

June 8, 2018

Olivia Yu Oil Conservation Division, District 1 1625 N. French Dr. Hobbs, NM 88240

Henryetta Price Bureau of Land Management, CFO 620 E. Green Street Carlsbad, NM 88220 **APPROVED** By Olivia Yu at 7:17 am, Sep 19, 2018

NMOCD grants closure to 1RP-4956.

Re: Closure Letter Corvo Federal #002H API #: 30-025-41910 RP#: 1RP-4956 Unit Letter B Section 32, Township 24S, Range 32E Lea County, NM

Ms. Yu/Mr. Mann,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Corvo Federal #002H. This release occurred on January 30, 2018. The release originated from the flare stack and caused an overspray onto the location.

BACKGROUND

The Corvo Federal #002H release is located in Unit Letter B, Section 32, Township 24 South and Range 32 East in Lea County, New Mexico. More specifically the latitude and longitude for this release are 32.1806145 North and -103.6958389 West.

On January 30, 2018, a faulty back pressure value caused fluid to be sent to the flare resulting in a release of approximately five (5) barrels (bbls) of oil and three (3) bbls of produced water. A vacuum truck was dispatched to recover freestanding fluids. Approximately four (4) bbls of oil and two (2) bbls of produced water were recovered.

A backhoe was utilized to remove as much impacted soil as possible during initial mitigation efforts. Field data indicated that all of the impacted soil above New Mexico Oil Conservation Division NMOCD Recommended Remedial Action Levels (RRAL's) was removed. Soil samples were obtained from the bottom and sidewalls of the excavation to confirm the field results. Analytical results from our confirmation soil sampling activities are summarized in the table below.

GROUNDWATER AND SITE RANKING

According to the New Mexico Office of the State Engineer (NMOSE) groundwater in the project vicinity is approximately three-hundred and eighty (380) 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	>1000-feet
Wellhead Protection Area	>1000-feet

CONFIRMATION SOIL SAMPLING RESULTS

Sample ID	Depth (feet)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
S-1	0.5	< 0.050	< 0.300	320	<10.0
S-2	SIDEWALL	< 0.050	< 0.300	48.0	48.7
S-3	SIDEWALL	< 0.050	< 0.300	272	<10.0
S-4	SIDEWALL	< 0.050	< 0.300	480	<10.0
S-5	SIDEWALL	< 0.050	< 0.300	224	<10.0

REMEDIAL ACTIONS

- The impacted area was excavated to a depth of one-half (0.5) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Soil samples were taken from the bottom and sidewalls of the excavation.
- Analytical results from the soil sampling activities confirmed that all of the soil above NMOCD RRAL's was successfully removed during initial release mitigation activities.
- The excavation was backfilled witch caliche and contoured to match the surrounding location.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Corvo Federal #002H incident that occurred on January 30, 2018.

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

Sincerely,

Sheldon Jutan

Sheldon L. Hitchcock HSE Coordinator 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

January 30, 2018

Corvo Federal #002H



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)	(•••					2=NE 3= t to larg	=SW 4=SE) est) (NA) AD83 UTM in me	ters)	(1	n feet)	
POD Number	POD Sub- Code basin (County		Q 16		Sec	Tws	Rng	х	Y	Distance	-	Depth Water	Water Column
C 03530 POD1	С	LE	3	4	3	07	24S	32E	620886	3566156 🌍	5550	550		
C 03528 POD1	С	LE	1	1	2	15	24S	32E	626040	3566129 🌍	5877	541		
C 03527 POD1	С	LE	1	2	3	03	24S	32E	625770	3568487 🌍	7905	500		
C 03555 POD1	С	LE	2	2	1	05	24S	32E	622709	3569231 🌍	8184	600	380	220
										Avera	ge Depth to	Water:	380 1	feet
											Minimum	Depth:	380 1	feet
											Maximum	Depth:	380 1	feet
Record Count: 4														
Basin/County Searc	<u>h:</u>													
County: Lea														

UTMNAD83 Radius Search (in meters):

Easting (X): 623074

Northing (Y): 3561055

Radius: 8200

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

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

				S	anta F	e, NM 8/5	05					
Release Notification and Corrective Action												
OPERATOR Initial Report Final Report											eport	
Name of Co	ompany: C	OG Operat	ing, LLC	C (OGRID# 229	137)	Contact: Ro	bert McNeill					
Address: 60	0 West Ill	inois Avenu	ıe, Midla	nd TX 79701		Telephone I	No.: 432-683-7 4	43				
Facility Nat	ne: CORV	VO FEDER	AL #002	H		Facility Typ	be: Battery					
Surface Owner: Federal Mineral Owner: Federal API No.: 30-025-41910												
				LOC	ATIO	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/V	Vest Line	County		
N	29	24S	32E								Lea	
Latitude: 32.18142302 Longitude: - 103.69761604 NAD83												
NATURE OF RELEASE												
Type of Rele	ase: Produ	ced Water &	Dil			Volume of				Recovered:	:1	
Cause of Da	1 V.l	_					7; 5 bbls Oil			W; 4 bbls O		
Source of Release: Valve						Date and Hour of Occurrence: Date and Hour of Discovery:						

Source of Release: Valve	Date and Hour of Occurrence: 1/30/2018	1/30/2018 8:00 AM					
Was Immediate Notice Given?	If YES, To Whom?						
\Box Yes \boxtimes No \boxtimes Not Required							
By Whom?	Date and Hour:						
Was a Watercourse Reached?	If YES, Volume Impacting the Wate	ercourse.					
If a Watercourse was Impacted, Describe Fully.*	RECEIVED						
		t 1:20 pm, Feb 06, 2018					
Describe Cause of Problem and Remedial Action Taken.*	By Olivia Tu a	t 1.20 pm, 1 eb 00, 2018					
This release occurred when the back pressure valve on the inlet separator s water knockout resulting in fluid being sent to the flare. The back pressure							
Describe Area Affected and Cleanup Action Taken.*							
The release remained on location. A vacuum truck was dispatched to reco possible impact from the release and we will present a remediation work p							
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release no public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report do federal, state, or local laws and/or regulations.	otifications and perform corrective act e NMOCD marked as "Final Report" d e contamination that pose a threat to gr	ions for releases which may endanger loes not relieve the operator of liability round water, surface water, human health					
	OIL CONSERV	ATION DIVISION					
Signature:	Approved by Environmental Specialis	t: DY					
Printed Name: Dakota Neel							
Title: HSE Coordinator	Approval Date: 2/6/2018	Expiration Date:					
	Conditions of Approval:	Attached					
Date: 2/3/2018 Phone: 575-746-2010							

* Attach Additional Sheets If Necessary

1RP-4956

nOY1803748737

pOY1803749227

APPENDIX IV

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

I220 S. St. Francis Dr., Santa Fe, NM 87505 Santa	Fe, NM 87505	
Release Notificati	on and Corrective Acti	on
	OPERATOR	🗌 Initial Report 🛛 Final Repo
Name of Company: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443	
Facility Name: Corvo Federal #002H	Facility Type: Tank Battery	
Surface Owner: BLM Mineral Owner	r: Federal	API No.: 30-025-41910
	ON OF RELEASE rth/South Line Feet from the Ea	st/West Line County
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	North 2370	East Lea
Latitude: 32.1806145	Longitude: -103.6958389 NAD83	3
NATUR	E OF RELEASE	
Type of Release: Oil and Produced Water	Volume of Release:	Volume Recovered:
	5bbls Oil & 3bbls PW	4bbls Oil & 2bbls PW
Source of Release: Flare	Date and Hour of Occurrence: 1/30/2018	Date and Hour of Discovery: 1/30/2018 8:00am
Was Immediate Notice Given?	If YES, To Whom?	1/30/2010 0.0000
🗌 Yes 🛛 No 🖾 Not Requir		
By Whom?	Date and Hour:	
Was a Watercourse Reached?	If YES, Volume Impacting the V	Vatercourse.
🗌 Yes 🖾 No		
If a Watercourse was Impacted, Describe Fully.*	APPROVED	
		t 7:15 am, Sep 19, 2018
	By Olivia Tu al	1.15 all, Sep 19, 2018
Describe Cause of Problem and Remedial Action Taken.*		
The back pressure valve on the inlet separator stuck open. This caused	the separator to lose pressure and equa	alize with the FWKO resulting in fluid being
sent to the flare. The back pressure valve was replaced.		
Describe Area Affected and Cleanup Action Taken.*		
The release caused an overspray on the location. A vacuum truck was	utilized to recover all freestanding flui	ds A backhoe was utilized to scrape up the
impacted soil. Confirmation soil samples were taken from the bottom a		
		-
I hereby certify that the information given above is true and complete t		
regulations all operators are required to report and/or file certain releas public health or the environment. The acceptance of a C-141 report by		
should their operations have failed to adequately investigate and remec		
or the environment. In addition, NMOCD acceptance of a C-141 report		
federal, state, or local laws and/or regulations.	· · ·	
	OIL CONSE	RVATION DIVISION
91 11 0 0 0		M
Signature: Sheldon Jutan	- Approved by Environmental Specia	
	Approved by Environmental Specia	
Printed Name: Sheldon L. Hitchcock		
Title: HSE Coordinator	Approval Date: 9/19/2018	Expiration Dat XX/XX/XXXX
E-mail Address: slhitchcock@concho.com	Conditions of Approval:	
E-man Address, smitchcock@concilo.com	Conditions of Approval:	Attached
Date: 6/8/2018 Phone: 575-746-2010	BLM approval	
Attach Additional Sheets If Necessary	·	

APPENDIX V



April 12, 2018

DAVID ADKINS TALON LPE 408 W. TEXAS AVE. ARTESIA, NM 88210

RE: CORVO FEDERAL 2

Enclosed are the results of analyses for samples received by the laboratory on 04/05/18 16:45.

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 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.

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. Keine

Celey D. Keene Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	04/05/2018	Sampling Date:	04/04/2018
Reported:	04/12/2018	Sampling Type:	Soil
Project Name:	CORVO FEDERAL 2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: S-1 (H800946-01)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.8	% 72-148	,						
Chloride, SM4500Cl-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	04/10/2018	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	04/11/2018	ND	241	120	200	0.324	
DRO >C10-C28*	<10.0	10.0	04/11/2018	ND	232	116	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	04/11/2018	ND					
Surrogate: 1-Chlorooctane	79.4	% 41-142							
Surrogate: 1-Chlorooctadecane	78.5	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	04/05/2018	Sampling Date:	04/04/2018
Reported:	04/12/2018	Sampling Type:	Soil
Project Name:	CORVO FEDERAL 2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: S-2 (H800946-02)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.5	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/10/2018	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	04/11/2018	ND	241	120	200	0.324	
DRO >C10-C28*	48.7	10.0	04/11/2018	ND	232	116	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	04/11/2018	ND					
Surrogate: 1-Chlorooctane	83.3	% 41-142							
Surrogate: 1-Chlorooctadecane	81.4	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	04/05/2018	Sampling Date:	04/04/2018
Reported:	04/12/2018	Sampling Type:	Soil
Project Name:	CORVO FEDERAL 2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: S-4 (H800946-03)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300 0.300		04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.7	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	04/10/2018 ND		416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/11/2018	ND	241	120	200	0.324	
DRO >C10-C28*	<10.0 10.0		04/11/2018	ND	232	116	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	04/11/2018	ND					
Surrogate: 1-Chlorooctane	91.6	% 41-142							
Surrogate: 1-Chlorooctadecane	90.1	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	04/05/2018	Sampling Date:	04/04/2018
Reported:	04/12/2018	Sampling Type:	Soil
Project Name:	CORVO FEDERAL 2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: S-5 (H800946-04)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300 0.300		04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.0	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/10/2018	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/11/2018	ND	241	120	200	0.324	
DRO >C10-C28*	<10.0	10.0	04/11/2018	ND	232	116	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	04/11/2018	ND					
Surrogate: 1-Chlorooctane	99.5	% 41-142							
Surrogate: 1-Chlorooctadecane	93.4	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500CI-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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

shed By: A McdAANO Ime: Shed By: Ished By: red By: (Circle One) r - UPS - Bus - Other: Correction	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for analyses. All claims including those for negligence and any other cause whatsoever shall be service. In no event shall Cardinal be liable for incidental or consequential damages, including affiliates or successors arising out of or related to the performance of services hereunder by affiliates.	V S-S	.C.S. Y.	2 5-2	1-> 04600 L	Lab I.D. Sample I.D.	Sampler Name: R. Medravo	Project Location:	Project Name: Corvo Federal 2	Project #: Project Owner:	e#: 575.441.4835 F	Artesia	-	Project Manager: D. ADKINS	Company Name: TRUN/CPE	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476		1 (+ (7 (7 (CARDINAL
D Received By: Beceived By: Sample Condition Cool Intact Cool Intact Cool Intact No No	'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 sex whatsoever shall be deemed waived unless made in writing and received by Caddinu within 30 days after completion of the a ental damagee, including without limitation, business interruptions, loss of use, or loss of profils incurred by client its subsidiaries services hereunder by Candinal, regariless of whether such claim is based upon any of the above stated gesons or otherwise.	<u></u>		~ ~ ~ ~	GI W SC OI	G)RAB OR (C)OMP. CONTAINERS ROUNDWATER /ASTEWATER OIL IL LUDGE				ier: COG		7in 88210				8240 476			
n CHECKED BY: (nitials)	ct or tort, shall be limited to the amount paid by the id received by Cardinal within 30 days after compli- loss of use, or loss of profits incurred by client, its loss ad upon any of the above stated yeasons or is based upon any of the above stated yeasons or			7/7//8		THER : CID/BASE:	1	Phone #: 575.703.6	State: Zip:	City:	Address:	-	Company: へいぐ	P.O. #:	BILL TO	E			
Phone Result: Use Fax Result: Ves REMARKS:	y the client for the ampletion of the applicable nt, its subsidiaries, ns or otherwise.	/030		0,01	IIME	TOTAL	C				DE.	3					HAIN-OF-CUST		
- No Add' Phone #: - No Add' Fax #: ar David. 4/10/17 Ch			2			TPHEXT BTEX	×	nde		8		-8	*		ANALYSIS REQUEST		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST		

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 7 of 7



April 12, 2018

DAVID ADKINS TALON LPE 408 W. TEXAS AVE. ARTESIA, NM 88210

RE: CORVO FEDERAL 2

Enclosed are the results of analyses for samples received by the laboratory on 04/11/18 10:25.

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 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.

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. Keine

Celey D. Keene Lab Director/Quality Manager



TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:	04/11/2018	Sampling Date:	04/10/2018
Reported:	04/12/2018	Sampling Type:	Soil
Project Name:	CORVO FEDERAL 2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: S-3 (H800990-01)

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	04/11/2018	ND	2.07	104	2.00	0.0860	
Toluene*	<0.050	0.050	04/11/2018	ND	2.07	104	2.00	0.108	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.08	104	2.00	1.26	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.44	107	6.00	1.37	
Total BTEX	<0.300 0.300		04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.3	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	04/11/2018	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2018	ND	220	110	200	0.776	
DRO >C10-C28*	<10.0	10.0	04/12/2018	ND	226	113	200	0.523	
EXT DRO >C28-C36	<10.0	10.0	04/12/2018	ND					
Surrogate: 1-Chlorooctane	85.6	% 41-142							
Surrogate: 1-Chlorooctadecane	84.2	% 37.6-14	7						

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500CI-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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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