

[Sheldon L. Hitchcock]
[HSE Coordinator]

April 15, 2019

Bradford Billings Oil Conservation Division 1220 S. St Francis Dr. #3 Santa Fe, NM 87505

Ryan Mann New Mexico State Land Office 2827 N. Dal Paso Suite 117 Hobbs, NM 88240

**Re:** Closure Letter

Man State #002H API #: 30-015-42937 RP#: 2RP-4667

Unit Letter L, Section 32, Township 18 S, Range 28 E

**Eddy County, New Mexico** 

Mr. Billings/Mr. Mann,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Man State #002H. This release occurred on March 17, 2018. Following the release, remediation of the impacted area was conducted in accordance with New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO) guidelines.

#### **BACKGROUND**

The Man State #002H release was located in Unit Letter L, Section 32, Township 18 South and Range 28 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.702988874 North and -104.20547669 West.

On March 17, 2018, a sight glass failed resulting in the release of approximately twelve (12) barrels (bbls) of oil and six (6) bbls of produced water.

Remediation activities were conducted utilizing field data and laboratory analysis to guide the extent of the excavation. The analytical results from the confirmation soil sampling activities are summarized in the table below. A site diagram of the excavated area is presented in Appendix I.

#### GROUNDWATER AND SITE RANKING

According New Mexico Office of the State Engineer groundwater in the project vicinity is approximately one-hundred and forty-five (145) feet below ground surface (BGS) (Appendix II). No water well or surface water was observed within one-thousand (1,000) feet of the release site. Therefore the site ranking for this release is zero (0) based on the following:

Depth to groundwater >100-feet
Distance to surface water body
Wellhead Protection Area >1000-feet
>1000-feet

#### CONFIRMATION SOIL SAMPLING RESULTS

		Man State #	‡2H		
	1	L-32-18S-2	8E		
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	TPH mg/Kg
T1-2'	5/30/2018	368	<0.050	<0.300	18.1
T2-2.5'	5/30/2018	304	<0.050	<0.300	214
T1/T2	5/30/2018	64	<0.050	<0.300	<10.0
T-3 Surface	5/30/2018	96	<0.050	<0.300	137
T4- Surface	5/30/2018	128	<0.050	<0.300	207
T1-West	5/30/2018	96	<0.050	<0.300	27
T1- North	7/2/2018	160	<0.050	<0.300	<10.0
T1- South	5/30/2018	208	<0.050	<0.300	13
T2- North	5/30/2018	112	<0.050	<0.300	<10.0
T2-East	7/2/2018	160	<0.050	<0.300	<10.0
T2-South	5/30/2018	112	<0.050	<0.300	<10.0

#### REMEDIAL ACTIONS

- The impacted area in the vicinity of sample location T-1 was excavated to a depth of two (2) feet BGS.
- The impacted area in the vicinity of sample location T-2 was excavated to a depth of two and one-half (2.5) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from the bottom and sidewalls of the excavation.
- Upon receipt of acceptable analytical results from the excavation was backfilled with clean "like" material and contoured to match the surrounding location.

#### **CLOSURE REQUEST**

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the New Mexico State Land Office grant closure approval for the Man State #002H incident that occurred on March 17, 2018.

Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,

Sheldon L. Hitchcock HSE Coordinator

Sheldon quitam

slhitchcock@concho.com

#### Enclosed:

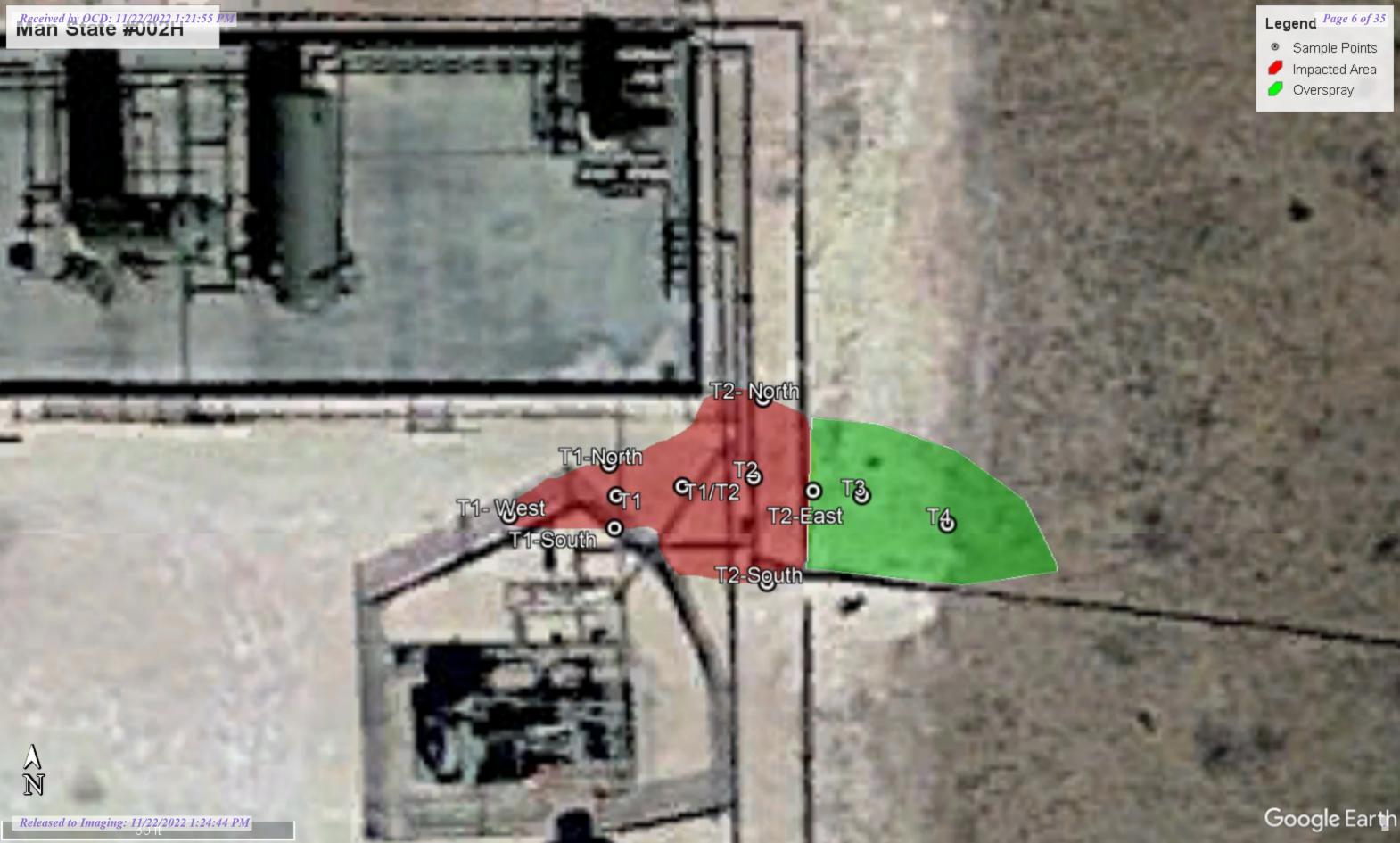
Appendix I: Site Diagram

Appendix II: Groundwater Data Appendix III: Initial C-141 (Copy)

Appendix IV: Final C-141

Appendix V: Analytical Reports and Chain-of-Custody Forms

# APPENDIX I



# APPENDIX II



# 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 C	)						Depth	Depth	Water
POD Number	Code basin	County	64	16 4	Sec	Tws	Rng	Х	Υ	Distance	Well	Water	Column
CP 00478 POD1	CP	ED	1	1 4	1 05	19S	28E	575300	3617036* 🌕	1646	312	145	167
RA 09588	RA	ED		1 2	2 33	18S	28E	576976	3619384* 🌍	2512	300		
CP 00361 POD1	СР	ED	3	1 3	3 09	19S	28E	576094	3615246* 🌍	3604	365	265	100

Average Depth to Water: 205 feet

Minimum Depth: 145 feet

Maximum Depth: 265 feet

**Record Count: 3** 

**Basin/County Search:** 

County: Eddy

**UTMNAD83 Radius Search (in meters):** 

Easting (X): 574612 Northing (Y): 3618532 Radius: 3800

\*UTM location was derived from PLSS - see Help

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.

# APPENDIX III

### I'M OIL COMSERVATION

ARTESIA MISTRIC

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 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**  MAR 19 2018

Form C-141 Revised April 3, 2017

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

**A EGET VEP** to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notific	ation	and Co	rrective A	Actio	n			
NABI	80705	50088				<b>OPERA</b>	ΓOR			Report		Final Report
Name of C	ompany: Co	OG Operatin	g LLC O	GRID# 229137		Contact:	Robert M	IcNeill				•
Address:				and TX 79701		Telephone N		7443				
Facility Na	me: Man	State 2H Ba	attery	***************************************		Facility Typ	e: Battery					
Surface Ow	vner: State	)		Mineral O	wner:	State			API No.	30-015-4	12937	
				LOCA	TIOI	OF REI	LEASE					
Unit Letter L	Section 32	Township 18S	Range 28E	Feet from the 2,310		South Line	Feet from the 190	East	t/West Line West		Count Eddy	•
			Latit	tude 32.702988	874 Lo	ongitude -10	)4.20547669	NAD8	3			
				NAT	URE	OF RELI	EASE					
Type of Rele				111111111111111111111111111111111111111		Volume of			Volume Re			
- CD		Oil and Produ	iced Water	•			l. Oil & 6 bbl. P		Date and H	0 bbl Oil &		
Source of Re		e and Gauge	Cock Valv	e Malfunctioned		1	lour of Occurrer h 17, 2018 6:30a			larch 17, 2		
Was Immedi			COCK VIII	<u> </u>		If YES, To		4171	1		010 010	
			Yes 🛭	No 🛛 Not Re	equired							
By Whom?						Date and H	lour:					
Was a Water	rcourse Reac					If YES, Vo	lume Impacting	the Wa	atercourse.			
		Ц	Yes 🗵	No								
The release of The release of The release of the release of the telease of the release of the re	was due to the a Affected a	and Cleanup /	breaking a Action Tak	and the gauge cock	asture.	A vacuum tru	ck was dispatch	ed to re	move all frees	standing flu	nids. Co	ncho will
I hereby cert regulations a public health should their or the environ	tify that the is all operators or the environment. In a prime operations had not been supported by the control of the control	are required tronment. The lave failed to	iven above o report and acceptant adequately OCD accep	is true and comp nd/or file certain re- ce of a C-141 report investigate and re- stance of a C-141	elease n ort by the emediat	otifications as e NMOCD m e contaminati	nd perform corre arked as "Final on that pose a th	ective a Report' hreat to	ctions for rele does not relie ground water,	ases which eve the ope , surface w	may er rator of ater, hu	ndanger `liability man health
							OIL COI	NSER	VATION	<u>DIVISI</u>	<u> </u>	
Signature:		Dellun()	peant				E Qimad D.		He Ken	iete /, seto		
Printed Nam	ne:	DeAnn Gra	nt			Approved by	Environnen al	Special	ust:/ ^>	7 - 147 C <b>27</b> C		<del></del>
Title:		HSE Admir	nistrative A	Assistant		Approval Da	te: 3/201	12	Expiration I	Date: 人	1/+	
										1		
E-mail Addı	ress:	agrant@co	ncho.com			Conditions o	f Approval:	$\bigcap$	001.0d	Attached	h []	

# APPENDIX IV

<u>District I</u> 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 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	Party			OGRID				
Contact Nam	ie			Contact T	Telephone			
Contact emai	1			Incident #	‡ (assigned by OCL	0)		
Contact mail	ing address			<b>'</b>				
			Location	of Release S	Source			
Latitude				Longitude				
			(NAD 83 in dec	cimal degrees to 5 deci	imal places)			
Site Name				Site Type				
Date Release	Discovered			API# (if ap	pplicable)			
Unit Letter	Section	Township	Range	Cou	nty			
Surface Owner		☐ Federal ☐ Tr	ribal Driveta (	Vama		,		
Surface Owner	. State		ibai 🔲 Fiivate (i	vame.		)		
			Nature and	d Volume of	Release			
	Materia	(s) Released (Select al	I that annly and attach	calculations or specifi	c justification for th	ne volumes provided below)		
Crude Oil		Volume Release		carculations of specifi		overed (bbls)		
Produced	Water	Volume Release	d (bbls)		Volume Rec	overed (bbls)		
		Is the concentrat	hloride in the	Yes 1	No			
□ C - 1	produced water >10,000 mg/l?				Volume Decovered (hhle)			
Condensa		Volume Release			Volume Recovered (bbls)			
Natural G		Volume Release				overed (Mcf)		
Other (de	scribe)	Volume/Weight	Released (provide	e units)	Volume/Wei	ight Recovered (provide units)		
G CD 1								
Cause of Rele	ease							

Received by OCD: 11/22/2022 1:21:55 PM Form C-141 State of New Mexico Page 6 Oil Conservation Division

	Page 13 of 35
Incident ID	
District RP	
Facility ID	
Application ID	

#### Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following it	items must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification to the Corinted Name:	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.  Title:
Signature: Sheldon Juitan	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by: Ashley Maxwell	Date:
Printed Name:	Title:

### APPENDIX V



July 06, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: MAN STATE #2

Enclosed are the results of analyses for samples received by the laboratory on 07/02/18 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> 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: 07/02/2018 Reported: 07/06/2018

Project Name: MAN STATE #2
Project Number: NONE GIVEN
Project Location: COG - EDDY CO NM

Sampling Date: 07/02/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

#### Sample ID: T 1 - NORTH (H801813-01)

DTEV 0021D

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34	
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02	
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09	
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840	
Total BTEX	<0.300	0.300	07/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.8-14	2						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/06/2018	ND	432	108	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	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					
Surrogate: 1-Chlorooctane	79.1	% 41-142	,						
Surrogate: 1-Chlorooctadecane	84.1	% 37.6-14	7						

Analyzed By MC

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. Keine

Celey D. Keene, Lab Director/Quality Manager



07/02/2018

Soil

#### Analytical Results For:

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

Received: 07/02/2018 Sampling Date: Reported: 07/06/2018

Sampling Type: Project Name: MAN STATE #2 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: COG - EDDY CO NM

#### Sample ID: T 2 - EAST (H801813-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2018	ND	1.82	91.2	2.00	1.34	
Toluene*	<0.050	0.050	07/04/2018	ND	1.84	91.8	2.00	2.02	
Ethylbenzene*	<0.050	0.050	07/04/2018	ND	1.80	90.0	2.00	1.09	
Total Xylenes*	<0.150	0.150	07/04/2018	ND	5.57	92.8	6.00	0.840	
Total BTEX	<0.300	0.300	07/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/06/2018	ND	432	108	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	07/04/2018	ND	197	98.3	200	5.35	
DRO >C10-C28*	<10.0	10.0	07/04/2018	ND	210	105	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	07/04/2018	ND					
Surrogate: 1-Chlorooctane	84.0	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	87.2	% 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 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.

Celeg D. Freene

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

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 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 inclured 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

Celey D. Keene, Lab Director/Quality Manager

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1201



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

ТРН	Chloride	ANAL YOUR
Company: COG Operating LLC Attn: Robert McNeill Address: 600 W Illinois City: Midland State: TX Zip: 79701 Phone #: (432) 221-0388 Fax #: PRESERV. SAMPLING	rating LLC SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill SNeill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneill Sneil	rating LLC SNeill SNeill O1  B  Illinois



June 06, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: MAN STATE #2

Enclosed are the results of analyses for samples received by the laboratory on 05/31/18 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> 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)

Wite Sough

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,

Mike Snyder For 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: 05/31/2018
Reported: 06/06/2018
Project Name: MAN STATE #3

Project Name: MAN STATE #2
Project Number: NONE GIVEN
Project Location: COG - EDDY CO NM

ma/ka

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: T1-2' (H801486-01)

DTEV 0021D

BTEX 8021B	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	18.1	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	88.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	83.5	% 37.6-14	7						

Analyzed By MC

Cardinal Laboratories \*=Accredited Analyte

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#### Analytical Results For:

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

Received: 05/31/2018

Reported: 06/06/2018 Project Name: MAN STATE #2 Project Number: NONE GIVEN

Project Location: COG - EDDY CO NM Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Tamara Oldaker Sample Received By:

#### Sample ID: T2 - 2.5' (H801486-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	182	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	32.1	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	83.5	% 41-142							
Surrogate: 1-Chlorooctadecane	88.4	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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#### Analytical Results For:

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

Received: 05/31/2018 Reported: 06/06/2018

Project Name: MAN STATE #2 Project Number: NONE GIVEN

Project Location: COG - EDDY CO NM Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

#### Sample ID: T1/T2 (H801486-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	73.3	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	65.1	% 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: 05/31/2018

Reported: 06/06/2018
Project Name: MAN STATE #2
Project Number: NONE GIVEN

Project Location: COG - EDDY CO NM

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

#### Sample ID: T3 - SURFACE (H801486-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.8-14	12						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	99.0	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	38.8	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	77.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	77.4	% 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: 05/31/2018 Reported:

06/06/2018 MAN STATE #2 NONE GIVEN

Project Location: COG - EDDY CO NM Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

#### Sample ID: T4 - SURFACE (H801486-05)

Project Name:

Project Number:

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.8-14	12						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	179	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	28.2	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	77.5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	80.7	% 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: 05/31/2018 Sampling Date: 05/30/2018

Reported: 06/06/2018 Sampling Type: Soil

Project Name: MAN STATE #2 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: COG - EDDY CO NM

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#### Sample ID: T 1 - WEST (H801486-06)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.8-14.	2						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	26.9	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	74.8	% 41-142							
Surrogate: 1-Chlorooctadecane	70.7	% 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: 05/31/2018 Reported: 06/06/2018

Project Name: MAN STATE #2
Project Number: NONE GIVEN

Project Location: COG - EDDY CO NM

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

#### Sample ID: T 1 - NORTH (H801486-07)

BTEX 8021B	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	22						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/04/2018	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	198	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	27.9	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	83.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	92.8	% 37.6-14	7						

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05/30/2018

#### Analytical Results For:

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

Received: 05/31/2018 Sampling Date:
Reported: 06/06/2018 Sampling Type:

Reported: 06/06/2018 Sampling Type: Soil

Project Name: MAN STATE #2 Sampling Condition: Cool & Intact

Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: COG - EDDY CO NM

#### Sample ID: T 1 - SOUTH (H801486-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	193	96.6	200	4.35	
DRO >C10-C28*	13.0	10.0	06/01/2018	ND	208	104	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	81.7	% 41-142	•						
Surrogate: 1-Chlorooctadecane	77.4	% 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: 05/31/2018

Reported: 06/06/2018
Project Name: MAN STATE #2
Project Number: NONE GIVEN

Project Location: COG - EDDY CO NM

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

#### Sample ID: T 2 - NORTH (H801486-09)

BTEX 8021B	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	< 0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	111	% 69.8-14	22						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/01/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	84.6	% 41-142	?						
Surrogate: 1-Chlorooctadecane	76.4	% 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: 05/31/2018 Reported: 06/06/2018

06/06/2018 MAN STATE #2

Project Name: MAN STATE #2
Project Number: NONE GIVEN
Project Location: COG - EDDY CO NM

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

#### Sample ID: T 2 - EAST (H801486-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	224	10.0	06/01/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	49.2	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	84.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	92.9	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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#### Analytical Results For:

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

Received: 05/31/2018

Reported: 06/06/2018 Project Name: MAN STATE #2 Project Number: NONE GIVEN Project Location:

COG - EDDY CO NM

Sampling Date: 05/30/2018

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

#### Sample ID: T 1 - SOUTH (H801486-11)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2018	ND	2.17	108	2.00	0.751	
Toluene*	<0.050	0.050	06/04/2018	ND	2.16	108	2.00	0.514	
Ethylbenzene*	<0.050	0.050	06/04/2018	ND	2.12	106	2.00	0.363	
Total Xylenes*	<0.150	0.150	06/04/2018	ND	6.24	104	6.00	0.166	
Total BTEX	<0.300	0.300	06/04/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2018	ND	432	108	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	06/01/2018	ND	196	98.0	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/01/2018	ND	211	105	200	1.20	
EXT DRO >C28-C36	<10.0	10.0	06/01/2018	ND					
Surrogate: 1-Chlorooctane	80.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	73.4	% 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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MA Sough

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

Company Maine. COG Operating LLC			BILL TO				ANALYSIS REQUEST	
Project Manager: Dakota Neel		P.O. #:			_	4		
Address: 2208 West Main		Company:		COG Operating LLC				
City: Artesia State: NM	NM Zip 88210	10 Attn:	Robert McNeill	cNeill				
Phone #: (575) 748-6930 Fax #:		Address:	s: 600 W Illinois	Illinois				
Project #: Project	Project Owner:	City:	Midland	ā.				
Project Name: Man State #2		State: TX	TX Zip: 79701	2				
Project Location:		Phone	Phone #: (432) 221-0388	œ				
Sampler Name: Dakota Neel		Fax #:						
FOR LAB USE ONLY	MA	MATRIX PRE	PRESERV. SAMPLING	ING				_
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL	OIL SLUDGE OTHER: ACID/BASE:	OTHER:	TIME	ВТЕХ	ТРН	Chloride	×
/ T1-2'	×		x 5/30/18	3:00 PM	×	×	x	
Z T2-2.5'	1 ×		x 5/30/18	3:00 PM	×	×	×	
J 11/T2			x 5/30/18	3:00 PM	×	×	*	
T3-Surface	×		× 5/30/18	3:00 PM	×	×	*	
S T4-Surface	1 ×		x 5/30/18	3:00 PM	×	×	*	_
C T1-WEST	1 ×		x 5/30/18	3:00 PM	×	×	*	
7 T1-NORTH	×		x 5/30/18	3:00 PM	×	×	*	
T1-SOUTH			x 5/30/18	3:00 PM	×	×	*	
7 T2-NORTH	×		X 5/30/18	3:00 PM	×	×	×	
6 T2-EAST	-1 ×		X 5/30/18	3:00 PM	×	×	*	
and Damages. Cardinal's li					No. of Contract of	100000		

Relinquished By:

Relinquished By:

Date: 5-3/-/8

Received

Fax Result:

Phone Result:

□ Yes

□ No No

Add'l Phone #: Add'l Fax #:

dneel2@concho.com

Received By:

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

Sampler - UPS - Bus - Other:

Delivered By: (Circle One)

Date: Time:

1.20

Sample Condition
Cool Intact
Tes Tes
No No

5470

CHECKED BY: (Initials)

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

Company Name.	COG Operating LLC											Ø	B/LL 70					Þ	ANALYSIS	ΥS	S	IJ		É	REQUEST	-			- [	- ]	
Project Manager:	Dakota Neel								P.O. #:	*	"						7				-1	7	-1	ľ	-18	1	$\dashv$	4			┸
Address: 2208	2208 West Main								Company:	du	an)		COG Operating LLC	ng LLC																	
City: Artesia	State: NM	N.	Zip		88	88210			Attn:	ಣ			Robert McNeill	¥																	
Phone #:	(575) 748-6930 Fax #:								Address:	ire	SS:		600 W Illinois	Ois									_								
Project #:	Project Owner:	••						_	City:				Midland																		
Project Name: N	Man State #2								State: TX	e:	¥	2.	Zip: 79701																	8	
Project Location:								_	ž	ne	#	4	Phone #: (432) 221-0388																		
Sampler Name:	Dakota Neel							_	Fax #:	#																		_			
FOR LAB USE ONLY			4	1	3	MATRIX	×	ŀ	_	〗	S	PRESERV.	SAMPLING	9																	
Lab I.D.	Sample I.D.	OR (C)OMP.			MILK					SE:	DL																				
#801486			# CONTA GROUND	WASTEW	SOIL	OIL		SLUDGE	OTHER:	ACID/BAS	ICE / COC	OTHER:	DATE	TIME	BTEX	TPH	Chloride														
11	T2-SOUTH		->	-	×	^					×		5/30/18	3:00 PM	×	×	×		Ш		-		++		++		++	++			
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service. In no event shall Cardi affiliates or successors arising o	ariayses, ni vains initionity trust for negligence and any orier 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 lable for incidental or consequental damages, including whose in the consequent of the applicable of the consequent of the consequent of the applicable of the consequent of the consequ	eemed w	nitation	on, busine	made ness i	in wr	ption:	s, los	of u	se, o	Card	of p	vithin 30 days after co ofits incurred by clien	mpletion of the a t, its subsidiaries,	applicable	150															

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 160930

#### **CONDITIONS**

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	160930
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

#### CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	11/22/2022