

July 15, 2016

Oil Conservation Division
District 2 – Artesia
811 S. First St.
Artesia, NM 88210Re: Running Buffalo 1 Federal Com #1H
30-015-41538
Sec. 1, T21S-R28E
Eddy County, NM

Mr. Bratcher/Ms. Price,

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 May 11, 2016 in which 5 bbls of oil was released with 0 bbls recovered.

Background

This release was caused when the dump valve remained closed, causing fluid to go to the flare. The result was a hydrocarbon spray over the vegetation in the pasture. The impacted area measured approximately 0.32 acres. An initial application of Microblaze was applied to the affected area.

Groundwater and Soil Assessment

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Zero due to the depth of groundwater at approximately 125'.

Analytical Results

Initial soil samples were taken on 6-29-2016. Samples indicated TPH in sample area S1 are greater than RRALs for site ranking zero. (see attached site diagram)

Site Ranking: Zero**Depth to GW per Trend Map: 125'**

S1	DRO	GRO	TPH	BTEX
Sf	29700	155	29855	3.07
1'	2370	63.9	2433.9	1.58
S2	DRO	GRO	TPH	BTEX
Sf	148	< 10.0	148	<0.300
6"	19.7	< 10.0	19.7	<0.300
S3	DRO	GRO	TPH	BTEX
Sf	<10.0	<10.0	<10.0	<0.300

CORPORATE ADDRESSOne Concho Center | 600 West Illinois Avenue | Midland, Texas 79701
P 432.683.7443 | F 432.683.7441**CARLSBAD OFFICE**1401 Commerce Drive | Carlsbad, New Mexico 88220
P 575.689.3100 | F 575.941.2081

Work Plan

COG Operating LLC proposes that the impacted area of the pasture be disked 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 July 2016 and August 2016. The impacted area will be disked after the first treatment. Following the final treatment in August, soil samples will be taken from the surface at S1 sampling point 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 (505) 350-1336

Sincerely,



Amanda Trujillo Davis
Sr. Environmental Coordinator

Enclosed

- (1) Site Diagram and Summary Table
- (2) Laboratory Analysis



Running Buffalo 1 Federal #1H

July 15, 2016

Section 1 T21S-R28E

Released: 5 bbls oil
Recovered: 0 bbls
32.5074463 - 104.03508

Legend

-  Area of Impact (AOI)
-  Sample Point

Site Ranking: Zero

Depth to GW per Trend Map: 125'

S1	DRO	GRO	TPH	BTEX
Sf	29700	155	29855	3.07
1'	2370	63.9	2433.9	1.58
S2	DRO	GRO	TPH	BTEX
Sf	148	<10.0	148	<0.300
6"	19.7	<10.0	19.7	<0.300
S3	DRO	GRO	TPH	BTEX
Sf	<10.0	<10.0	<10.0	<0.300

RUNNING BUFFALO 1 FEDERAL COM1H

Google earth

200 ft



July 13, 2016

LUPE CARRASCO
COG Operating, LLC
500 W. ILLINOIS
Midland, TX 79701

RE: RUNNING BUFFALO 1 FEDERAL #1H

Enclosed are the results of analyses for samples received by the laboratory on 07/06/16 10:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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, LLC
LUPE CARRASCO
500 W. ILLINOIS
Midland TX, 79701
Fax To: None

Received: 07/06/2016
Reported: 07/13/2016
Project Name: RUNNING BUFFALO 1 FEDERAL #1H
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 06/29/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S1-SURFACE (H601516-01)

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	07/11/2016	ND	1.99	99.5	2.00	0.129	
Toluene*	0.063	0.050	07/11/2016	ND	2.04	102	2.00	0.862	
Ethylbenzene*	0.394	0.050	07/11/2016	ND	1.96	98.2	2.00	0.914	
Total Xylenes*	2.61	0.150	07/11/2016	ND	5.93	98.8	6.00	0.0424	
Total BTEX	3.07	0.300	07/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 112 % 73.6-140

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	155	50.0	07/09/2016	ND	184	91.9	200	4.98	
DRO >C10-C28	29700	50.0	07/09/2016	ND	201	101	200	7.47	

Surrogate: 1-Chlorooctane 125 % 35-147

Surrogate: 1-Chlorooctadecane 1480 % 28-171

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, LLC
 LUPE CARRASCO
 500 W. ILLINOIS
 Midland TX, 79701
 Fax To: None

 Received: 07/06/2016
 Reported: 07/13/2016
 Project Name: RUNNING BUFFALO 1 FEDERAL #1H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/29/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S1-1' (H601516-02)

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	07/11/2016	ND	1.99	99.5	2.00	0.129	
Toluene*	<0.050	0.050	07/11/2016	ND	2.04	102	2.00	0.862	
Ethylbenzene*	0.206	0.050	07/11/2016	ND	1.96	98.2	2.00	0.914	
Total Xylenes*	1.38	0.150	07/11/2016	ND	5.93	98.8	6.00	0.0424	
Total BTEX	1.58	0.300	07/11/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 137 % 73 6-140

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	63.9	50.0	07/09/2016	ND	184	91.9	200	4.98	
DRO >C10-C28	2370	50.0	07/09/2016	ND	201	101	200	7.47	

Surrogate: 1-Chlorooctane 77.8 % 35-147

Surrogate: 1-Chlorooctadecane 100 % 28-171

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and their'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, LLC
LUPE CARRASCO
500 W. ILLINOIS
Midland TX, 79701
Fax To: None

Received:	07/06/2016	Sampling Date:	06/29/2016
Reported:	07/13/2016	Sampling Type:	Soil
Project Name:	RUNNING BUFFALO 1 FEDERAL #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S2-SURFACE (H601516-03)

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	07/08/2016	ND	1.99	99.5	2.00	0.129		
Toluene*	<0.050	0.050	07/08/2016	ND	2.04	102	2.00	0.862		
Ethylbenzene*	<0.050	0.050	07/08/2016	ND	1.96	98.2	2.00	0.914		
Total Xylenes*	<0.150	0.150	07/08/2016	ND	5.93	98.8	6.00	0.0424		
Total BTEX	<0.300	0.300	07/08/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73 6-140

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	07/09/2016	ND	184	91.9	200	4.98			
DRO >C10-C28	148	10.0	07/09/2016	ND	201	101	200	7.47			

Surrogate: 1-Chlorooctane 77.0 % 35-147

Surrogate: 1-Chlorooctadecane 89.1 % 28-171

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, LLC
 LUPE CARRASCO
 500 W. ILLINOIS
 Midland TX, 79701
 Fax To: None

 Received: 07/06/2016
 Reported: 07/13/2016
 Project Name: RUNNING BUFFALO 1 FEDERAL #1H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/29/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S2-6" (H601516-04)

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	07/08/2016	ND	1.99	99.5	2.00	0.129		
Toluene*	<0.050	0.050	07/08/2016	ND	2.04	102	2.00	0.862		
Ethylbenzene*	<0.050	0.050	07/08/2016	ND	1.96	98.2	2.00	0.914		
Total Xylenes*	<0.150	0.150	07/08/2016	ND	5.93	98.8	6.00	0.0424		
Total BTEX	<0.300	0.300	07/08/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 73 6-140

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	07/09/2016	ND	184	91.9	200	4.98			
DRO >C10-C28	19.7	10.0	07/09/2016	ND	201	101	200	7.47			

Surrogate: 1-Chlorooctane 63.3 % 35-147

Surrogate: 1-Chlorooctadecane 70.0 % 28-171

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, LLC
 LUPE CARRASCO
 500 W. ILLINOIS
 Midland TX, 79701
 Fax To: None

 Received: 07/06/2016
 Reported: 07/13/2016
 Project Name: RUNNING BUFFALO 1 FEDERAL #1H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/29/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S3-SURFACE (H601516-05)

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	07/08/2016	ND	1.99	99.5	2.00	0.129		
Toluene*	<0.050	0.050	07/08/2016	ND	2.04	102	2.00	0.862		
Ethylbenzene*	<0.050	0.050	07/08/2016	ND	1.96	98.2	2.00	0.914		
Total Xylenes*	<0.150	0.150	07/08/2016	ND	5.93	98.8	6.00	0.0424		
Total BTEX	<0.300	0.300	07/08/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 99.8 % 73 6-140

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	07/09/2016	ND	184	91.9	200	4.98		
DRO >C10-C28	<10.0	10.0	07/09/2016	ND	201	101	200	7.47		

Surrogate: 1-Chlorooctane 74.9 % 35-147

Surrogate: 1-Chlorooctadecane 84.1 % 28-171

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC

Project Manager: Lupe Carrasco

Address: 2208 West Main

City: Artesia

Phone #: (575) 748-6940

Project #: Project Owner:

Project Name: Running Buffalo 1 Federal #1H

Project Location:

Sampler Name: Lupe Carrasco

FOR LAB USE ONLY

Lab I.D. Sample I.D.

HOOKS
-1 S1-SURFACE
-2 S1-1'
-3 S2-SURFACE
-4 S2-6"
-5 S3-SURFACE

(G) RAB OR (C) OMP

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE

ICE / COOL

OTHER :

DATE

TIME

BTEX

TPH

Chloride

BILL TO

P.O. #:

Company: COG Operating LLC

Attn: Robert McNeill

Address: 600 W Illinois

City: Midland

State: TX Zip: 79701

Phone #: (432) 221-0388

Fax #:

ANALYSIS REQUEST

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 the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits sustained by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.

Relinquished By:

Date: 10/30/16

Received By: Lupe Carrasco

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS: gpcarrasco@concho.com

atruillo@concho.com

Relinquished By:

Date:

Received By:

Time:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

FORM-006 R 2.0

Sample Condition

CHECKED BY:

Cool Intact

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

Yes ☒ No ☐

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