



March 23, 2015

Oil Conservation Division
District 2 – Artesia
811 S. First St.
Artesia, NM 88210

Re: Edsel's Wand Waver Fee #1
30-015-32818
Sec. 6, T24S-R28E
Eddy County, NM

Mr. Mike Bratcher,

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 December 4, 2014.

Background

The release was due to a pump failure causing the tanks to run over resulting in the release of 80 barrels of oil and 120 barrels of produced water. All fluid was contained within the unlined facility of which 78 barrels of oil and 118 barrels of produced water were recovered. The impacted area was initially excavated to a depth of approximately 6" and all impacted material was hauled to an NMOCD approved disposal facility.

Groundwater

Based on the information obtained on the NMOSE website (Sec. 6, T24S-R28E), the release area would be classified at a site ranking of Ten with depth to groundwater at approximately 70'.

Soil Assessment and Analytical Results

Sample points S1 and S2 were selected based on the most practical sampling points within the existing infrastructure of the battery and proximity to the initial point of release. The attached Site Diagram depicts the approximate location of the sample points chosen along with a Sample Summary Table which summarizes the included Analytical Results. Upon initial sampling with the use of a backhoe (labeled as S), samples could only be obtained to a depth of 4.5' to 5' due to a petrocalcic barrier that was impenetrable by the backhoe. A soil coring unit (samples labeled with a B) was brought in on February 29, 2015, to penetrate the petrocalcic barrier encountered

during the initial delineation. Sample points were chosen in as close proximity to the initial sample points as possible.

Sample results show TPH and BTEX levels to be above RRAL's for S1 to a depth of 4' and S2 to a depth of 5'. Sample results taken with the coring unit at a depth of 6' show that the petrocalcic barrier worked as an aid in the reduction of TPH and BTEX levels. Samples taken with the coring unit were taken in 6" increments, for example, a core taken at a depth of 6' was actually taken from 5.5' to 6'. No core was taken for S1 at a depth of 5'.

Work Plan

COG Operating LLC proposes the excavation of the following sample areas:

S1 - Excavate to a depth of 5.5' and haul for disposal.

S2 - Excavate to a depth of 5.5' and haul for disposal.

Areas excavated within the battery will be handled in the most practical manner to promote worker safety and stability of the existing infrastructure. The excavated areas will be backfilled with clean caliche immediately following excavation. All impacted material will be hauled to an NMOCD approved disposal facility.

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,



Lupe Carrasco
Environmental Coordinator

Enclosure(s): Site Diagram
Analytical Results
C-141 Initial (Copy)

Edsel's Wand Waver Fee #1

November 26, 2014

Sec. 6, T24S-28E

Released: 80 B/O; 120 B/PW
Recovered: 78 B/O; 118 B/PW

S1	GRO	DRO	TPH	BTEX	CI-
1'	4990	10200	15190	280	144
2'	4260	8740	13000	229	240
3'	ND	ND	ND	ND	128
4'	16300	29200	45500	499	ND
B1	GRO	DRO	TPH	BTEX	CI-
6'	ND	ND	ND	ND	
S2	GRO	DRO	TPH	BTEX	CI-
1'	5160	13600	18760	276	ND
2'	127	520	647	15.9	32
3'	ND	ND	ND	1.31	ND
4'	224	1010	1234	14.8	ND
5'	16400	32200	48600	843	ND
B2	GRO	DRO	TPH	BTEX	CI-
6'	ND	21.5	21.5	1.9	

Legend
Release Area



Google earth



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

December 17, 2014

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: EDESEL'S WAND WAVER FEE #1

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 15:35.

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/ga/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,

Caley D. Keene

Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 1' (H403800-01)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	9.68	1.00	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	93.3	1.00	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	30.5	1.00	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	147	3.00	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	280	6.00	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	12/16/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	4990	50.0	12/16/2014	ND	194	96.9	200	3.46		
DRO >C10-C28	10200	50.0	12/16/2014	ND	206	103	200	3.31		

Surrogate: 1-Chlorooctane 229 % 47.2-157

Surrogate: 1-Chlorooctadecane 168 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 2' (H403800-02)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	7.18	1.00	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	73.7	1.00	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	25.2	1.00	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	123	3.00	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	229	6.00	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	12/16/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	4260	50.0	12/16/2014	ND	194	96.9	200	3.46		
DRO >C10-C28	8740	50.0	12/16/2014	ND	206	103	200	3.31		

Surrogate: 1-Chlorooctane 210 % 47.2-157

Surrogate: 1-Chlorooctadecane 161 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 3' (H403800-03)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	0.107	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	<0.050	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	<0.300	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/16/2014	ND	400	100	400	3.92	

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	12/16/2014	ND	194	96.9	200	3.46	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	206	103	200	3.31	

Surrogate: 1-Chlorooctane 97.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 93.4 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDSLE'S WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 1 - 4' (H403800-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	24.5	2.00	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	185	2.00	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	50.8	2.00	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	239	6.00	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	499	12.0	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	16300	100	12/16/2014	ND	194	96.9	200	3.46		
DRO >C10-C28	29200	100	12/16/2014	ND	206	103	200	3.31		

Surrogate: 1-Chlorooctane 370 % 47.2-157

Surrogate: 1-Chlorooctadecane 372 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 1' (H403800-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.30	1.00	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	80.3	1.00	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	31.6	1.00	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	158	3.00	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	276	6.00	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	5160	50.0	12/16/2014	ND	194	96.9	200	3.46		
DRO >C10-C28	13600	50.0	12/16/2014	ND	206	103	200	3.31		

Surrogate: 1-Chlorooctane 186 % 47.2-157

Surrogate: 1-Chlorooctadecane 195 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 2' (H403800-06)

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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	0.689	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	1.63	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	13.6	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	15.9	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/16/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	127	10.0	12/16/2014	ND	194	96.9	200	3.46	
DRO >C10-C28	520	10.0	12/16/2014	ND	206	103	200	3.31	

Surrogate: 1-Chlorooctane 101 % 47.2-157

Surrogate: 1-Chlorooctadecane 102 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 3' (H403800-07)

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	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	0.201	0.050	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	0.140	0.050	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	0.966	0.150	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	1.31	0.300	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 61-154

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	400	100	400	3.92	

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	12/16/2014	ND	194	96.9	200	3.46	
DRO >C10-C28	<10.0	10.0	12/16/2014	ND	206	103	200	3.31	

Surrogate: 1-Chlorooctane 98.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 96.3 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDSEL'S WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 4' (H403800-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	2.13	0.200	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	1.67	0.200	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	11.0	0.600	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	14.8	1.20	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	416	104	400	0.00	

TPH B015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	224	10.0	12/16/2014	ND	194	96.9	200	3.46	
DRO >C10-C28	1010	10.0	12/16/2014	ND	206	103	200	3.31	

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 96.8 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 12/12/2014
Reported: 12/17/2014
Project Name: EDELS WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S 2 - 5' (H403800-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	28.4	5.00	12/17/2014	ND	1.82	91.1	2.00	8.15	
Toluene*	290	5.00	12/17/2014	ND	1.79	89.3	2.00	8.31	
Ethylbenzene*	91.7	5.00	12/17/2014	ND	1.70	85.2	2.00	8.56	
Total Xylenes*	433	15.0	12/17/2014	ND	5.18	86.3	6.00	8.51	
Total BTEX	843	30.0	12/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	16400	100	12/17/2014	ND	194	96.9	200	3.46		
DRO >C10-C28	32200	100	12/17/2014	ND	206	103	200	3.31		

Surrogate: 1-Chlorooctane 337 % 47.2-157

Surrogate: 1-Chlorooctadecane 458 % 52.1-176

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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.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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



Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Page 12 of 12

February 27, 2015

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: EDSSEL'S WAND WAVER FEE #1

Enclosed are the results of analyses for samples received by the laboratory on 02/25/15 10:30.

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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONEReceived: 02/25/2015
Reported: 02/27/2015
Project Name: EDESEL'S WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 02/20/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: B1 - 6' (H500529-01)**

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	02/26/2015	ND	2.20	110	2.00	1.69	
Toluene*	<0.050	0.050	02/26/2015	ND	2.01	100	2.00	1.58	
Ethylbenzene*	<0.050	0.050	02/26/2015	ND	2.33	117	2.00	1.78	
Total Xylenes*	<0.150	0.150	02/26/2015	ND	6.30	105	6.00	1.80	
Total BTEX	<0.300	0.300	02/26/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	02/25/2015	ND	198	98.8	200	2.00	
DRO >C10-C28	<10.0	10.0	02/25/2015	ND	197	98.3	200	3.22	

Surrogate: 1-Chlorooctane 85.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.4 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
LUPE CARRASCO
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2015
Reported: 02/27/2015
Project Name: EDSSEL'S WAND WAVER FEE #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/20/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: B2 - 6' (H500529-02)

BTEX 8021B			mg/kg		Analyzed By: ms				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.089	0.050	02/26/2015	ND	2.20	110	2.00	1.69	
Toluene*	0.487	0.050	02/26/2015	ND	2.01	100	2.00	1.58	
Ethylbenzene*	0.233	0.050	02/26/2015	ND	2.33	117	2.00	1.78	
Total Xylenes*	1.09	0.150	02/26/2015	ND	6.30	105	6.00	1.80	
Total BTEX	1.90	0.300	02/26/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 120 % 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	02/25/2015	ND	198	98.8	200	2.00	
DRO >C10-C28	21.5	10.0	02/25/2015	ND	197	98.3	200	3.22	

Surrogate: 1-Chlorooctane 84.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.9 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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**

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Celey D. Keene, Lab Director/Quality Manager

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

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

Form C-141
Revised August 8, 2011

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: Edsels Wand Waver Fee #1	Facility Type: Battery

Surface Owner: Fee	Mineral Owner: Fee	API No. 30-015-32818
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LOCATION OF RELEASE

Unit Letter E	Section 6	Township 24S	Range 28E	Feet from the 1650'	North/South Line North	Feet from the 660'	East/West Line West	County Eddy
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Latitude 32.2497891677047 Longitude-104.133426949615

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 80 bbls Oil; 120 bbls PW	Volume Recovered: 78 bbls Oil; 118 bbls PW
Source of Release: Transfer pump failure	Date and Hour of Occurrence: 11/22/2014 9:50 am	Date and Hour of Discovery: 11/22/2014 9:50 am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Amanda Trujillo	Date and Hour: 11/26/2014 7:42pm	
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.*

A transfer pump failed, which caused the tanks to run over. Vacuum trucks were dispatched recover any standing fluid and dispose of at an NMOCD approved facility. Repairs were made to the failed equipment.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was contained to inside the bermed area. This is an unlined facility. 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 4, 2014 Phone: 575-748-6940		

* Attach Additional Sheets If Necessary