



RECEIVED

By OCD; Dr. Oberding at 10:55 am, Mar 06, 2015

Amanda Trujillo
Senior Environmental Coordinator

March 5, 2015

Oil Conservation Division
District 1 – Hobbs
1625 N. French Drive
Hobbs, New Mexico 88240

**Re: Dos Abuelos Fee #2H
30-025-41537
Sec. 20, T18S-R34E
Lea County, NM**

APPROVED

By OCD; Dr. Oberding at 10:55 am, Mar 06, 2015

Dr. Tomas Oberding,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. The plan is in response to the C-141 Initial report dated November 14, 2014.

Background

The release was caused when a snap action dump on the oil side of a FWKO froze, not allowing the dump to open. The knockout filled with fluid and overflowed to the flare. 100 bbls of oil was sent through the flare, impacting the pasture to the north of the location. Vacuum trucks were dispatched and 70 bbls were able to be recovered. An impacted area outside the berm measures approximately 7.84 acres. This area was addressed with an initial application of Microblaze.

Groundwater

Based on information from the NM Office of State Engineer, the release area would be classified at a site ranking of Zero due to the depth of groundwater at approximately 110'.

Soil Assessment and Analytical Results

According to the NRCS soil report, this area is classified as a Kimbrough-Lea Complex which characterizes a typical profile by 0-6 inches of gravelly loam and 6 – 16 inches of cemented material. A restrictive feature of petrocalcic material can be found at a depth of 4 – 20 inches.

Initial surface soil samples were taken on 12-01-2014 at a 4" depth. Samples indicate TPH and BTEX exceed RRALs for a site ranking of zero for 3 of the 5 sampling points taken. Additional samples were taken on 2-04-2015 to further delineate the extent of the impact (see attached site diagram).

Work Plan

COG proposes the excavation of the 3.21 acres (see diagram) at a depth of 6". The area will be backfilled with like material.

If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact me with any questions or concerns at (575) 748-6940.

Sincerely,



Amanda Trujillo

Senior Environmental Scientist

Enclosed

- (1) C-141 Initial - Copy
- (2) Site Diagram and Summary Table
- (3) Laboratory Analysis

District I
1625 N French Dr., Hobbs, NM 88240
District II
811 S First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: Dos Abuelos Fee #1H	Facility Type: Battery

Surface Owner: Fee	Mineral Owner: Fee	API No. 30-025-41346
--------------------	--------------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	20	18S	34E	190'	North	2310	West	Eddy

Latitude 32.7399552180099 Longitude -103.583654122109

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 100 bbls	Volume Recovered: 70 bbls
Source of Release: Failed dump valve caused a release through the flare	Date and Hour of Occurrence: 11/14/2014 12:00 am	Date and Hour of Discovery: 11/14/2014 10:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding - NMOCD Hobbs	
By Whom? Amanda Trujillo	Date and Hour: 11/14/2014 2:01 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

This release was caused when a snap action dump on oil side of FWKO froze not allowing dump to open. The knockout filled with fluid and overflowed to flare. The high level float failed to activate the inlet valve to shut it off so the well continued to produce. Vacuum trucks and a roustabout crew were dispatched to clean the site.

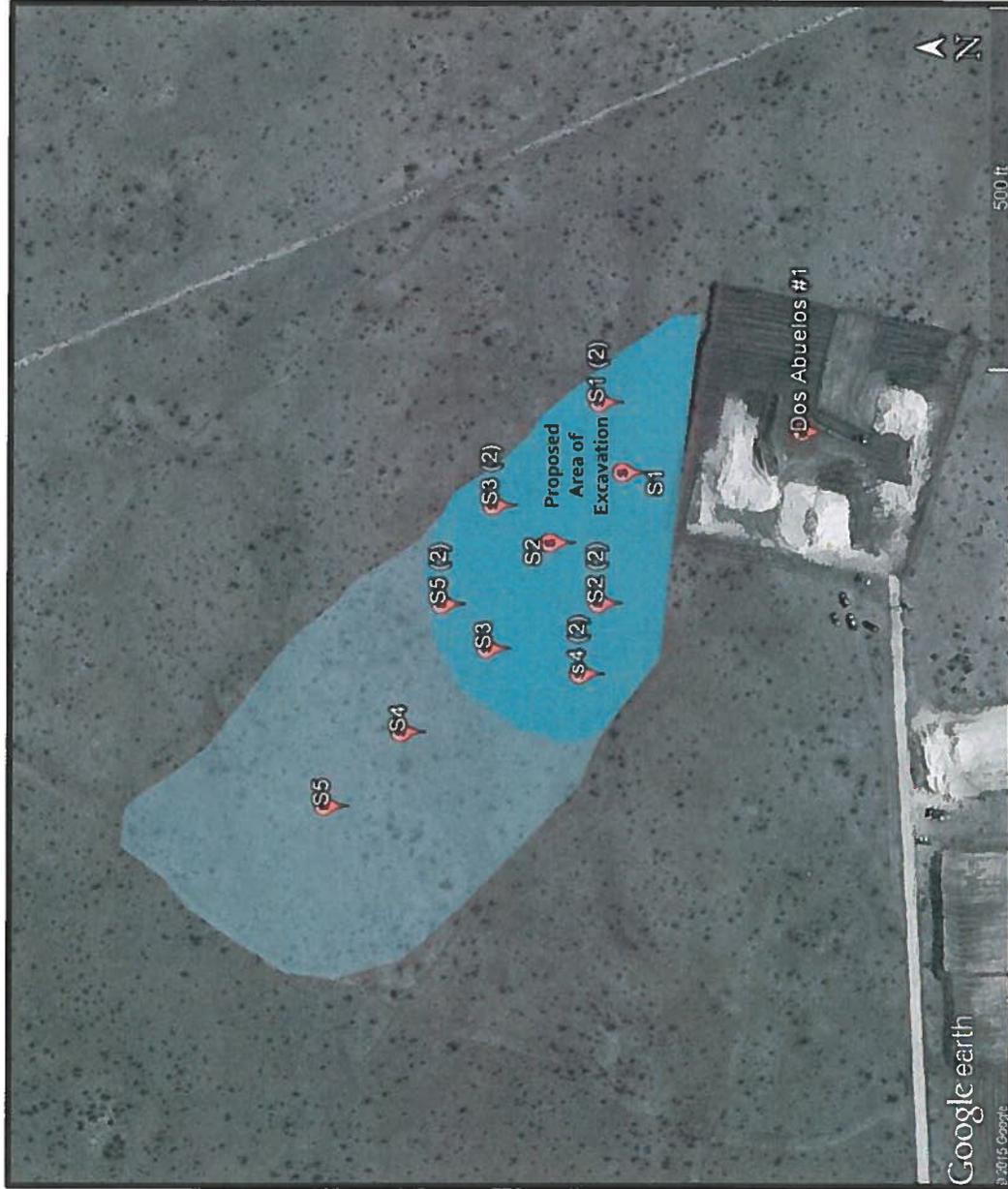
Describe Area Affected and Cleanup Action Taken.*

The impacted area can be found to the north of the battery in the pasture. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Amanda Trujillo	Approved by Environmental Specialist:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: atrujillo@concho.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: December 1, 2014	Phone: 575-748-6940	

* Attach Additional Sheets If Necessary



Site Ranking: Zero

Depth to GW per SEO: 110'

S1	DRO	GRO	TPH	BTEX
4"	14200	2210	16410	181
S2	DRO	GRO	TPH	BTEX
4"	16900	3220	20120	348
S3	DRO	GRO	TPH	BTEX
4"	7410	375	7785	12
S4	DRO	GRO	TPH	BTEX
4"	967	<10.0	967	<0.300
S5	DRO	GRO	TPH	BTEX
4"	237	<10.0	237	<0.300
S1 (2)	DRO	GRO	TPH	BTEX
16"	140	13.6	153.6	<0.300
18"	1440	15.7	1455.7	<0.300
S2 (2)	DRO	GRO	TPH	BTEX
16"	1830	<50.0	1830	<0.300
20"	346	<10.0	346	<0.300
S3 (2)	DRO	GRO	TPH	BTEX
15"	220	<10.0	220	<0.300
26"	254	<10.0	254	<0.300
S4 (2)	DRO	GRO	TPH	BTEX
17"	75	<10.0	75	<0.300
S5 (2)	DRO	GRO	TPH	BTEX
19"	21.4	<10.0	21.4	<0.300
20"	<10.0	<10.0	<10.0	<0.300

Bold values exceed RRALs per NMOCD



February 09, 2015

GARRETT MERKET
COG OPERATING
P. O. BOX 1630
ARTESIA, NM 88210

RE: DOS ABUELOS

Enclosed are the results of analyses for samples received by the laboratory on 02/04/15 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1- 16" (H500316-01)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8		
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2		
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4		
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6		
Total BTEX	<0.300	0.300	02/06/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	13.6	10.0	02/04/2015	ND	206	103	200	8.01		
DRO >C10-C28	140	10.0	02/04/2015	ND	222	111	200	14.3		

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 95.8 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1- 18" (H500316-02)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8		
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2		
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4		
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6		
Total BTEX	<0.300	0.300	02/06/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	15.7	10.0	02/04/2015	ND	206	103	200	8.01		
DRO >C10-C28	1440	10.0	02/04/2015	ND	222	111	200	14.3		

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 109 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2- 16" (H500316-03)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	02/05/2015	ND	182	91.2	200	12.8	
DRO >C10-C28	1830	50.0	02/05/2015	ND	179	89.7	200	0.285	

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 116 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2- 20" (H500316-04)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/05/2015	ND	182	91.2	200	12.8	
DRO >C10-C28	346	10.0	02/05/2015	ND	179	89.7	200	0.285	

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.7 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S3- 15" (H500316-05)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/05/2015	ND	182	91.2	200	12.8	
DRO >C10-C28	220	10.0	02/05/2015	ND	179	89.7	200	0.285	

Surrogate: 1-Chlorooctane 113 % 47.2-157

Surrogate: 1-Chlorooctadecane 103 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S3- 26" (H500316-06)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/05/2015	ND	182	91.2	200	12.8	
DRO >C10-C28	254	10.0	02/05/2015	ND	179	89.7	200	0.285	

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 98.4 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S4- 17" (H500316-07)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8		
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2		
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4		
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6		
Total BTEX	<0.300	0.300	02/06/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/05/2015	ND	182	91.2	200	12.8		
DRO >C10-C28	75.0	10.0	02/05/2015	ND	179	89.7	200	0.285		

Surrogate: 1-Chlorooctane 102 % 47.2-157

Surrogate: 1-Chlorooctadecane 103 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 02/04/2015
 Reported: 02/09/2015
 Project Name: DOS ABUELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/04/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S5- 19" (H500316-08)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/06/2015	ND	195	97.3	200	2.01	
DRO >C10-C28	21.4	10.0	02/06/2015	ND	193	96.3	200	9.21	

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.7 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	DOS ABUELOS	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: S5- 20" (H500316-09)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/06/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	<0.050	0.050	02/06/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	<0.050	0.050	02/06/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	<0.150	0.150	02/06/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	<0.300	0.300	02/06/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/06/2015	ND	195	97.3	200	2.01	
DRO >C10-C28	<10.0	10.0	02/06/2015	ND	193	96.3	200	9.21	

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 109 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories*=**Accredited Analyte**

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



December 05, 2014

GARRETT MERKET
COG OPERATING
P. O. BOX 1630
ARTESIA, NM 88210

RE: DOS ABRELOS

Enclosed are the results of analyses for samples received by the laboratory on 12/01/14 13:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 12/01/2014
 Reported: 12/05/2014
 Project Name: DOS ABRELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 12/01/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S1-6" (H403665-01)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	12/02/2014	ND	1.85	92.4	2.00	3.28		
Toluene*	21.9	2.00	12/02/2014	ND	1.82	91.1	2.00	2.76		
Ethylbenzene*	68.1	2.00	12/02/2014	ND	1.72	85.8	2.00	4.19		
Total Xylenes*	91.4	6.00	12/02/2014	ND	5.23	87.2	6.00	4.56		
Total BTEX	181	12.0	12/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 61-154

TPH 8015M		mg/kg		Analyzed By: CK							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	2210	100	12/01/2014	ND	194	97.1	200	3.40			
DRO >C10-C28	14200	100	12/01/2014	ND	193	96.6	200	4.16			

Surrogate: 1-Chlorooctane 220 % 47.2-157

Surrogate: 1-Chlorooctadecane 358 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 12/01/2014
 Reported: 12/05/2014
 Project Name: DOS ABRELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 12/01/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S2-6" (H403665-02)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	12/02/2014	ND	1.85	92.4	2.00	3.28		
Toluene*	70.7	2.00	12/02/2014	ND	1.82	91.1	2.00	2.76		
Ethylbenzene*	122	2.00	12/02/2014	ND	1.72	85.8	2.00	4.19		
Total Xylenes*	155	6.00	12/02/2014	ND	5.23	87.2	6.00	4.56		
Total BTEX	348	12.0	12/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 61-154

TPH 8015M		mg/kg		Analyzed By: CK							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	3220	100	12/01/2014	ND	194	97.1	200	3.40			
DRO >C10-C28	16900	100	12/01/2014	ND	193	96.6	200	4.16			

Surrogate: 1-Chlorooctane 215 % 47.2-157

Surrogate: 1-Chlorooctadecane 420 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 12/01/2014
 Reported: 12/05/2014
 Project Name: DOS ABRELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 12/01/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S3-6" (H403665-03)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.200	0.200	12/02/2014	ND	1.85	92.4	2.00	3.28		
Toluene*	0.218	0.200	12/02/2014	ND	1.82	91.1	2.00	2.76		
Ethylbenzene*	3.55	0.200	12/02/2014	ND	1.72	85.8	2.00	4.19		
Total Xylenes*	8.22	0.600	12/02/2014	ND	5.23	87.2	6.00	4.56		
Total BTEX	12.0	1.20	12/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 61-154

TPH 8015M		mg/kg		Analyzed By: CK							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	375	50.0	12/01/2014	ND	194	97.1	200	3.40			
DRO >C10-C28	7410	50.0	12/01/2014	ND	193	96.6	200	4.16			

Surrogate: 1-Chlorooctane 213 % 47.2-157

Surrogate: 1-Chlorooctadecane 237 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	12/01/2014	Sampling Date:	12/01/2014
Reported:	12/05/2014	Sampling Type:	Soil
Project Name:	DOS ABRELOS	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S4-6" (H403665-04)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49		
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81		
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02		
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67		
Total BTEX	<0.300	0.300	12/03/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 61-154

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/01/2014	ND	194	97.1	200	3.40		
DRO >C10-C28	967	10.0	12/01/2014	ND	193	96.6	200	4.16		

Surrogate: 1-Chlorooctane 126 % 47.2-157

Surrogate: 1-Chlorooctadecane 162 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 GARRETT MERKET
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 12/01/2014
 Reported: 12/05/2014
 Project Name: DOS ABRELOS
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 12/01/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S5-6" (H403665-05)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49		
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81		
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02		
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67		
Total BTEX	<0.300	0.300	12/03/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 61-154

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/01/2014	ND	194	97.1	200	3.40		
DRO >C10-C28	237	10.0	12/01/2014	ND	193	96.6	200	4.16		

Surrogate: 1-Chlorooctane 114 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

