<0.16U	<0.16U	<0.16U
sec-Butylbenzene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
sec-Dichloropropane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Styrene	ug/l	100		<0.11U	<0.11U	<0.11U	<0.11U
Tert-Amyl alcohol	ug/l	**		<1.6U	<1.6U	<1.6U	<1.6U
Tert-Amyl Ethyl Ether	ug/l	**		<0.12U	<0.12U	<0.12U	<0.12U
tert-Butylalcohol	ug/l	**		958	1390	720	1060
tert-Butylbenzene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
Tetrachloroethylene	ug/l	5		<0.17U	<0.17U	<0.17U	<0.17U
Tetrahydrofuran	ug/l	**		<0.81U	4.9	16.7	<0.81U

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Analytical Chemistry Report **Matrix: Water**

Calvert Citgo 2815 Northeast Rd North East, Maryland **Project No.: 005977** **Sample Date: 06/17/2014**

Regulatory Standard*:

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

Constituent	**Unit**	***Standard**	**Location:**	DW-005A	DW-005I	DW-005J	DW-005K
			Date:	06/17/2014	06/17/2014	06/17/2014	06/17/2014
			Depth (ft):	0	0	0	0
Toluene	ug/l	1000		<0.12U	<0.12U	<0.12U	<0.12U
trans-1,2-Di-chloroethylene	ug/l	100		<0.19U	<0.19U	<0.19U	<0.19U
trans-1,3-Dichloropropene	ug/l	**		<0.1U	<0.1U	<0.1U	<0.1U
Trichloroethylene	ug/l	5		<0.21U	<0.21U	<0.21U	<0.21U
Trichlorofluoromethane	ug/l	**		<0.18U	<0.18U	<0.18U	<0.18U
Vinyl chloride	ug/l	2		<0.23U	<0.23U	<0.23U	<0.23U
Xylene (total)	ug/l	10000		<0.27U	<0.27U	<0.27U	<0.27U
Volatile/Semi-Volatile Organic Compounds (V/SVOCs)							
1,2,4-Trichlorobenzene	ug/l	70		<0.14U	<0.14U	<0.14U	<0.14U
Hexachlorobutadiene	ug/l	**		<0.24U	<0.24U	<0.24U	<0.24U
m-Dichlorobenzene	ug/l	**		<0.11U	<0.11U	<0.11U	<0.11U
Naphthalene	ug/l	**		<0.15U	<0.15U	<0.15U	<0.15U
o-Dichlorobenzene	ug/l	600		<0.13U	<0.13U	<0.13U	<0.13U
p-Dichlorobenzene	ug/l	75		<0.11U	<0.11U	<0.11U	<0.11U

** No Applicable Regulatory Standard

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

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

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 421 , WV 343

June 25, 2014

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

Certificate of Analysis

Project Name:	**2013-CALVERT CITGO**	Workorder:	**2013165**
Purchase Order:	**9413**	Workorder ID:	**2013-CALVERT CITGO PROJECT/597**

Dear Ms. Kellogg:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, June 18, 2014.

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

If you have any questions regarding this certificate of analysis, please contact 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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

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

CC: Mr. James Manuel

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 421 , WV 343

SAMPLE SUMMARY

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2013165001	DW-005K	Water	6/17/2014 10:15	6/18/2014 21:50	Collected by Client
2013165002	DW-005J	Water	6/17/2014 10:20	6/18/2014 21:50	Collected by Client
2013165003	DW-005I	Water	6/17/2014 10:25	6/18/2014 21:50	Collected by Client
2013165004	DW-005A	Water	6/17/2014 10:30	6/18/2014 21:50	Collected by Client

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”.

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

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165001** Date Collected: 6/17/2014 10:15 Matrix: Water
Sample ID: **DW-005K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	28.1		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
tert-Butyl Alcohol	1060		ug/L	100	28.0	EPA 524.2	6/24/14	TMP	6/24/14 04:09	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165001** Date Collected: 6/17/2014 10:15 Matrix: Water
Sample ID: **DW-005K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Methyl t-Butyl Ether	ND		ug/L	0.50	0.090	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165001** Date Collected: 6/17/2014 10:15 Matrix: Water
Sample ID: **DW-005K** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	79.4		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 04:09	TMP	A
1,2-Dichlorobenzene-d4 (S)	75.3		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
4-Bromofluorobenzene (S)	72.4		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:59	TMP	B
4-Bromofluorobenzene (S)	81.8		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 04:09	TMP	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 421 , WV 343

ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165002** Date Collected: 6/17/2014 10:20 Matrix: Water
Sample ID: **DW-005J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	41.3		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
tert-Butyl Alcohol	720		ug/L	100	28.0	EPA 524.2	6/24/14	TMP	6/24/14 04:35	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165002** Date Collected: 6/17/2014 10:20 Matrix: Water
Sample ID: **DW-005J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Methyl t-Butyl Ether	0.35J	J	ug/L	0.50	0.090	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165002** Date Collected: 6/17/2014 10:20 Matrix: Water
Sample ID: **DW-005J** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Tetrahydrofuran	16.7		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	84.8		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B
1,2-Dichlorobenzene-d4 (S)	77.4		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 04:35	TMP	A
4-Bromofluorobenzene (S)	74.2		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 04:35	TMP	A
4-Bromofluorobenzene (S)	80.4		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:33	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165003** Date Collected: 6/17/2014 10:25 Matrix: Water
Sample ID: **DW-005I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	12.3		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
tert-Butyl Alcohol	1390		ug/L	250	70.0	EPA 524.2	6/24/14	TMP	6/24/14 05:01	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165003** Date Collected: 6/17/2014 10:25 Matrix: Water
Sample ID: **DW-005I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2-Dichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Diisopropyl ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Methyl t-Butyl Ether	136		ug/L	25.0	4.5	EPA 524.2	6/24/14	TMP	6/24/14 05:01	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165003** Date Collected: 6/17/2014 10:25 Matrix: Water
Sample ID: **DW-005I** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Tetrahydrofuran	4.9		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)					EPA 524.2	6/24/14	TMP	6/24/14 05:01	TMP	A
1,2-Dichlorobenzene-d4 (S)	78		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
4-Bromofluorobenzene (S)	75.6		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 19:08	TMP	B
4-Bromofluorobenzene (S)					EPA 524.2	6/24/14	TMP	6/24/14 05:01	TMP	A

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165004** Date Collected: 6/17/2014 10:30 Matrix: Water
Sample ID: **DW-005A** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS											
Acetone	30.6		ug/L	5.0	2.2	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Acrylonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
tert-Amyl methyl ether	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
tert-Amyl Alcohol	ND		ug/L	5.0	1.6	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
tert-Amyl Ethylether	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Benzene	ND		ug/L	0.50	0.070	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Bromobenzene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Bromochloromethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Bromodichloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Bromoform	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Bromomethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
2-Butanone	ND		ug/L	2.5	1.3	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
tert-Butyl Alcohol	958		ug/L	100	28.0	EPA 524.2	6/24/14	TMP	6/24/14 05:26	TMP	A
n-Butylbenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
tert-Butylbenzene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
sec-Butylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Carbon Disulfide	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Carbon Tetrachloride	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chloroacetonitrile	ND		ug/L	2.5	0.88	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1-Chlorobutane	ND		ug/L	1.0	0.28	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chlorodibromomethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chloroethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chloroform	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Chloromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
3-Chloro-1-propene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
o-Chlorotoluene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
p-Chlorotoluene	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dibromoethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Dibromomethane	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	0.27	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1-Dichloro-2-Propanone	ND		ug/L	12.5	2.2	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dichlorobenzene	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,3-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,4-Dichlorobenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B

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ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165004** Date Collected: 6/17/2014 10:30 Matrix: Water
Sample ID: **DW-005A** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	*Cntr*
Dichlorodifluoromethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1-Dichloroethane	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dichloroethane	3.9		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1-Dichloroethene	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Dichlorofluoromethane	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,3-Dichloropropane	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
2,2-Dichloropropane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dichloropropane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1-Dichloropropene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,3-Dichloropropene, Total	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Diisopropyl ether	2.6		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,4-Dioxane	ND		ug/L	4.0	1.5	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Ethyl Ether	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Ethyl Methacrylate	ND		ug/L	0.50	0.16	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Ethyl tert-butyl ether	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Ethylbenzene	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Hexachlorobutadiene	ND		ug/L	0.50	0.24	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Hexachloroethane	ND		ug/L	1.0	0.32	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Hexane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
2-Hexanone	ND		ug/L	2.5	0.82	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Iodomethane	ND		ug/L	0.50	0.19	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Isopropyl Alcohol	ND		ug/L	25.0	3.9	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Isopropylbenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
p-Isopropyltoluene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Methacrylonitrile	ND		ug/L	1.0	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Methyl methacrylate	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Methyl acrylate	ND		ug/L	1.0	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Methyl t-Butyl Ether	294		ug/L	10.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 05:26	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	0.56	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Methylene Chloride	ND		ug/L	0.50	0.32	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Naphthalene	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Nitrobenzene	ND		ug/L	5.0	1.8	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
2-Nitropropane	ND		ug/L	2.5	0.80	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Pentachloroethane	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B

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 421 , WV 343

ANALYTICAL RESULTS

Workorder: 2013165 2013-CALVERT CITGO PROJECT/597

Lab ID: **2013165004** Date Collected: 6/17/2014 10:30 Matrix: Water
Sample ID: **DW-005A** Date Received: 6/18/2014 21:50

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Propionitrile	ND		ug/L	2.5	0.70	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
n-Propylbenzene	ND		ug/L	0.50	0.10	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Styrene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.13	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Tetrachloroethene	ND		ug/L	0.50	0.17	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Tetrahydrofuran	ND		ug/L	2.5	0.81	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Toluene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Total Xylenes	ND		ug/L	0.50	0.27	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.14	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1,1-Trichloroethane	ND		ug/L	0.50	0.15	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,1,2-Trichloroethane	ND		ug/L	0.50	0.20	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Trichloroethene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Trichlorofluoromethane	ND		ug/L	0.50	0.18	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2,3-Trichloropropane	ND		ug/L	0.50	0.28	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.11	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Vinyl Acetate	ND		ug/L	0.50	0.22	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
Vinyl Chloride	ND		ug/L	0.50	0.23	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
o-Xylene	ND		ug/L	0.50	0.12	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
mp-Xylene	ND		ug/L	0.50	0.21	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	71.6		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B
1,2-Dichlorobenzene-d4 (S)	80.4		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 05:26	TMP	A
4-Bromofluorobenzene (S)	90.7		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 05:26	TMP	A
4-Bromofluorobenzene (S)	71.8		%	70 - 130	EPA 524.2	6/24/14	TMP	6/24/14 20:25	TMP	B

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

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 #:

2013165

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#: 9413

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/bracphail@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	VOC's by 527.2 Including Fuel Oxygenates															
							***Container Type	VOA														
							***Container Size	40ml														
							*** Preservative	HCL+ ASC														
							ANALYSES/METHOD REQUESTED															
							Enter Number of Containers Per Analysis															
1	DW-005K	Post Filtration	6/17/14	1015	G	DW	2															
2	DW-005J	Mid-Carbon 2	6/17/14	1020	G	DW	2															
3	DW-005I	Mid-Carbon 1	6/17/14	1025	G	DW	2															
4	DW-005A	Pre-Filtration	6/17/14	1030	G	DW	2															
5																						
6																						
7																						
8																						

Performed by: Ryan

Cooler Temp: 1

Therm. ID: 291

No. of Coolers:

Notes:

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

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

SAMPLED BY (Please Print): Cole Allen

Project Comments:

6/19/14 SLB 6/20

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		6-18-14	10:10	2	Ryan Hongey	6-18	1012
3	Ryan Hongey	6-18		4		6/18	2000
5		6/18	2150	6		6/18	2150
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 [ ] Other

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

DOD Criteria Required?

ALS FIELD SERVICES: [X] 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

pd. # 30.00 # 229297 DLL

EMERGENCY/TEMP NO. IF ANY

B 1 05223 — SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

STATE PERMIT NUMBER CE – 14 – 0016

fill in this form completely

Date Received (APA) 2/14/14

OWNER INFORMATION

Eitel Pragosch

Last Name — Owner — First Name

0815 Northeast Road

Street or RFD

Northeast MD 21901

Town — State — Zip

DRILLER INFORMATION

Howard Hammel MD 138

Driller's Name — License No.

Environprobe Service Inc

Firm Name

708 N. Lonsdale Road, Maxatoney MD 20857

Address

Signature — Date 2/12/14

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, DEWATERING
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [O] OPEN LOOP GEOTHERMAL
- [C] CLOSED LOOP GEOTHERMAL

APPROXIMATE DEPTH OF WELL 35 FEET

APPROXIMATE DIAMETER OF WELL 2 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER G

PERMIT No. CE – 14 – 0016

B 3 LOCATION OF WELL

Cecil

COUNTY

MS #3547 H1510

SUBDIVISION

SECTION — LOT 1

Calvert

NEAREST TOWN

B 4

SOURCES OF DRILLING WATER

1.
2.
3.

0802 Northeast Road

STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N, W 32 E, WEST, S SOUTH

DISTANCE FROM ROAD 30 ENTER FT OR MI

TAX MAP: 4 BLK: 12 PARCEL 23

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

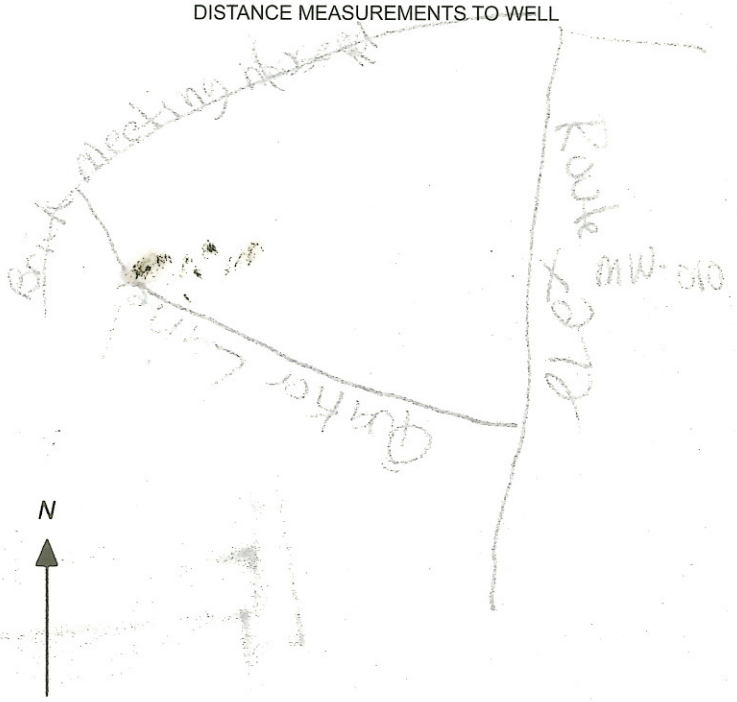
Cecil — COUNTY NAME

07 — COUNTY NO.

STATE SIGNATURE — INSERT S

DATE ISSUED 2/19/14 — CO SIGNATURE — EXP. DATE 2/18/15

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

MDE/WMA/PER.071

④ DRILLER

C 1 20333

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1510

ST/CO USE ONLY
DATE Received MM DD YY 13

DATE WELL COMPLETED MM DD YY 03 10 14 (15–20)

Depth of Well 22 50' 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 14 - 0016 (28–37)

OWNER PATEL PRAGNESH (last name, first name)

WELL SITE ADDRESS 2802 NORTHEAST RD. TOWN NORTH EAST

SUBDIVISION MS#3547 SECTION LOT 1

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0'	6"	
TAN/ORANGE BRN CLAYEY SILT	6"	8'	
TAN/GREY MOTTLED SILT, WITH FE-SAND TR. CLAY	8'	23'	
GREY/BRN, SILT, TR. FE-SAND	23'	30'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M D 38

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (to nearest foot)

from 0' (48 TOP 52) ft. to 17' (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2" (63 64)	20' (66–70)

OTHER CASING (if used) — EACH CASING

	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 — DEPTH (nearest ft.) — EACH SCREEN

1	PL (8 9)	20' (11–15)	30' (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 .01 2 3

DIAMETER OF SCREEN 2" (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 27' to 30' (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) 2 (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 14' (17–20) ft.

WHEN PUMPING (22–25) ft.

TYPE OF PUMP USED (for test)

A air, P piston, T turbine, C centrifugal, R rotary, O other (describe below), J jet, S submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above, – below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _

LONGITUDE 7 _ . _ _ _ _ _ _

(DEFAULT COORD. WGS 84)

NOTES:

MDE/WMA/PER.071

DRILLER

C 1 20333

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

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WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

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COUNTY NUMBER H1510

ST/CO USE ONLY
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GREY/BRN, SILT. TR. F-SAND	23'	30'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

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DRILLERS LIC. NO.: M [illegible] D 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: __ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

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from 0' ft. (48 TOP 52) to 17' ft. (54 BOTTOM 58)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2" (63 64)	20' (66–70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1 2)

DEPTH (nearest ft.)

EACH SCREEN			
1	PL (8 9)	20' (11–15)	30' (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 .01 2 ___ 3 ___

DIAMETER OF SCREEN 2" (56 60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 77' to 30' (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING — (E.R.O.S.) (72) LOG INDICATOR — W Q (74 75 76) OTHER DATA

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) 2 (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 14' ft. (17–20)

WHEN PUMPING ___ ft. (22–25)

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)
[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)
[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above (49) / [–] below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _
LONGITUDE 7 _ . _ _ _ _ _ _
(DEFAULT COORD. WGS 84)
NOTES:

MDE/WMA/PER.071

OWNER

EMERGENCY/TEMP NO. IF ANY

B 1 05224 — SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

STATE PERMIT NUMBER: CE – 14 – 0017

fill in this form completely

Date Received (APA): 2/14/14

OWNER INFORMATION

Last Name: Owner — First Name: Prospect

Street or RFD: 2815 Northeast Road

Town: Northeast — State: MD — Zip: 21901

DRILLER INFORMATION

Driller's Name: Henry Navarro — License No.: M D 138

Firm Name: Prospect Well Drilling

Address: 18 Lincoln Road Hartsville, MD 21

Signature: [signature] — Date: 2/12/14

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- 22 [I] INDUSTRIAL, COMMERCIAL, DEWATERING
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [O] OPEN LOOP GEOTHERMAL
- [C] CLOSED LOOP GEOTHERMAL

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 2 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

30 AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

37 CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER

PERMIT No. CE – 14 – 0017

B 3 LOCATION OF WELL

COUNTY: Cecil — H1510

SUBDIVISION: MS #3547

SECTION: — LOT: 1

NEAREST TOWN: Oldtown

B 4

SOURCES OF DRILLING WATER

1.

2.

3.

STREET ADDRESS: 2808 Northeast Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N / W 32 E / WEST / S / EAST / SOUTH

DISTANCE FROM ROAD: 20 FT

TAX MAP: 11 BLK: 12 PARCEL 263

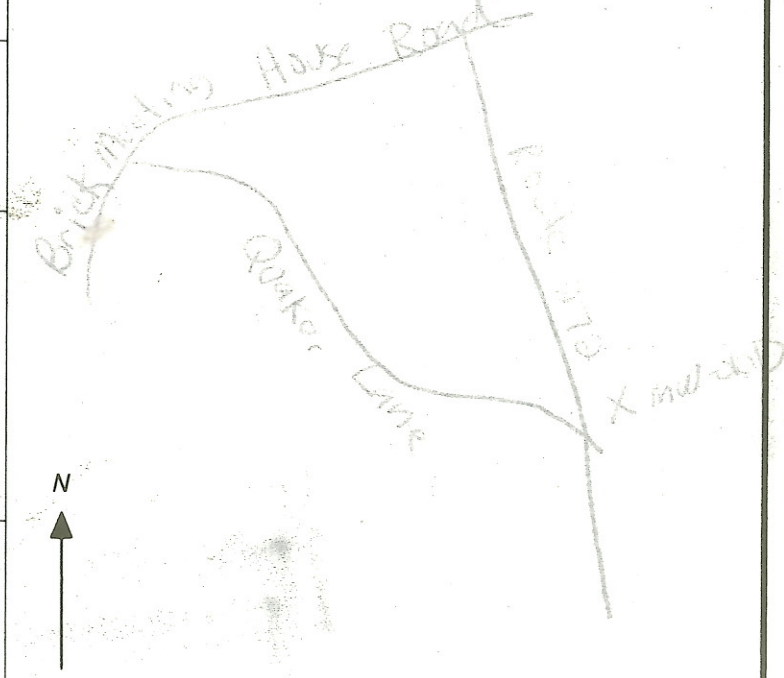
NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil — COUNTY NO.: 07

STATE SIGNATURE — INSERT S →

DATE ISSUED: 2/19/14 — CO SIGNATURE: [signature] — EXP. DATE: 2/18/15

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED=

MDE/WMA/PER.071

④ DRILLER

C 1 20332

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1510

ST/CO USE ONLY
DATE Received MM DD YY (8–13)

DATE WELL COMPLETED MM DD YY 03 12 14 (15–20)

Depth of Well 22 70' 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 14 - 0017 (28–37)

OWNER PATEL PRAGNESH (last name, first name)

WELL SITE ADDRESS 2302 NORTHEAST CT. TOWN NORTHEAST

SUBDIVISION MS # 3547 SECTION LOT 1

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE BRN CLAYEY SILT	6	8	
TAN/GREY MOTTLED SILT, LITTLE F-SAND	8'	23'	
GREY/BRN, SILT TR. F-SAND, TR CLAY	23'	45'	✓
TAN/GREY, SILT SOME CLAY TR F-SAND W/OCC. GRAVELS	45	67	✓
GREY WEATHERED ROCK/ROCK (GRANITE)	67'	70'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 132

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT C M (45 46) BENTONITE CLAY B C (45 46)

NO. OF BAGS 7 NO. OF POUNDS 688

GALLONS OF WATER 36.4

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (48 TOP 52) to 47' ft. (54 BOTTOM 58)
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

S T STEEL — C O CONCRETE — P L PLASTIC — O T OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
Ph (60 61)	2" (63 64)	50 (66 70)

EACH CASING — OTHER CASING (if used)

	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

S T STEEL — B R BRASS BRONZE — H O OPEN HOLE — P L PLASTIC — O T OTHER

C 2 (1 2)

DEPTH (nearest ft.)

EACH SCREEN

1	Ph (8 9)	50' (11 15)	70' (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 .02 2 ____ 3 ____

DIAMETER OF SCREEN 2" (56 60) (NEAREST INCH)

	from	to
GRAVEL PACK	47'	70'
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		(68)

MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (70) — (E.R.O.S.) (72) — W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) ____ (11 15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 13.8 ft. (17 20)

WHEN PUMPING ____ ft. (22 25)

TYPE OF PUMP USED (for test)

A air (27) — P piston (27) — T turbine (27)
C centrifugal (27) — R rotary (27) — O other (describe below) (27)
J jet (27) — S submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above (49) / – below (49) LAND SURFACE 0 (50 51) (nearest foot)

LATITUDE 3 _ . _ _ _ _ _ _
LONGITUDE 7 _ . _ _ _ _ _ _
(DEFAULT COORD. WGS 84)
NOTES:

MDE/WMA/PER.071

DRILLER

C 1 20332

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1510

ST/CO USE ONLY DATE Received MM DD YY (8–13)

DATE WELL COMPLETED MM DD YY 23 12 14 (15–20)

Depth of Well 22 70 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE - 14 - 0017 (28–37)

OWNER PATEL PRAGNESH (last name, first name)

WELL SITE ADDRESS 2302 NORTHEAST Ch. TOWN NORTHEAST

SUBDIVISION MS # 3547 SECTION ____ LOT 1

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE BRN CLAYEY SILT		8'	
TAN/GREY MOTTLED SILT, LITTLE F-SAND	8'	23'	
GREY/BRN, SILT TR. F-SAND TO CLAY	23'	45'	✓
TAN/GREY SILT SOME CLAY TR. F-SAND W/OCC. GRAVELS	45	67	✓
GREY WEATHERED ROCK/ROCK (GRANITE)	67'	70'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45 46) BENTONITE CLAY [BC] (45 46)

NO. OF BAGS 7 NO. OF POUNDS 658

GALLONS OF WATER 36.4

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 47' (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
Ph (60 61)	2" (63 64)	50 (66–70)

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1 2)

DEPTH (nearest ft.)

EACH SCREEN			
1	Ph (8 9)	50' (11–15)	70' (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 .02 2 ____ 3 ____

DIAMETER OF SCREEN 2" (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	from	to
	47'	70'

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) ____ TELESCOPE CASING

(E.R.O.S.) (72) ____ LOG INDICATOR

W Q (74 75 76) ____ OTHER DATA

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) ____ (11–15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 13.8 (17–20) ft.

WHEN PUMPING ____ (22–25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)

[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)

[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. ____ (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) ____ (31–35)

PUMP HORSE POWER ____ (37–41)

PUMP COLUMN LENGTH (nearest ft.) ____ (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above (49) / [–] below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _

LONGITUDE 7 _ . _ _ _ _ _ _

(DEFAULT COORD. WGS 84)

NOTES:

MDE/WMA/PER.071

OWNER

pd. $ 20.00 # 229297 DLL

EMERGENCY/TEMP NO. IF ANY

B 1 05221 — SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please type

STATE PERMIT NUMBER: CE — 14 — 0018

fill in this form completely

Date Received (APA): 2/14/14

OWNER INFORMATION

Last Name Owner First Name

Street or RFD

Town State Zip

DRILLER INFORMATION

Driller's Name M D License No.

Firm Name

Address

Signature Date 2/10/14

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

B 3 LOCATION OF WELL

R1075

COUNTY

SUBDIVISION MS # 3569

SECTION LOT

NEAREST TOWN

B 4

SOURCES OF DRILLING WATER
1.
2.
3.

STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N W E WEST EAST S SOUTH

DISTANCE FROM ROAD

ENTER FT OR MI

TAX MAP: BLK: PARCEL

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- I INDUSTRIAL, COMMERCIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- O OPEN LOOP GEOTHERMAL
- C CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil 07

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 2/19/14 2/18/15

CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

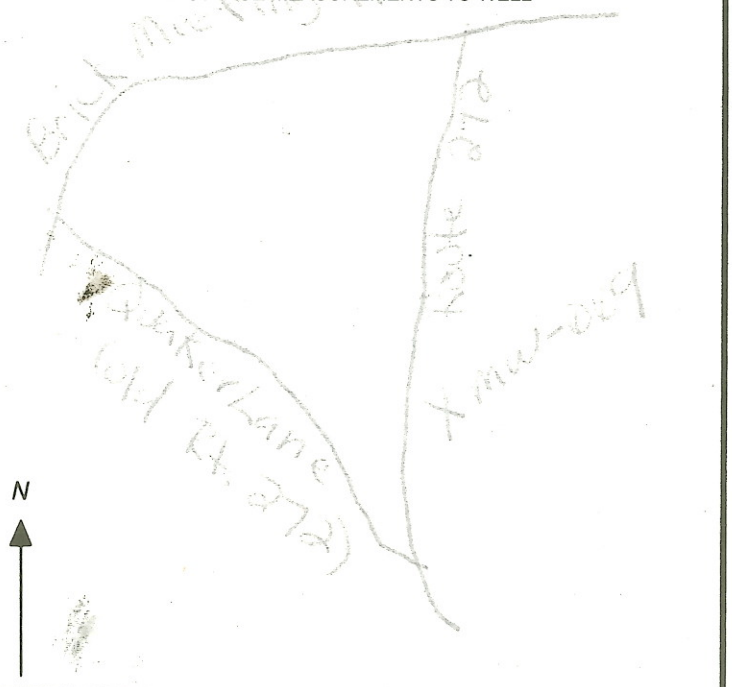
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER G

PERMIT No. CE — 14 — 0018

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED=

MDE/WMA/PER.071

④ DRILLER

C 1 20334

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1075

ST/CO USE ONLY
DATE Received MM DD YY 13

DATE WELL COMPLETED MM 03 DD 11 YY 14 (15–20)

Depth of Well 22 30 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-14[redacted]-0018 (28–37)

OWNER PATEL (last name) PRAGNESH (first name)

WELL SITE ADDRESS 2294 NORTHEAST RD. TOWN NORTHEAST

SUBDIVISION MS# 3569 SECTION LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE BRN, CLAYEY SILT, -TR.F-GRAVEL	6"	10'	
TAN/GREY MOTTLED SILT, LITTLE F-SAND TR. CLAY	10'	22'	
GREY/BRN, SILT TR. F-SAND	22'	30'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M G D 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45–46) BENTONITE CLAY [BC] (45–46)

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48) TOP (52) ft. to 17' (54) BOTTOM (58) ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60–61)	2" (63–64)	20' (66–70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1–2)

DEPTH (nearest ft.) — EACH SCREEN

1	PL (8–9)	20' (11–15)	30' (17–21)
2	(23–24)	(26–30)	(32–36)
3	(38–39)	(41–45)	(47–51)

SLOT SIZE 1 .01 2 ____ 3 ____

DIAMETER OF SCREEN 2" (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 17' to 30' (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (70) TELESCOPE CASING; (E.R.O.S.) (72) LOG INDICATOR; W Q (74–76) OTHER DATA

C 3 (1–2)

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8–9)

PUMPING RATE (gal. per min.) 2 (11–15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 13.1' (17–20) ft.

WHEN PUMPING ____ (22–25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)
[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)
[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)
[+] (49) above / [–] (49) below — LAND SURFACE 0 (50–51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _
LONGITUDE 7 _ . _ _ _ _ _ _
(DEFAULT COORD. WGS 84)
NOTES:

MDE/WMA/PER.071

DRILLER

C 1 20334 — SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1075

ST/CO USE ONLY — DATE Received MM DD YY (13)

DATE WELL COMPLETED MM 03 DD 11 YY 14 (15–20)

Depth of Well 22 3 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE -14 - 0018 (28–37)

OWNER PATEL PRAGNESH (last name, first name)

WELL SITE ADDRESS 2714 NORTHEAST RD. TOWN NORTHEAST

SUBDIVISION MS# 3569 SECTION ____ LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE BRN, CLAYEY SILT, -TR.F-GRAVEL	6"	10'	
TAN/GREY MOTTLED SILT, WITH F-SAND TR. CLAY	10'	22'	
GREY/BRN, SILT TR. F-SAND	22'	30'	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M D 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: __ D __

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45 46) BENTONITE CLAY [BC] (45 46)

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. (48 TOP 52) to 17' ft. (54 BOTTOM 58)

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2" (63 64)	20' (66 70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 — DEPTH (nearest ft.)

EACH SCREEN

1	PL (8 9)	20' (11 15)	30' (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 .01 2 ____ 3 ____

DIAMETER OF SCREEN 2" (56 60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 17' to 30' (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING — (E.R.O.S.) (72) LOG INDICATOR — W Q (74 75 76) OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) 2 (11 15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 13.1' (17 20) ft.

WHEN PUMPING ____ (22 25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)
[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)
[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 35)

PUMP HORSE POWER (37 41)

PUMP COLUMN LENGTH (nearest ft.) (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)
[+] above (49) / [–] below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _
LONGITUDE 7 _ . _ _ _ _ _ _
(DEFAULT COORD. WGS 84)
NOTES:

MDE/WMA/PER.071

OWNER

ad. # 30.00 #229297 DLL

EMERGENCY/TEMP NO. IF ANY

B 1 05222 — SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please type

STATE PERMIT NUMBER CE – 14 – 0019

fill in this form completely

Date Received (APA) 2/14/14

OWNER INFORMATION

Last Name: Pabl Owner First Name: Reginald

Street or RFD: 2815 Northeast Road

Town: Northeast State: MD Zip: 21901

DRILLER INFORMATION

Driller's Name: Howard Hammond Driller License No.: M D 138

Firm Name: Lockwood Service Inc

Address: 68 Lewis Rd Hockessin DE 19707

Signature: Brandee Date: 2/19/14

B 3 LOCATION OF WELL

COUNTY: Cecil 07

SUBDIVISION: MS # 3569

SECTION: LOT: 2

NEAREST TOWN: Calvert

B 4

SOURCES OF DRILLING WATER
1.
2.
3.

STREET ADDRESS: 2794 Northeast Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) WEST (W) EAST (E) SOUTH (S)

DISTANCE FROM ROAD: 30 FT

ENTER FT OR MI

TAX MAP: 4 BLK: 2 PARCEL: 263

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- [D] DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- [F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- [I] INDUSTRIAL, COMMERCIAL, DEWATERING
- [P] PUBLIC WATER SUPPLY WELL
- [T] TEST, OBSERVATION, MONITORING
- [O] OPEN LOOP GEOTHERMAL
- [C] CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

COUNTY NAME: Cecil COUNTY NO.: 07

STATE SIGNATURE: INSERT S

DATE ISSUED: 2/19/14 CO SIGNATURE: EXP. DATE: 2/19/15

APPROXIMATE DEPTH OF WELL: 140 FEET

APPROXIMATE DIAMETER OF WELL: 2 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

CABLE REVerse-ROTary DRive-POINT

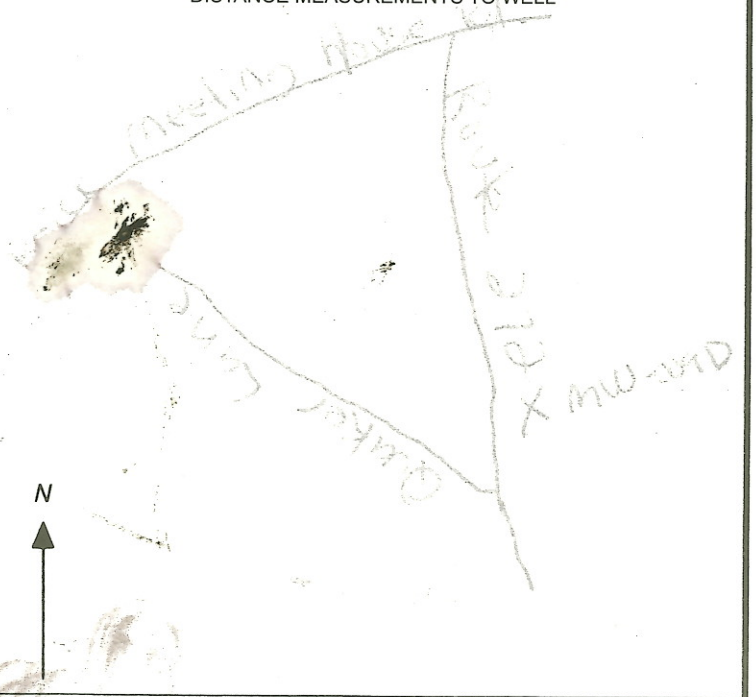
other

REPLACEMENT OR DEEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
- [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- [D] THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER – – – – – – G – – –

PERMIT No. CE – 14 – 0019

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED=

MDE/WMA/PER.071

④ DRILLER

C 1 20335

1 2 3 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1075

ST/CO USE ONLY
DATE Received
M DD YY
8 13

DATE WELL COMPLETED
MM DD YY
03 12 14
15 20

Depth of Well
22 68 26
(TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL"
CP - 14 - 0015
28 29 30 31 32 33 34 35 36 37

OWNER PATEL PRAGNESH
last name first name

WELL SITE ADDRESS 2719 NORTHEAST RD TOWN NORTHEAST

SUBDIVISION MS# 3569 SECTION ____ LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE BRN CLAY SILT, TR-F GRAVEL	6"	10'	
TAN/GREY MOTTLED SILT, LITTLE F SAND	10'	22'	
GREY/TAN SILT TR. F-SAND, TR. CLAY	22'	43'	✓
GREY/TAN, SILT, SOME CLAY, TR F SAND W/OCC. GRAVELS	43'	64'	✓
GREY, SILT, TR. CLAY W/WEATHER ROCK	64'	67'	
ROCK (GRANITE?)	67'	68	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M D 138

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y 44 no N 44

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT CM 45 46 BENTONITE CLAY BC 45 46

NO. OF BAGS 7 NO. OF POUNDS 238

GALLONS OF WATER 36.4

DEPTH OF GROUT SEAL (to nearest foot)
from 0' 48 TOP 52 ft. to 45' 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2" (63 64)	48' (66 70)

EACH CASING — OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL BR BRASS BRONZE HO OPEN HOLE PL PLASTIC OT OTHER

C 2 (1 2)

DEPTH (nearest ft.)

EACH SCREEN
1 PL (8 9) 48' (11 15) 68' (17 21)
2 (23 24) (26 30) (32 36)
3 (38 39) (41 45) (47 51)

SLOT SIZE 1 .02 2 ____ 3 ____

DIAMETER OF SCREEN 2" (56 60) (NEAREST INCH)

	from	to
GRAVEL PACK	45'	68'
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		68

MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) 2 (11 15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING 15.3 (17 20) ft.

WHEN PUMPING ____ (22 25) ft.

TYPE OF PUMP USED (for test)
A air (27) P piston (27) T turbine (27)
C centrifugal (27) R rotary (27) O other (describe below) (27)
J jet (27) S submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. ____ 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) ____ (31 35)

PUMP HORSE POWER ____ (37 41)

PUMP COLUMN LENGTH (nearest ft.) ____ (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)
+ above (49) / – below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _
LONGITUDE 7 _ . _ _ _ _ _ _
(DEFAULT COORD. WGS 84)
NOTES:

MDE/WMA/PER.071

DRILLER

C 1 20335

SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER H1075

ST/CO USE ONLY DATE Received MM DD YY 8 13

DATE WELL COMPLETED MM DD YY 03 12 14 (15–20)

Depth of Well 22 68 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" CR - 14 - 0019 (28–37)

OWNER PATEL PRAGNESH (last name, first name)

WELL SITE ADDRESS 27 TH NORTHEAST RD TOWN NORTH EAST

SUBDIVISION MS# 3569 SECTION LOT 2

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
TOPSOIL	0	6"	
TAN/ORANGE ARN CLAY SINT. TR. F GRAVEL	6"	10'	
TAN/GREY MOTTLED SINT. WITH F SAND	10'	22'	
GREY/TAN SINT TR. F SAND, TR. CLAY	22'	43'	✓
GREY/TAN SINT, SOME CLAY. TR. F SAND W/ LOC. GRAVELS	43'	64'	✓
GREY SINT TR. CLAY W/ WEATHER ROCK	64'	67'	
ROCK (GRANITE)	67'	68	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO.: M D 138

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45 46) BENTONITE CLAY [BC] (45 46)

NO. OF BAGS 7 NO. OF POUNDS 658

GALLONS OF WATER 36.4

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 45 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	2" (63 64)	48' (66–70)

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2

DEPTH (nearest ft.)

EACH SCREEN			
1	PL (8 9)	48' (11–15)	68' (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 .02 2 3

DIAMETER OF SCREEN 2" (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	from	to
	45'	68'

68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 1 (8 9)

PUMPING RATE (gal. per min.) 2 (11–15)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 15.3 (17–20) ft.

WHEN PUMPING (22–25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)

[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)

[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] (49) above

[–] (49) below

LAND SURFACE 0 (50 51) (nearest) foot)

LATITUDE 3 _ . _ _ _ _ _ _

LONGITUDE 7 _ . _ _ _ _ _ _

(DEFAULT COORD. WGS 84)

NOTES:

MDE/WMA/PER.071

OWNER