

April 21, 2021

Oil Conservation Division, District 1 1625 N. French Dr. Hobbs, NM

Re: Work Plan

Dodd Federal Unit #980H (3/23/19)

RP#: 2RP-5334

Incident # NAB1909540096 GPS: 32.85542, -104.06603

Unit Letter C, Section 10, Township 17 South, Range 29 East

Eddy County, New Mexico

To Whom It May Concern,

COG Operating, LLC (COG) is pleased to submit the following work plan in response to a release that occurred at the Dodd Federal Unit #980H located in Unit Letter C, Section 10, Township 17 South and Range 29 East in Lea County, New Mexico.

BACKGROUND

The release was discovered on March 23, 2019 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The release was caused by a dump on the FWKO loosing pressure, filling the vessel and sending fluid up to the flare. Approximately 1 barrels of oil and 5 barrels of produced water were released and recovered 0.5 barrels of crude oil and 3 barrels of water. The initial C-141 is shown in Appendix A. As discussed, the Dodd facility is now operated by Spur Energy Partners LLC.

GROUNDWATER AND REGULATORY

According to the New Mexico Office of the State Engineer (NMOSE), a water well is in Section 22, with groundwater reported depth of 76' below surface (2012). The water well is located approximately 2.5 miles south of the site. The water well information is shown in Appendix B.

On December 7, 2020, COG installed a Depth to Water (DTW) borehole to a depth of 55' below surface. The borehole was left open for 72 hours prior to checking for presence of groundwater. No shallow groundwater was encountered and the borehole was plugged by the licensed driller.

A risk based evaluation and site determinations were perform in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production facilities in New Mexico (effective August 14, 2018). According to the site characterization evaluation, no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. However, the area is in a high Karst area.

The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
High Karst	>50 feet

Delineation and Closure Criteria:

Remedial Action Levels (RALs)				
Chlorides	600 mg/kg			
TPH (GRO and DRO and MRO)	100 mg/kg			
TPH (GRO and DRO)	-			
Benzene	10 mg/kg			
Total BTEX	50 mg/kg			

INITIAL SAMPING

After excavating the impacted area, a total of four (4) composite samples were collected from the area in September 24, 2019. The sample locations are shown in Figure 1. Referring to Table 1, all the samples were below the Table 1 Closure Criteria concentrations for TPH and BTEX. However, the areas of B-1 and B-4 exceeded the closure criteria concentrations for chlorides at 2.0' below surface, with chloride concentrations of 1,650 mg/kg and 2,800 mg/kg, respectively. These areas were not vertically defined. The areas of B-2 and B-3 were all below the Table 1 Closure Criteria concentrations for chlorides.

COG submitted a work plan to excavate the impacted areas, dated May 18, 2020. COG had proposed excavation of the impacted soil in the areas of B-1 and B-4. However, if deeper impact was encountered, a liner variance was requested for the impacted area of B-1 and B-4 due to safety concerns. The NMOCD denied the Variance request to install the liner.

ADDITIONAL ASSESSMENT

On December 7, 2020, COG installed a borehole (BH-1) between B-1 and B-4 to define the extents of the chloride impact. The borehole location is shown in Figure 2. Referring to Table 1, the chlorides were vertically defined at 45' below surface. Based on the results, it appears that the deeper impact may not be related to the flare release incident and may be historical or other possible sources near the area. The impacted area measures approximately 8'x 30' and appears be limited and confined inside the flare firewalls.

In addition, a Depth to Water (DTW) borehole was installed to a depth of 55' below surface. The borehole was left open for 72 hours prior to checking for presence of groundwater. No shallow groundwater was encountered and the borehole was plugged by the licensed driller. According to New Mexico Office of the State Engineer (NMOSE), a water well is in Section 22, with groundwater depth of 76' below surface. The water well is located approximately 2.5 mile south of the site. The surface elevation at the water well is approximately 3550' and 3595' at the Dodd location. Based on relative elevation, the depth to water at the site is estimated to be around 120' below surface.

DEFERRAL REPORT SUBMITAL

Based on the findings, COG submitted the deferral report to the NMOCD for approval, dated December 22, 2020. On March 11, 2021, the NMOCD denied the deferment Report. COG contacted NMOCD to discuss the denial and possible historical impact from a plugged location east of the flare. As shown on Figure 3 (2016 Aerial), a plugged well is located east of the flare.

PROPOSED WORK PLAN

Based on our conversation, the NMOCD requested COG to submit a work plan to continue the assessment at the site to define the horizontal extents of the impact around the flare. The proposed work plan is shown below.

- Boreholes will be installed in the area north, south, west and east of the flare to define the extents of the impacted soil. If needed, additional boreholes will be installed to define the extents. The proposed boreholes are shown in the attached Figure 2.
- According to published data and relative elevation, the groundwater at the site appears to be greater than 100 feet below surface. COG will install a deeper borehole to a depth of 105' below surface to establish the Depth to Water (DTW) for the area.

SITE RECLAMATION AND RESTORATION

• All fluids remained on the pad and no reclamation at the site is required.

REMEDIATION PLAN

As discussed, the Dodd facility is now operated by Spur Energy Partners LLC. Once the proposed activities are completed, COG will prepare a remediation plan for the site.

Should you have any questions or concerns on the closure report, please do not hesitate to contact me.

Sincerely,

ConocoPhillips

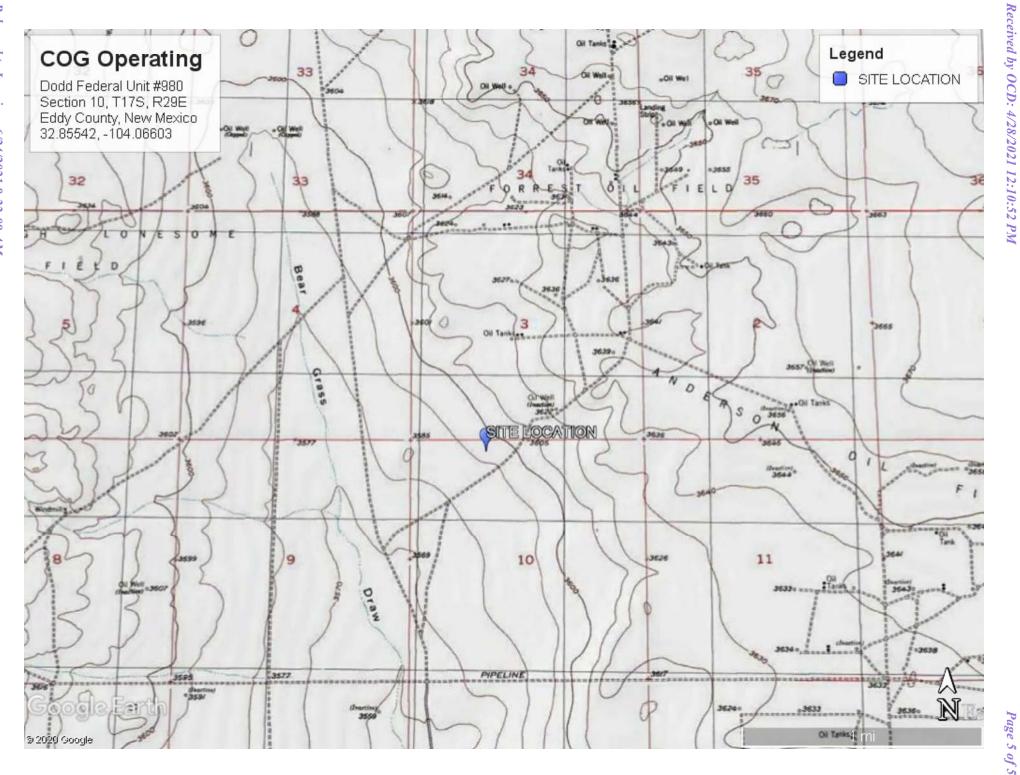
Ike Tavarez, P. G.

Supervisor, Permian Environmental Operations

ike.tavarez@conocophillips.com

CC:

Figures









Tables

Table 1
COG Operating LLC
Dodd Federal Unit #980H
Eddy County, New Mexico

		Sample Depth	Soil	Status		TPH (mg/kg)			Benzene		
Sample ID	Sample Date	(ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
NMOCD Rem	ediation Action Li	imits (mg/kg)	•		-	-	-	100	10	50	600
BH-1	12/7/2020	1	X		-	-	-	-	-	-	669
BH-1	12/7/2020	3	X		-	-	-	-	-	-	539
BH-1	12/7/2020	5	X		-	-	-	-	-	-	1500
BH-1	12/7/2020	7	X		-	-	-	-	-	-	5490
BH-1	12/7/2020	10	X		•	-	•	-	-	-	4100
BH-1	12/7/2020	15	X		•	-	•	-	-	-	7670
BH-1	12/7/2020	20	X		•	-	•	-	-	-	6800
BH-1	12/7/2020	25	X		•	-	-	-	-	-	4730
BH-1	12/7/2020	30	X		-	-	-	-	-	-	5030
BH-1	12/7/2020	35	X		•	-	-	-	-	-	2630
BH-1	12/7/2020	40	X		•	-	•	-	-	-	798
BH-1	12/7/2020	45	X		•	-	-	-	-	-	40.7
Bottom -1	9/24/2019	2	X		<10.0	<10.0	<10.0	<10.0	< 0.05	<0.05	1650
Bottom -2	9/24/2019	1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	496
Bottom -3	9/24/2019	1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	176
Bottom -4	9/24/2019	2	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	2800
North	9/24/2019	0-1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	480
South	9/24/2019	0-1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	320
East	9/24/2019	0-1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	240
West	9/24/2019	0-1	X		<10.0	<10.0	<10.0	<10.0	< 0.05	< 0.05	192

(-) Not Analyzed

Appendix A

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 Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible	Responsible Party OG			OGRID	GRID			
Contact Name			Contact To	Contact Telephone				
Contact email			Incident #	(assigned by OCD	9)			
Contact mail	ing address			1				
			Location	of Release So	ource			
Latitude				Longitude				
			(NAD 83 in de	cimal degrees to 5 decir	nal places)			
Site Name				Site Type	Site Type			
Date Release	Discovered			API# (if app	plicable)			
Unit Letter	Section	Township	Range	Cour	nty	7		
Crude Oi		l(s) Released (Select al Volume Release	ll that apply and attach	d Volume of l		e volumes provided below) overed (bbls)		
Produced	Water	Volume Release	ed (bbls)		Volume Recovered (bbls)			
		Is the concentrate produced water	tion of dissolved c >10,000 mg/l?	chloride in the	Yes N	No		
Condensa	nte	Volume Release			Volume Recovered (bbls)			
Natural G	ias	Volume Release	ed (Mcf)		Volume Recovered (Mcf)			
Other (describe) Volume/Weight Released (provide units)			e units)	Volume/Wei	ght Recovered (provide units)			
Cause of Rel	ease							

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Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the respon	nsible party consider this a major release?
19.15.29.7(A) NMAC?		
☐ Yes ☐ No		
If VFS, was immediate no	otice given to the OCD? By whom? To what	nom? When and by what means (phone, email, etc)?
Ti TES, was ininectate in	once given to the OCD. By whom: 10 wi	what means (phone, eman, etc).
	Initial R	esponse
The responsible p	party must undertake the following actions immediated	y unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.	
☐ The impacted area has	s been secured to protect human health and	the environment.
Released materials ha	we been contained via the use of berms or o	likes, absorbent pads, or other containment devices.
	ecoverable materials have been removed an	
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
has begun, please attach a	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred blease attach all information needed for closure evaluation.
regulations all operators are public health or the environm failed to adequately investigations.	required to report and/or file certain release notinent. The acceptance of a C-141 report by the Cate and remediate contamination that pose a three	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name:		Title:
Signature:	Opeant	Date:
		Telephone:
OCD Only		
Received by:		Date:

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Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☐ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data Data table of soil contaminant concentration data Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody	ls.

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Incident ID	
District RP	2RP 5334
Facility ID	
Application ID	

e best of my knowledge and understand that pursuant to OCD rules and offications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In of responsibility for compliance with any other federal, state, or local laws
Title: Senior HSE Supervisor
5/18/20
Telephone: 432 <u>-683-7443</u>
Date:

Appendix B

Water Well Data Average Depth to Groundwater (ft) COG -Dodd Federal Unit #980H

	16 S	outh	28	B East		_,	_	16 Sc	outh	29	East		_		16 Sc	outh	3() East	
6	5	4	3	2	1	1	6	5	4	3	2	1		6	5	4	3	2	1
7	8	9	10	11	12		7	8	9	10	11	12		7	8	9	10	11	12
18	17	16	15	14	13		18	17	16	15		13		18	17	16	15	14	13
19	20	21 61	22	23	24		19 110	20	21	22	dry 23	24		19	20	21	22	23	24
30	29	28	27	26	25		30	29	28	27	26	25		30	29	28	27	26	25
31	32	33	34	35	36		31	32	33	34	35	36		31	32	33	34	35	36
	17 S	outh	28	B East	ı			17 Sc	outh	29) East				17 Sc	outh	3() East	
6	5	4	3	2 28	1		6	5	4	3	2	1		6	5	4	3	2	1
7	8	9	10	11	12		7	8	9	10	11	12		7	8	9	10	11	12
18	17	16	15	14 80	13		18	17	16	15	14	13		18	17	16	15	14	13
19 224	20	21	22 45 79	23	24		19	20	21	22 76 80	23	24		19	20 80	21	22	23	24
30	29	28	27	26	25		30	29 210 208	28	27	26	25		30	29	28	27	26	25
31	32 SITE	33	34	35 258	36		31	32	33	34	35 153	36		31	32	33	34	35	36
	18 S	outh	28	B East		•		18 Sc	outh	20) East				18 Sc	outh	3() East	
6	5	4	3	2 55	1]	6	5	4	3	2	1		6	5	4	3	2	1
7 Site	8 81	9	10	11	12		7	8	9	10 95	11	12		7	8	9	10	11	12
18	17	16	15 <mark>80</mark>	14	13		18	17	16	15	14	13		18	17	16	15	14	13
19	20	21 226	22	23	24		19	20	21	22	23	24 158		19	20	21	22	23 44	24
30 137	29	28	27	26	25		30	29	28	27	26	25		30	29	28	27	26	25
31	32	33	34	35 65	36		31	32	33	34	35	36		31	32	33	34	35	36

⁸⁸ New Mexico State Engineers Well Reports

¹⁰⁵ USGS Well Reports

⁹⁰ Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6) Geology and Groundwater Resources of Eddy County, NM (Report 3)

³⁴ NMOCD - Groundwater Data



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

 POD

 Sub Q Q Q
 Water

 POD Number
 Code
 basin
 County
 64 16 4 Sec
 Tws
 Rng
 X
 Y
 DepthWellDepthWater Column

 RA 11807 POD1
 RA
 ED
 1 2 3 22 178 29E 587360 3631585
 131 76 55

Average Depth to Water:

76 feet

Minimum Depth:

76 feet

Maximum Depth:

76 feet

Record Count: 1

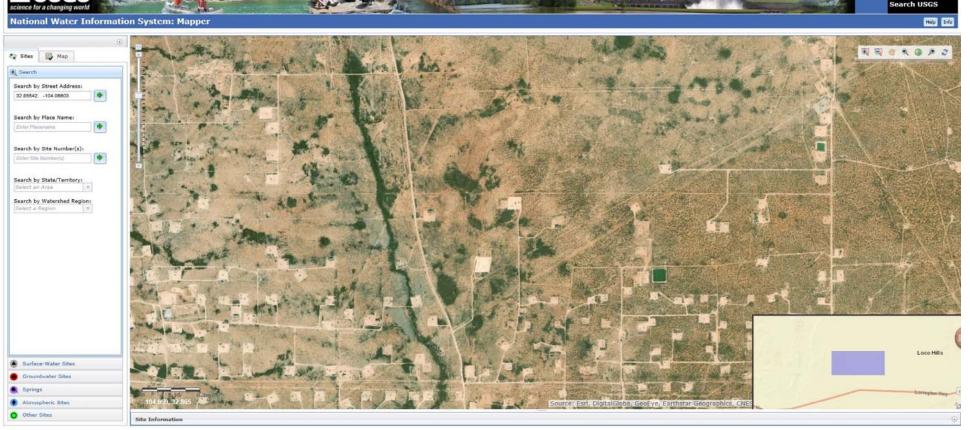
PLSS Search:

Township: 17S Range: 29E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/18/20 2:28 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Received by OCD: 4/28/2021 12:10:52 PM COG Operating

Dodd Federal Unit #980 Section 10, T17S, R29E Eddy County, New Mexico 32.85542, -104.06603

SITE LOCATION

Google Earth

Released to Imaging: 6/24/2021 8:22:09 AM 3 2020 Google



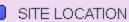
Legend Page 20 of 58











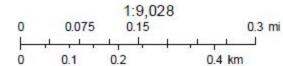


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New Mexico NFHL Data



May 18, 2020















Appendix C



September 26, 2019

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: DODD FEDERAL #980

Enclosed are the results of analyses for samples received by the laboratory on 09/25/19 12:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 accreditated 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.

Celey D. Keene

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:
 09/25/2019
 Sampling Date:
 09/24/2019

 Reported:
 09/26/2019
 Sampling Type:
 Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

4 l. d D. .. DE

Project Location: NOT GIVEN

Sample ID: BTM - 1 (H903295-01)

BTEX 8021B	mg	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	84.1	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1650	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	87.8	% 41-142	•						
Surrogate: 1-Chlorooctadecane	90.1	% 37.6-14	7						

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 whistoever 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



Analytical Results For:

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

Received: 09/25/2019 Sampling Date: 09/24/2019

Reported: 09/26/2019 Sampling Type: Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: BTM - 2 (H903295-02)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	84.7 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	91.0 9	% 41-142	!						
Surrogate: 1-Chlorooctadecane	93.9	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

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

 Received:
 09/25/2019
 Sampling Date:
 09/24/2019

 Reported:
 09/26/2019
 Sampling Type:
 Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: BE

Project Location: NOT GIVEN

ma/ka

Sample ID: BTM - 3 (H903295-03)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	a By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	86.5	% 73.3-12	9						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	94.2	% 41-142	•						
Surrogate: 1-Chlorooctadecane	97.1	% 37.6-14	7						

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Analytical Results For:

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

 Received:
 09/25/2019
 Sampling Date:
 09/24/2019

 Reported:
 09/26/2019
 Sampling Type:
 Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: BF

Project Location: NOT GIVEN

mg/kg

Sample ID: BTM - 4 (H903295-04)

BTEX 8021B

	9/	9	7						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	86.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	90.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	93.8	% 37.6-14	7						

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Analytical Results For:

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

Received: 09/25/2019 Sampling Date: 09/24/2019

Reported: 09/26/2019 Sampling Type: Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: NORTH (H903295-05)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	81.6 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	83.0 %	6 41-142	?						
Surrogate: 1-Chlorooctadecane	85.2 %	6 37.6-14	7						

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Analytical Results For:

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

Received: 09/25/2019 Sampling Date: 09/24/2019 Reported: Soil

09/26/2019 Sampling Type: Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact

Sample Received By: Tamara Oldaker Project Number: NONE GIVEN

Project Location: NOT GIVEN

Sample ID: SOUTH (H903295-06)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	83.9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	68.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	70.6	% 37.6-14	7						

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09/24/2019

Soil

Analytical Results For:

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

Received: 09/25/2019 Sampling Date: Reported: 09/26/2019 Sampling Type:

ma/ka

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: BE

Project Location: NOT GIVEN

Sample ID: EAST (H903295-07)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	a By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	84.7	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	91.2	% 41-142	•						
Surrogate: 1-Chlorooctadecane	93.7	% 37.6-14	7						

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Analytical Results For:

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

Received: 09/25/2019 Sampling Date: 09/24/2019

Reported: 09/26/2019 Sampling Type: Soil

Project Name: DODD FEDERAL #980 Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: NONE GIVEN

Project Location: NOT GIVEN

Sample ID: WEST (H903295-08)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/26/2019	ND	1.70	85.0	2.00	0.372	
Toluene*	<0.050	0.050	09/26/2019	ND	1.71	85.5	2.00	1.89	
Ethylbenzene*	<0.050	0.050	09/26/2019	ND	1.68	84.1	2.00	1.52	
Total Xylenes*	<0.150	0.150	09/26/2019	ND	4.97	82.9	6.00	1.85	
Total BTEX	<0.300	0.300	09/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	84.6 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	09/26/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2019	ND	197	98.5	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/25/2019	ND	196	98.1	200	1.65	
EXT DRO >C28-C36	<10.0	10.0	09/25/2019	ND					
Surrogate: 1-Chlorooctane	94.6 %	6 41-142							
Surrogate: 1-Chlorooctadecane	96.9 %	6 37.6-14	7						

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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

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s. Please fax written changes to 575-393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



	(5/5) 393-2326 FAX (5/5) 393-24/6	/6					
Company Name:	COG Operating LLC	8	BILL 70			ANALYSIS REQUEST	ìT
Project Manager:	Dakota Neel	v	P.O. #:			,	
Address: 2208	2208 West Main		Company: COG Operating LLC	ating LLC		7	
City: Artesia	State: NM	Zi p 88210	Attn: Jennifer Knowlton	owlton			
Phone #:	(575) 746-2010 Fax #:		Address: 600 W Illinois	llinois			
Project #:	Project Owner:	•	City: Midland	C1=			
Project Name:	DODD FEDERAL #980	9	State: TX Zip: 79701	3			
Project Location:			Phone #: (432) 221-0388	<u> </u>			
Sampler Name:	Dakota Neel		Fax #:				
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING	ING			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER: DATE	BTEX	TPH Chloride		
	BTM-1	,	-	X V105;1	*		
2	311-2	\	/	1:35 <	4		
W	Btw-3	1 2	·	140	*		
カ	by with	7		1:45 ×	& K		
3	NORTH	7		1:50 4	*		
3	300 tH	,	(1:55	8		
7	1503	7) (5.00 2	× ×		
8	WEST	()	-	C:05 /	×		
PLEASE NOTE: Liability and I analyses. All claims including service. In no event shall Card	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 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,	ny claim arising whether based in contract of the contract of	t or tort, shall be limited to the amount pa d received by Cardinal within 30 days aft loss of use, or loss of profits incurred by	id by the client for the er completion of the applicab client, its subsidiaries,	ě		
Relinquished By:	Relinquished By: Date: 9.725-19 Received By:	Received By:	Brike	Phone Result: Fax Result: REMARKS:	☐ Yes ☐ No	Add'l Phone #: Add'l Fax #:	27
Relinquished By:	Date: 19	Received By:	Comme		2		
Branchi Olda	W Time: 2:4	Sample Condition	HECKED BY:		Rust		
Sampler - UPS - Bus - Other:		Cool Intact	4				
- non-							

eurofins Environment Testing

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Certificate of Analysis Summary 680980

COG Operating LLC, Artesia, NM

Project Name: Dodd Fed 980

Project Id: Contact:

Project Location:

Sheldon Hitchcock

Eddy County, New Mexico

Date Received in Lab: Mon 12.14.2020 14:12

Report Date: 12.15.2020 11:49

Project Manager: Jessica Kramer

	Lab Id:	680980-00)1	680980-0)2	680980-0)3	680980-0)4	680980-0	05	680980-00)6
Analysis Requested	Field Id:	BH-1 1'		BH-1 3'		BH-1 5'		BH-1 7'		BH-1 10'		BH-1 15'	
Anutysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	12.07.2020 (9:00	12.07.2020 (9:05	12.07.2020 (9:10	12.07.2020 (9:15	12.07.2020	09:20	12.07.2020 0	9:30
Chloride by EPA 300	Extracted:	12.14.2020 1	5:41	12.14.2020	5:41	12.14.2020	5:41	12.14.2020	5:41	12.14.2020	15:41	12.14.2020 1	5:41
	Analyzed:	12.14.2020 23:19		12.14.2020 23:36		12.14.2020 2	23:41	12.14.2020 2	23:47	12.14.2020 23:52		12.15.2020 00:09	
	Units/RL:	mg/kg	mg/kg RL		RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		669	9.90	539	49.8	1500	49.6	5490	49.9	4100	49.8	7670	49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Vramer

eurofins Environment Testing

Page 35 of 58

Certificate of Analysis Summary 680980

COG Operating LLC, Artesia, NM

Project Name: Dodd Fed 980

Project Id: Contact:

Project Location:

Sheldon Hitchcock

Eddy County, New Mexico

Date Received in Lab: Mon 12.14.2020 14:12

Report Date: 12.15.2020 11:49

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	680980-007		680980-008		680980-009		680980-010		680980-011		680980-012	
	Field Id:	BH-1 20'		BH-1 25'		BH-1 30'		BH-1 35'		BH-1 40'		BH-1 45'	
	Depth:												
	Matrix:	SOIL											
	Sampled:	12.07.2020 09:40		12.07.2020 09:50		12.07.2020 10:00		12.07.2020 10:05		12.07.2020 10:10		12.07.2020 10:20	
Chloride by EPA 300	Extracted:	12.14.2020 15:41		12.14.2020 15:41		12.14.2020 15:41		12.14.2020 15:41		12.14.2020 15:41		12.14.2020 15:41	
	Analyzed:	12.15.2020 00:15		12.15.2020 00:20		12.15.2020 00:26		12.15.2020 00:31		12.15.2020 00:37		12.15.2020 00:54	
	Units/RL:	mg/kg	RL										
Chloride		6800	49.7	4730	50.1	5030	50.4	2630	50.1	798	9.94	40.7	9.98

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Vramer



Analytical Report 680980

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Dodd Fed 980

12.15.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)



12.15.2020

Project Manager: Sheldon Hitchcock

COG Operating LLC 2407 Pecos Avenue Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): 680980

Dodd Fed 980

Project Address: Eddy County, New Mexico

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 680980. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 680980 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 680980

COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 1'	S	12.07.2020 09:00		680980-001
BH-1 3'	S	12.07.2020 09:05		680980-002
BH-1 5'	S	12.07.2020 09:10		680980-003
BH-1 7'	S	12.07.2020 09:15		680980-004
BH-1 10'	S	12.07.2020 09:20		680980-005
BH-1 15'	S	12.07.2020 09:30		680980-006
BH-1 20'	S	12.07.2020 09:40		680980-007
BH-1 25'	S	12.07.2020 09:50		680980-008
BH-1 30'	S	12.07.2020 10:00		680980-009
BH-1 35'	S	12.07.2020 10:05		680980-010
BH-1 40'	S	12.07.2020 10:10		680980-011
BH-1 45'	S	12.07.2020 10:20		680980-012

CASE NARRATIVE

eurofins Environment Testing Xenco

Client Name: COG Operating LLC

Project Name: Dodd Fed 980

Project ID: Report Date: 12.15.2020 Work Order Number(s): 680980 Date Received: 12.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-11' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-001 Date Collected: 12.07.2020 09:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	669	9.90	mg/kg	12.14.2020 23:19		1

COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 3' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-002 Date Collected: 12.07.2020 09:05

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	539	49.8	mg/kg	12.14.2020 23:36		5

COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 5' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-003 Date Collected: 12.07.2020 09:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1500	49.6	mg/kg	12.14.2020 23:41		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-17' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-004 Date Collected: 12.07.2020 09:15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5490	49.9	mg/kg	12.14.2020 23:47		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 10' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-005 Date Collected: 12.07.2020 09:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	4100	49.8	mg/kg	12.14.2020 23:52		5	_



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 15' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-006 Date Collected: 12.07.2020 09:30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7670	49.9	mg/kg	12.15.2020 00:09		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 20' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-007 Date Collected: 12.07.2020 09:40

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6800	49.7	mg/kg	12.15.2020 00:15		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 25' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-008 Date Collected: 12.07.2020 09:50

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4730	50.1	mg/kg	12.15.2020 00:20		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 30' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-009 Date Collected: 12.07.2020 10:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5030	50.4	mg/kg	12.15.2020 00:26		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 35' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-010 Date Collected: 12.07.2020 10:05

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2630	50.1	mg/kg	12.15.2020 00:31		5



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 40' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-011 Date Collected: 12.07.2020 10:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	798	9.94	mg/kg	12.15.2020 00:37		1



COG Operating LLC, Artesia, NM

Dodd Fed 980

Sample Id: BH-1 45' Matrix: Soil Date Received:12.14.2020 14:12

Lab Sample Id: 680980-012 Date Collected: 12.07.2020 10:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.14.2020 15:41 % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.7	9.98	mg/kg	12.15.2020 00:54		1



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS Matrix Spike MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

^{**} Surrogate recovered outside laboratory control limit.

MB

680980 **QC Summary**

COG Operating LLC

Dodd Fed 980

Limits

%RPD

Analytical Method: Chloride by EPA 300

Xenco

Seq Number: 3144853

Matrix: Solid

E300P Prep Method:

Date Prep: 12.14.2020

Units

E300P

MB Sample Id: 7717074-1-BLK LCS Sample Id: 7717074-1-BKS LCSD Sample Id: 7717074-1-BSD LCS RPD LCS

Spike LCSD Analysis LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 262 105 264 90-110 20 12.14.2020 23:08 106 1 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: 3144853 Seq Number: Matrix: Soil Date Prep: 12.14.2020

MS Sample Id: 680980-001 S MSD Sample Id: 680980-001 SD Parent Sample Id: 680980-001

Parent Spike MS MS MSD **MSD** Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec Result %Rec Limit Date

20 12.14.2020 23:24 Chloride 669 199 866 99 838 91 90-110 3 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: 3144853 Seq Number: Matrix: Soil Date Prep: 12.14.2020

MS Sample Id: 680980-011 S MSD Sample Id: 680980-011 SD Parent Sample Id: 680980-011

%RPD **RPD Parent** Spike MS MS Units Analysis MSD **MSD** Limits Flag **Parameter** Result Result Limit Date Amount %Rec %Rec Result 12.15.2020 00:43 Chloride 798 200 1010 106 1000 90-110 20 mg/kg 102 1

Page 21 of 23

Final 1.000

Hold

Page 22 of 23

Released to Imaging: 6/24/2021

Work Order #: 680980

Analyst:

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Date/ Time Received: 12.14.2020 02.12.00 PM

Temperature Measuring device used: T_NM_007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6*Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquished/ received?		Yes	
#10 Chain of Custody agrees with sample labels/matrix?		Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated test(s)?		Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headspa	ace?	N/A	

Must be completed for	after-hours deliver	v of samples prior to	placing in the refrigerato
Must be combleted to	aitei-ilouis aelivei	v di sallibles bildi to	Diacilla ili tile rell'iderato

Checklist completed by:	Cloe Clifton	Date: 12.14.2020
Checklist reviewed by:	Jessica Vramer	Date: 12.15.2020

Jessica Kramer

PH Device/Lot#:

Received by OCD: 4/28/2021 12:10:52 PM Form C-141 State of New Mexico Page 5 Oil Conservation Division

	Page 57 of 58
Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.				
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)				
<u>Deferral Requests Only</u> : Each of the following items must be confirmed as part of any request for deferral of remediation.				
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.				
Extents of contamination must be fully delineated.				
Contamination does not cause an imminent risk to human health, the environment, or groundwater.				
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.				
Printed Name: _Ike Tavarez Title: Senior HSE Supervisor				
Signature:				
Signature: Date: 6/24/2021 Date: 6/24/2021				
OCD Only				
Received by: Chad Hensley Date: 06/24/2021				
Signature: Date: 06/24/2021				

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 26039

CONDITIONS

Operator:	OGRID:	
COG OPERATING LLC	229137	
600 W Illinois Ave Midland, TX 79701	Action Number: 26039	
	Action Type: [C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By	Condition	Condition Date
chensley	None	6/24/2021