

January 12, 2016

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

Re: Flying Squirrel Federal #1H
30-015-42608
Sec. 30, T18S-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 request is in response to the C-141 Initial report dated August 11, 2015.

Background

This release was caused by a gasket failure on a fresh water knockout resulting in the release of 20 barrels of oil and 8 barrels of produced water of which 3 barrels of oil and 3 barrels of produced water were recovered. This release caused a spray that impacted approximately 0.32 acres of pasture on the north side of the location. Vacuum trucks were dispatched to recover all standing fluid. Soapy water and Microblaze were applied to the impacted soil and vegetation as an initial remediation response.

Groundwater

Based on the Chevron-Texaco Trend Maps, the release area would be classified at a site ranking of **Zero** with a depth to groundwater > 100'.

Soil Assessment and Analytical Results

Initial soil samples were taken on 10-26-2015 with sample locations noted on the attached Site Diagram. Samples indicated TPH and BTEX were within RRALs in all samples except for the surface sample taken at S2. Below is a summary of the attached analytical results:

S1	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	216	216	224
S2	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 50.0	12400	12400	< 16.0
1'	< 0.300	< 10.0	37.2	37.2	< 16.0
2'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
3'	< 0.300	< 10.0	69.1	69.1	< 16.0
S3	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 50.0	4550	4550	< 16.0
1'	< 0.300	< 10.0	83.5	83.5	< 16.0
2'	< 0.300	< 10.0	16.8	16.8	< 16.0
S4	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	95.9	95.9	< 16.0
1'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
2'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
S5	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	34.3	34.3	< 16.0
1'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0

Work Plan

COG Operating LLC proposes that the impacted area of the pasture be disced and treated with 2 applications of Microblaze in addition to the initial treatment applied immediately after the release occurred. Additional treatments will be administered in January 2016 and February 2016. The impacted area will be disced after the first treatment. Following the final treatment in February, soil samples will be taken from the surface at each of the initial sampling point locations as noted in the attached site diagram.

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) 689-3100.

Sincerely,



Dakota Neel
Environmental Coordinator

Enclosure(s): (1) Site Diagram
(2) Analytical Results
(3) C-141 Initial (Copy)

August 11, 2015

Flying Squirrel Federal #1H Battery

API #30-015-42608

32 7187244, -103 9017334

Released: 20 bbls oil, 8 bbls PW

Recovered: 3 bbls oil, 3 bbls PW

Legend
Release

Site Ranking: 0

Depth to GW per SEO: 250 ft

S1	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	216	216	224
S2	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 50.0	12400	12400	< 16.0
1'	< 0.300	< 10.0	37.2	37.2	< 16.0
2'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
3'	< 0.300	< 10.0	69.1	69.1	< 16.0
S3	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 50.0	4550	4550	< 16.0
1'	< 0.300	< 10.0	83.5	83.5	< 16.0
2'	< 0.300	< 10.0	16.8	16.8	< 16.0
S4	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	95.9	95.9	< 16.0
1'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
2'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0
S5	BTEX	GRO	DRO	TPH	Cl-
Surface	< 0.300	< 10.0	34.3	34.3	< 16.0
1'	< 0.300	< 10.0	< 10.0	< 10.0	< 16.0

Bold values exceed RRAIs per NMOCD Guidelines (1993)

Google earth

300 ft

CONCHO

November 04, 2015

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: FLYING SQUIRREL FED #1 H TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/28/15 11:30.

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/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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 10/28/2015
 Reported: 11/04/2015
 Project Name: FLYING SQUIRREL FED #1 H TANK BAT
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/26/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Judy Garcia

Sample ID: S 1 - SURFACE (H502820-01)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 73 6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	10/30/2015	ND	464	116	400	10.9	

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	10/29/2015	ND	212	106	200	0.534	
DRO >C10-C28	216	10.0	10/29/2015	ND	219	110	200	0.285	

Surrogate: 1-Chlorooctane 98.7 % 47 2-157

Surrogate: 1-Chlorooctadecane 116 % 52 1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 2 - SURFACE (H502820-02)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (P/E) 111 % 73.6-140

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	10/30/2015	ND	464	116	400	10.9	

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	<50.0	50.0	10/29/2015	ND	212	106	200	0.534		
DRO >C10-C28	12400	50.0	10/29/2015	ND	219	110	200	0.285		

Surrogate: 1-Chlorooctane 133 % 47.2-157

Surrogate: 1-Chlorooctadecane 311 % 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
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 2 - 1' (H502820-03)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 106 % 73.6-140

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	10/30/2015	ND	464	116	400	10.9	

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	10/29/2015	ND	212	106	200	0.534	
DRO >C10-C28	37.2	10.0	10/29/2015	ND	219	110	200	0.285	

Surrogate: 1-Chlorooctane 106 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 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
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 2 - 3' (H502820-04)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 106 % 73 6-140

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	10/30/2015	ND	464	116	400	10.9	

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	69.1	10.0	10/30/2015	ND	219	110	200	0.285	

Surrogate: 1-Chlorooctane 102 % 47 2-157

Surrogate: 1-Chlorooctadecane 112 % 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
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 3 - SURFACE (H502820-05)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate 4-Bromofluorobenzene (PIC) 106 % 73.6-140

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	10/30/2015	ND	464	116	400	10.9	

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	4550	50.0	10/30/2015	ND	219	110	200	0.285	

Surrogate 1-Chlorooctane 103 % 47.2-157

Surrogate 1-Chlorooctadecane 194 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 10/28/2015
 Reported: 11/04/2015
 Project Name: FLYING SQUIRREL FED #1 H TANK BAT
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/26/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Judy Garcia

Sample ID: S 3 - 1' (H502820-06)

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	11/02/2015	ND	1.96	98.0	2.00	0.345		
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207		
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19		
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36		
Total BTEX	<0.300	0.300	11/02/2015	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 106 % 73 6-140

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	10/30/2015	ND	464	116	400	10.9		

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	10/30/2015	ND	212	106	200	0.534		
DRO >C10-C28	83.5	10.0	10/30/2015	ND	219	110	200	0.285		

Surrogate: 1-Chlorooctane 105 % 47 2-157

Surrogate: 1-Chlorooctadecane 119 % 52 1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 3 - 2' (H502820-07)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate 4-Bromofluorobenzene (PIE) 105 % 73.6-140

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	10/30/2015	ND	432	108	400	7.69	

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	16.8	10.0	10/30/2015	ND	219	110	200	0.285	

Surrogate 1-Chlorooctane 97.2 % 47.2-157

Surrogate 1-Chlorooctadecane 108 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 4 - SURFACE (H502820-08)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 73.6-140

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	10/30/2015	ND	432	108	400	7.69	

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	95.9	10.0	10/30/2015	ND	219	110	200	0.285	

Surrogate: 1-Chlorooctane 103 % 47.2-157

Surrogate: 1-Chlorooctadecane 117 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 10/28/2015
 Reported: 11/04/2015
 Project Name: FLYING SQUIRREL FED #1 H TANK BAT
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/26/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Judy Garcia

Sample ID: S 4 - 1' (H502820-09)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 73.6-140

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	10/30/2015	ND	432	108	400	7.69	

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	<10.0	10.0	10/30/2015	ND	219	110	200	0.285	


Surrogate: 1-Chlorooctane 104 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 4 - 2' (H502820-10)

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	11/02/2015	ND	1.96	98.0	2.00	0.345	
Toluene*	<0.050	0.050	11/02/2015	ND	2.16	108	2.00	0.207	
Ethylbenzene*	<0.050	0.050	11/02/2015	ND	1.96	98.1	2.00	1.19	
Total Xylenes*	<0.150	0.150	11/02/2015	ND	6.23	104	6.00	1.36	
Total BTEX	<0.300	0.300	11/02/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 73.6-140

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	10/30/2015	ND	432	108	400	7.69		

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	10/30/2015	ND	212	106	200	0.534	
DRO >C10-C28	<10.0	10.0	10/30/2015	ND	219	110	200	0.285	

Surrogate: 1-Chlorooctane 99.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 111 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S 5 - SURFACE (H502820-11)

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	11/03/2015	ND	1.92	95.9	2.00	0.538	
Toluene*	<0.050	0.050	11/03/2015	ND	2.12	106	2.00	0.745	
Ethylbenzene*	<0.050	0.050	11/03/2015	ND	1.93	96.7	2.00	0.372	
Total Xylenes*	<0.150	0.150	11/03/2015	ND	6.13	102	6.00	0.140	
Total BTEX	<0.300	0.300	11/03/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 106 % 73.6-140

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	10/30/2015	ND	432	108	400	7.69	

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	10/30/2015	ND	210	105	200	1.78	
DRO >C10-C28	34.3	10.0	10/30/2015	ND	218	109	200	1.40	

Surrogate: 1-Chlorooctane 105 % 35-147

Surrogate: 1-Chlorooctadecane 116 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 COG OPERATING
 DAKOTA NEEL
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

 Received: 10/28/2015
 Reported: 11/04/2015
 Project Name: FLYING SQUIRREL FED #1 H TANK BAT
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/26/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Judy Garcia

Sample ID: S 5 - 1' (H502820-12)

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	11/03/2015	ND	1.92	95.9	2.00	0.538		
Toluene*	<0.050	0.050	11/03/2015	ND	2.12	106	2.00	0.745		
Ethylbenzene*	<0.050	0.050	11/03/2015	ND	1.93	96.7	2.00	0.372		
Total Xylenes*	<0.150	0.150	11/03/2015	ND	6.13	102	6.00	0.140		
Total BTEX	<0.300	0.300	11/03/2015	ND						

Surrogate 4-Bromofluorobenzene (PIC) 105 % 73 6-140

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	10/30/2015	ND	432	108	400	7.69		

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	10/30/2015	ND	210	105	200	1.78		
DRO >C10-C28	<10.0	10.0	10/30/2015	ND	218	109	200	1.40		

Surrogate 1-Chlorooctane 102 % 35-147

Surrogate 1-Chlorooctadecane 111 % 28-171

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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.
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



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC		P.O. #:		BILL TO										ANALYSIS REQUEST																													
Project Manager: Dakota Neel		Company: COG Operating LLC																																									
Address: 2208 West Main		Attn: Robert McNeill																																									
City: Artesia		Address: 800 W Illinois																																									
Phone #: (575) 748-6930		City: Midland																																									
Fax #: (575) 748-6930		State: TX Zip: 79701																																									
Project #:		State: NM Zip: 88210																																									
Project Name: Flying Squirrel Fed #1 H Tank Battery		Phone #: (432) 221-0388																																									
Project Location:		Fax #:																																									
Sampler Name: Dakota Neel		PRESERV																																									
FOR LAB USE ONLY		SAMPLING																																									
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER		ACID/BASE		ICE / COOL		OTHER		DATE		TIME		BTX		TPH		Chloride											
S1-Surface																								10-26-15				x		x		x											
S2-Surface																								10-26-15				x		x		x											
S2-1'																								10-26-15				x		x		x											
S2-3'																								10-26-15				x		x		x											
S3-Surface																								10-26-15				x		x		x											
S3-1'																								10-26-15				x		x		x											
S3-2'																								10-26-15				x		x		x											
Relinquished By: [Signature]		Date: 10-26-15		Received By: [Signature]		Date: 11-30		Time: 11:30		Sample Condition: Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: [Signature]		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: dhesel2@concho.com acarrasco@concho.com																					
Delivered By: (Circle One)		Sampler - UPS - Bus - Other: #54		3.0°C		Sample Condition: Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: [Signature]		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: dhesel2@concho.com acarrasco@concho.com																									



(575) 393-2326 FAX (575) 393-2476
COG Operating LLC

FORM 600 N-2-V

* Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

November 04, 2015

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: FLYING SQUIRREL FED #1 H TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/28/15 11:30.

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/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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

COG OPERATING
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/28/2015	Sampling Date:	10/26/2015
Reported:	11/04/2015	Sampling Type:	Soil
Project Name:	FLYING SQUIRREL FED #1 H TANK BAT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	NOT GIVEN		

Sample ID: S2-2' (H502832-01)

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	11/04/2015	ND	2.08	104	2.00	1.80	
Toluene*	<0.050	0.050	11/04/2015	ND	2.31	116	2.00	2.52	
Ethylbenzene*	<0.050	0.050	11/04/2015	ND	2.13	107	2.00	2.84	
Total Xylenes*	<0.150	0.150	11/04/2015	ND	6.80	113	6.00	2.91	
Total BTEX	<0.300	0.300	11/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 73 6-140

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	10/30/2015	ND	464	116	400	10.9	

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	11/02/2015	ND	208	104	200	1.44	
DRO >C10-C28	<10.0	10.0	11/02/2015	ND	223	112	200	1.44	

Surrogate: 1-Chlorooctane 95.4 % 35-147

Surrogate: 1-Chlorooctadecane 104 % 28-171

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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



Page 4 of 4

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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: Flying Squirrel Federal #1H	Facility Type: Battery

Surface Owner: Federal	Mineral Owner:	API No. 30-015-42608
------------------------	----------------	----------------------

LOCATION OF RELEASE

Unit Letter I	Section 30	Township 18S	Range 31E	Feet from the 2000'	North/South Line South	Feet from the 450'	East/West Line East	County Eddy
------------------	---------------	-----------------	--------------	------------------------	---------------------------	-----------------------	------------------------	----------------

Latitude 32.7167244 Longitude -103.9017334

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 20 bbls Oil ; 8 bbls PW	Volume Recovered: 3 bbls Oil ; 3 bbls PW
Source of Release: Gasket Failure	Date and Hour of Occurrence: 8/11/2015 6:30 pm	Date and Hour of Discovery: 8/11/2015 6:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Kellie Jones - NMOCD	
By Whom? Amanda Trujillo	Date and Hour: Thu 8/13/2015 5:56 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 by a gasket failure on FWKO. A vacuum truck was dispatched to recover all standing fluid. Crews with soapy water and Microblaze were also dispatched to treat the area.

Describe Area Affected and Cleanup Action Taken.*

This release caused a spray that impacted the nearby 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: 8/25/2015 Phone: 575-748-6940		

* Attach Additional Sheets If Necessary