

January 7, 2015

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

**Re: Blue Thunder 4 Federal #1
Sec. 4, T19S-R31E
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 August 15, 2014.

Background

The release was due to a hole in the bottom of a tank. All released fluid was contained within the unlined bermed facility. The release consisted of 8 barrels of oil and 33 barrels of produced water. Crews were dispatched to remove the top 6" of impacted material and all excavated material was hauled for disposal to a NMOCD approved facility.

Groundwater

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Zero with depth to groundwater at greater than 200'.

Soil Assessment and Analytical Results

Sample points noted on the attached Site Diagram are labeled with an S to denote initial sample points. Sample points labeled with a B were chosen outside of the initial sample point and were sampled with the use of a coring rig. The reason for the offset of the borings was due to the rigs inability to sample in the disturbed area created during initial sampling, but is representative of the initial sample areas. Sample point S1 was selected within the pooling area of the facility. Sample point selection was based on accessibility in relation to the berms, tanks, and existing infrastructure. It is important to note that B2 is the lowest point of the entire facility.

Samples were rendered initially with a backhoe but a petrocalcic barrier located at a depth of approximately 2' was impenetrable by the backhoe. A coring rig was brought in

to further delineate the samples. Sample results for TPH and BTEX were above RRAL's to a depth of 3' for sample point B1 and to a depth of 5' for B2. Chloride results proved to be non-detect at 2' for the initial sample labeled S1, therefore chlorides were not tested for B1 and B2.

Work Plan

COG Operating LLC proposes the following excavation based on delineation samples B1 & B2:

- **B1:** Excavate down to a depth of approximately 4'.
- **B2:** Excavate down to a depth of approximately 6'.

B1	GRO	DRO	TPH	BTEX	Cl-
3'	1650	1020	2670	212	NA
5'	819	690	1509	48.8	NA
7'	18.3	ND	18.3	ND	NA
9'	ND	ND	ND	ND	NA
B2	GRO	DRO	TPH	BTEX	Cl-
3'	1530	1190	2720	189	NA
5'	802	644	1446	158	NA
7'	15.3	ND	15.3	ND	NA
9'	ND	ND	ND	ND	NA

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) 748-6933.

Sincerely,



Lupe Carrasco
Environmental Coordinator

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

Blue Thunder 4 Federal #1

August 8, 2014

Sec. 4, T19S-R31E

Released: 8 B/O, 33 B/PW
Recovered: 0

Legend

S1	GRO	DRO	TPH	BTEX	CI-
1'	15900	6140	22040	1260	1600
2'	5420	2090	7510	301	ND
B1	GRO	DRO	TPH	BTEX	CI-
3'	1650	1020	2670	212	NA
5'	819	690	1509	48.8	NA
7'	18.3	ND	18.3	ND	NA
9'	ND	ND	ND	ND	NA
B2	GRO	DRO	TPH	BTEX	CI-
3'	1530	1190	2720	189	NA
5'	802	644	1446	158	NA
7'	15.3	ND	15.3	ND	NA
9'	ND	ND	ND	ND	NA

B1 S1 B2



Google earth

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

August 27, 2014

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: BLUE THUNDER 4 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 08/21/14 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
 LUPE CARRASCO
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 08/21/2014
 Reported: 08/27/2014
 Project Name: BLUE THUNDER 4 FEDERAL #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 08/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: S1-1' (H402570-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	37.4	10.0	08/25/2014	ND	2.04	102	2.00	7.31	
Toluene*	420	10.0	08/25/2014	ND	2.06	103	2.00	7.33	
Ethylbenzene*	82.6	10.0	08/25/2014	ND	2.09	104	2.00	7.14	
Total Xylenes*	724	30.0	08/25/2014	ND	6.44	107	6.00	6.96	
Total BTEX	1260	60.0	08/25/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	08/25/2014	ND	400	100	400	0.00	

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	15900	50.0	08/25/2014	ND	192	95.9	200	0.368		
DRO >C10-C28	6140	50.0	08/25/2014	ND	199	99.4	200	3.77		

Surrogate: 1-Chlorooctane 366 % 65.2-140

Surrogate: 1-Chlorooctadecane 175 % 63.6-154

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: 08/21/2014
 Reported: 08/27/2014
 Project Name: BLUE THUNDER 4 FEDERAL #1
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 08/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: S1-2' (H402570-02)

BTEx 8021B		mg/kg		Analyzed By: CK				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.20	1.00	08/25/2014	ND	2.04	102	2.00	7.31	
Toluene*	45.5	1.00	08/25/2014	ND	2.06	103	2.00	7.33	
Ethylbenzene*	43.3	1.00	08/25/2014	ND	2.09	104	2.00	7.14	
Total Xylenes*	210	3.00	08/25/2014	ND	6.44	107	6.00	6.96	
Total BTEX	301	6.00	08/25/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 214 % 89.4-126

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	08/26/2014	ND	400	100	400	0.00		

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	5420	50.0	08/25/2014	ND	196	98.2	200	1.17		
DRO >C10-C28	2090	50.0	08/25/2014	ND	211	106	200	2.94		

Surrogate: 1-Chlorooctane 190 % 65.2-140

Surrogate: 1-Chlorooctadecane 170 % 63.6-154

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*=Accredited Analyte

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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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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Celey D. Keene, Lab Director/Quality Manager



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

November 18, 2014

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: BLUE THUNDER 4 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 11/13/14 10:55.

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.

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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: NONE

Received: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B1 - 3' (H403501-01)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	4.77	1.00	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	64.9	1.00	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	13.4	1.00	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	129	3.00	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	212	6.00	11/17/2014	ND					

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

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1650	10.0	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	1020	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 185 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B1 - 5' (H403501-02)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	5.43	0.500	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	3.56	0.500	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	39.8	1.50	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	48.8	3.00	11/17/2014	ND					

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

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	819	10.0	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	690	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 171 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B1 - 7' (H403501-03)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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	18.3	10.0	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 129 % 47.2-157

Surrogate: 1-Chlorooctadecane 139 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B1 - 9' (H403501-04)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	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	<10.0	10.0	11/14/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 119 % 47.2-157

Surrogate: 1-Chlorooctadecane 128 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B2 - 3' (H403501-05)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.89	1.00	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	52.7	1.00	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	12.2	1.00	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	121	3.00	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	189	6.00	11/17/2014	ND					

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

TPH 8015M		mg/kg		Analyzed By: ms						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1530	10.0	11/14/2014	ND	187	93.7	200	3.04		
DRO >C10-C28	1190	10.0	11/14/2014	ND	191	95.6	200	4.30		

Surrogate: 1-Chlorooctane 195 % 47.2-157

Surrogate: 1-Chlorooctadecane 130 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B2 - 5' (H403501-06)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.01	0.500	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	42.3	0.500	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	10.8	0.500	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	103	1.50	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	158	3.00	11/17/2014	ND					

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

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	802	10.0	11/15/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	644	10.0	11/15/2014	ND	191	95.6	200	4.30	

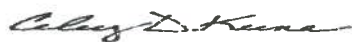
Surrogate: 1-Chlorooctane 167 % 47.2-157

Surrogate: 1-Chlorooctadecane 138 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B2 - 7' (H403501-07)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	0.131	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 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	15.3	10.0	11/15/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 120 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 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: 11/13/2014
Reported: 11/18/2014
Project Name: BLUE THUNDER 4 FEDERAL #1
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: B2 - 9' (H403501-08)

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	11/17/2014	ND	1.83	91.4	2.00	8.21	
Toluene*	<0.050	0.050	11/17/2014	ND	1.76	88.2	2.00	6.70	
Ethylbenzene*	<0.050	0.050	11/17/2014	ND	1.75	87.4	2.00	6.66	
Total Xylenes*	<0.150	0.150	11/17/2014	ND	5.27	87.9	6.00	6.78	
Total BTEX	<0.300	0.300	11/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	11/15/2014	ND	187	93.7	200	3.04	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	191	95.6	200	4.30	

Surrogate: 1-Chlorooctane 124 % 47.2-157

Surrogate: 1-Chlorooctadecane 135 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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Celey D. Keene, Lab Director/Quality Manager



COG Operating LLC

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District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

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:	Blue Thunder 4 Federal #1	Facility Type:	Battery

Surface Owner: Federal	Mineral Owner: Federal	Lease No. (API#) 30-015-34125
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	4	19S	31E	810	South	660	West	30-015-34125

Latitude N32° 41.070 Longitude W103° 52.844

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Oil and Produced Water	Oil: 8 bbls ; PW: 33 bbls	Oil: 0 bbls ; PW: 0 bbls
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Hole in tank bottom	8/4/2014 9:30 am	8/4/2014 10:40 am
Was Immediate Notice Given?	If YES, To Whom?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	Mike Bratcher - OCD; James Amos - BLM	
By Whom? Amanda Trujillo	Date and Hour	8/4/2014 6:09 pm
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

If a Watercourse was Impacted, Describe Fully.*

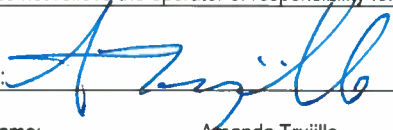
Describe Cause of Problem and Remedial Action Taken.*

A hole in the tank bottom caused a release. The facility was unlined but crews were able to excavate impacted material and dispose of it at an approved NMOCD approved facility.

Describe Area Affected and Cleanup Action Taken.*

The impacted area can be found within the bermed area around the tanks. 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 District Supervisor:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: atrujillo@concho.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date August 15, 2014	Phone: 575-746-2010		

* Attach Additional Sheets If Necessary