



December 17, 2020

Oil Conservation Division, District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Closure Report
Condor State 1H (5/7/19)
Tracking # NAB1915432422 (RP#: 1RP-5518)
GPS: 32.72958, -103.49786
Unit Letter N, Section 19, Township 18 South, Range 35 East
Lea County, New Mexico

To Whom it May Concern,

COG Operating, LLC (COG) is pleased to submit the following closure report in response to a release that occurred at the Condor State 1H flowline located in Unit Letter N, Section 19, Township 18 South and Range 35 East in Lea County, New Mexico.

BACKGROUND

The release was discovered on May 7, 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 flowline rupture in the pasture. Approximately seven and one half (7.5) barrels of produced water was released and none of the fluids were recovered. The initial C-141 is shown in Appendix A. A workplan was submitted to the NMOCD District I on September 3, 2019 and approved on October 2, 2019.

GROUNDWATER AND REGULATORY

According to the USGS groundwater data, there is one (1) well in Section 19 with a reported depth of water of 73 feet (1988) feet below surface. In addition, the New Mexico Office of the State Engineer also showed the same water well with an average depth to water of 70 feet below surface. The water well information is shown in Appendix B.

An evaluation and site determinations were performed 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, karst, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site, except for the release did occur within a draw (Ironhouse Draw). 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.)
Draw Area	51-100 feet

Delineation and Closure Criteria:

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

INITIAL ASSESSMENT

- The release area was initially evaluated and a workplan prepared and submitted to the NMOCD, dated September 3, 2019. The NMOCD approved the plan and the remediation performed in accordance with the work plan.

REMEDIAL ACTIONS

- The impacted area around BH-2 was excavated to a depth of approximately four (4) feet BGS and a 20-mil liner was installed to cap the remaining subsurface impact. The impacted area around BH-1 was excavated to a depth of approximately four (4.25) feet BGS.
- Confirmation soil samples were taken from bottom of the unlined area around BH-1 and sidewalls of the entire excavation per NMAC 19.15.29. Table 1 shows the sample depths and analytical results.
- All the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- The site was backfilled with clean "like" material.
- The analytical data shown in Table 1 show that the release area meets NMOCD closure criteria (NMAC 19.15.29.12(E) Table I) and NMAC 19.15.29.13(D)(1).

SAMPLING AND BACKFILLING

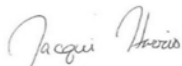
Once excavated, soil samples were collected in the unlined area to confirm the removal of impacted soil greater than regulatory limit. Composite bottom and sidewall samples were collected every 200 square feet to be representative of the release area. Once completed, the excavated area was backfilled with non-contaminated material with concentrations below 600 mg/kg of chlorides.

CLOSURE REQUEST

OG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division grant closure approval for the Condor State 1H release that occurred on May 7, 2019 (Tracking # NAB1915432422 (RP#: 1RP-5518)).

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

Sincerely,

A handwritten signature in cursive script that reads "Jacquie Harris".

Jacqui Harris
Senior HSE Coordinator
Jharris2@concho.com

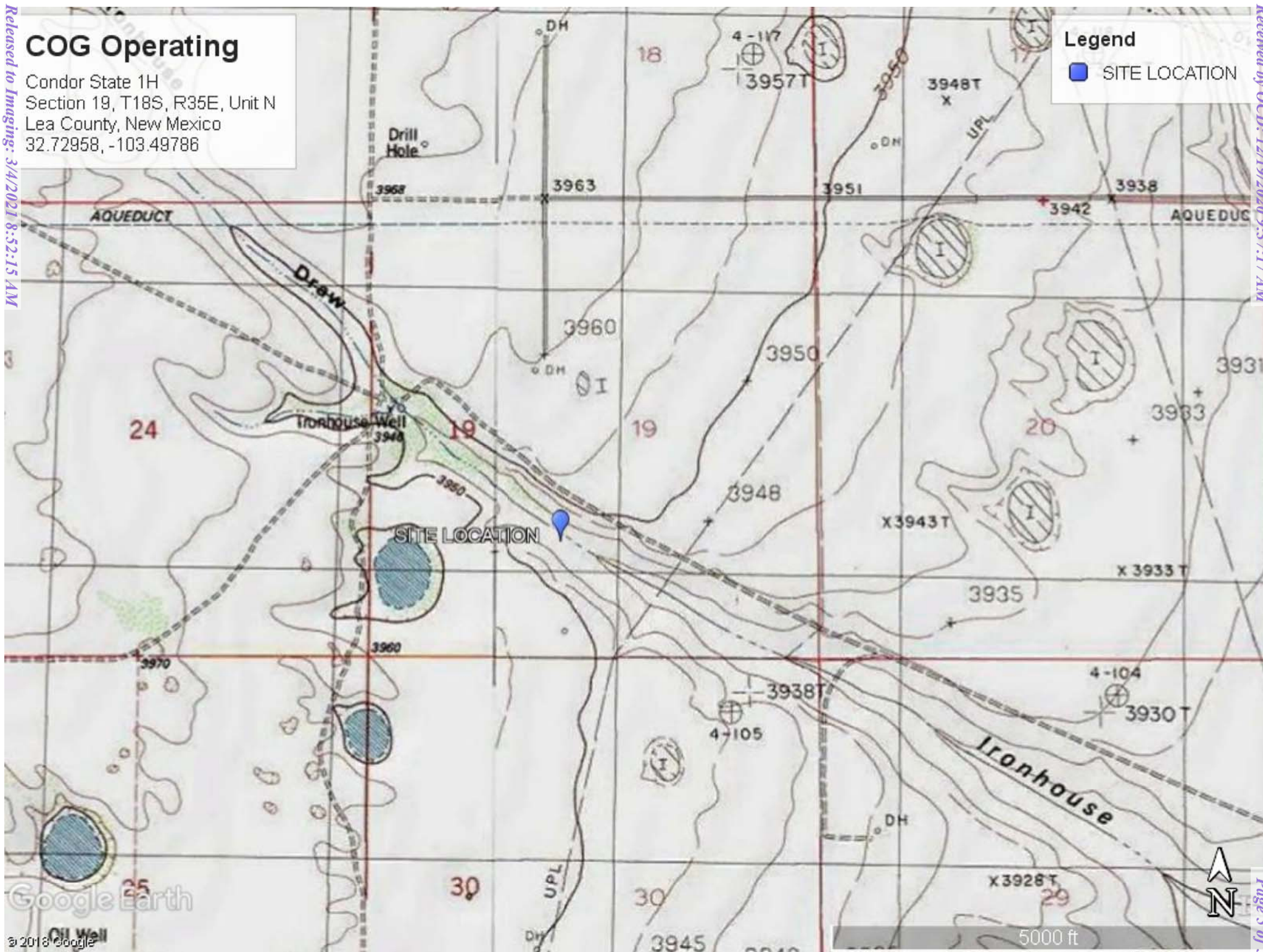
Maps

COG Operating

Condor State 1H
Section 19, T18S, R35E, Unit N
Lea County, New Mexico
32.72958, -103.49786

Legend

■ SITE LOCATION



COG Operating

Condor State 1H
Section 19, T18S, R35E
Lea County, New Mexico
32.72958, -103.49786

Legend

-  4' Excavated Area
-  Confirmation Samples
-  Liner
-  Sidewall Samples



Table of Analytical Data

Table 1
COG Operating LLC.
Condor State 1H
Lea County, New Mexico

Sample ID	Depth (feet (BGS))	Sample Date	TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total	GRO	DRO	Total			
Average Depth to Groundwater (ft) - 51'-100' Low Karst- In Draw Area												
NMOCD RAL Limits (mg/kg)			-	-	-	100	-	-	100	10	50	600
CS-1	4.25'	12/15/2020	<50.1	<50.1	<50.1	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	151
CS-2	4.25'	12/15/2020	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	147
CS-3	4.25'	12/15/2020	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<0.00199	<0.00199	145
CS-4	4.25'	12/15/2020	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	137
CS-5	4.25'	12/15/2020	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	127
CS-6	4.25'	12/15/2020	<50.1	<50.1	<50.1	<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	133
N-SW	0-4.25'	12/15/2020	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	137
E-SW	0-4.25'	12/15/2020	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	139
S-SW	0-4.25'	12/15/2020	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	195
W-SW	0-4.25'	12/15/2020	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	162

Photo



Appendix A

C-141

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 Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: _____	Title: _____
Signature: <u>Delann Opreant</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: _____	Date: _____

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 vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

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 wells.
- ☐ 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

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.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

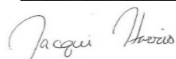
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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 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 of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

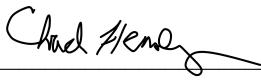
Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: _____

Printed Name: _____ Title: _____

Appendix B

Site Assessment Data

COG Operating

Condor State 1H
Section 19, T18S, R35E
Lea County, New Mexico
32.72958, -103.49786

Legend

-  Condor State 1H Release (5-7-19)
-  Low Karst Potential

Condor State 1H Release (5-7-19) 

Google Earth



200 ft

National Flood Hazard Layer FIRMette



103°30'11"W 32°44'2"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/16/2020 at 11:41 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



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 Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
L_03888		L	LE	3	1	19	18S	35E	640253	3622912*		107	70	37
L_07928		L	LE	4	4	1	19	18S	35E	640639	3622915		175	

Average Depth to Water: **70 feet**

Minimum Depth: **70 feet**

Maximum Depth: **70 feet**

Record Count: 2

PLSS Search:

Section(s): 19

Township: 18S

Range: 35E

*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.

9/3/19 1:54 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
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POD has been replaced
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(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	DepthWell	DepthWater	Column		
L_00335		L	LE	4	1	3	35	18S	35E	646843	3619253*	☐	124	45	79	
L_01225 POD1		L	LE	1	2	3	35	18S	35E	647047	3619458*	☐	97	50	47	
L_02052		L	LE				17	18S	35E	642438	3624337*	☐	190	72	118	
L_02053		L	LE				20	18S	35E	642464	3622723*	☐	175	78	97	
L_02348		L	LE	3	1	4	09	18S	35E	644116	3625679*	☐	215	105	110	
L_02349	R	L	LE	3	1	4	07	18S	35E	640891	3625641*	☐	207	85	122	
L_02349 POD2		L	LE	4	1	4	07	18S	35E	641091	3625641*	☐	214	85	129	
L_02349 POD3		L	LE	4	1	4	07	18S	35E	641091	3625641	☐	220	142	78	
L_02350		L	LE	4	1	3	08	18S	35E	641897	3625650*	☐	216	105	111	
L_02357		L	LE			2	20	18S	35E	642855	3623137*	☐	170	77	93	
L_02503	R	L	LE	2	4	1	02	18S	35E	647106	3627930*	☐	100			
L_02520		L	LE		4	1	23	18S	35E	647088	3622989*	☐	134	78	56	
L_02628		L	LE	2	2	3	11	18S	35E	647141	3625912*	☐	112	40	72	
L_02675		L	LE		3	2	15	18S	35E	645850	3624587*	☐	197	47	150	
L_02676		L	LE		1	2	16	18S	35E	644231	3624972*	☐	175	60	115	
L_02677		L	LE		3	4	15	18S	35E	645863	3623780*	☐	194	54	140	
L_02678		L	LE		3	4	22	18S	35E	645890	3622166*	☐	200	58	142	
L_02678	R	L	LE		3	4	22	18S	35E	645890	3622166*	☐	200	58	142	
L_02678 POD2	R	L	LE		3	4	22	18S	35E	645890	3622166*	☐	185	58	127	
L_02678 POD3		L	LE		3	4	22	18S	35E	645890	3622166*	☐	190	154	36	
L_02679		L	LE		4	4	21	18S	35E	644680	3622151*	☐	200	68	132	
L_02679	R	L	LE		4	4	21	18S	35E	644680	3622151*	☐	200	68	132	
L_02679 POD2		L	LE		3	2	22	18S	35E	645876	3622973*	☐	187	65	122	
L_02680		L	LE		1	2	21	18S	35E	644257	3623357*	☐	190	59	131	
L_03171		L	LE		3	3	17	18S	35E	641835	3623734*	☐	170	150	20	
L_03221		L	LE		4	2	14	18S	35E	647868	3624613*	☐	100	90	10	
L_03678		L	LE				35	18S	35E	647354	3619554*	☐	115	60	55	
L_03721		L	LE		3	3	18	18S	35E	640241	3623717*	☐	161	90	71	
L_03772		L	LE		2	2	21	18S	35E	644659	3623361*	☐	130	60	70	
L_03783		L	LE				27	18S	35E	645710	3621138*	☐	115	65	50	

L_03866	L	LE	3	3	22	18S	35E	645082	3622155*	☐	127	65	62		
L_03888	L	LE	3	1	19	18S	35E	640253	3622912*	☐	107	70	37		
L_03963	L	LE	1	2	27	18S	35E	645896	3621762*	☐	127	70	57		
L_04206	L	LE	3	4	04	18S	35E	644194	3626992*	☐	125	50	75		
L_04250	L	LE			05	18S	35E	642378	3627565*	☐	112	60	52		
L_04399	L	LE	3	3	22	18S	35E	645082	3622155*	☐	90	75	15		
L_04498	L	LE	3	1	04	18S	35E	643373	3627790*	☐	128	70	58		
L_04562	L	LE	3	1	29	18S	35E	641874	3621315*	☐	156	95	61		
L_04591	L	LE	4	2	05	18S	35E	642970	3627785*	☐	130	75	55		
L_04631	L	LE	2	1	1	04	18S	35E	643465	3628292*	☐	140	60	80	
L_04664	L	LE		2	3	05	18S	35E	642171	3627371*	☐	140	70	70	
L_04744	L	LE	1	2	2	02	18S	35E	647704	3628341*	☐	122	51	71	
L_04777	L	LE	1	2	2	07	18S	35E	641279	3626653*	☐	145	85	60	
L_04778	L	LE		2	1	07	18S	35E	640575	3626545*	☐	150	75	75	
L_04794	L	LE			4	07	18S	35E	641200	3625540*	☐	150	95	55	
L_04796	L	LE	4	4	3	06	18S	35E	640667	3626847*	☐	150	95	55	
L_04906	L	LE			3	07	18S	35E	640415	3625532*	☐	155	87	68	
L_04931	L	LE		1	2	05	18S	35E	642561	3628183*	☐	237	70	167	
L_04931 X	L	LE		1	3	07	18S	35E	640208	3625735*	☐	212	105	107	
L_04975	L	LE		2	2	3	07	18S	35E	640688	3625837*	☐	152	105	47
L_05156	L	LE		4	1	17	18S	35E	642224	3624545*	☐	150	90	60	
L_05172	L	LE		3	3	07	18S	35E	640214	3625331*	☐	161	85	76	
L_05235	L	LE		1	2	02	18S	35E	647402	3628238*	☐	114	54	60	
L_05385	L	LE				01	18S	35E	648832	3627639*	☐	100			
L_05411	L	LE		3	4	06	18S	35E	640970	3626952*	☐	120	60	60	
L_05444	L	LE		4	3	32	18S	35E	642319	3618899*	☐	80	58	22	
L_05523	L	LE		3	3	2	06	18S	35E	640855	3627660*	☐	147	85	62
L_05810	L	LE			2	3	22	18S	35E	645479	3622564*	☐	145	95	50
L_06047	L	LE		2	2	1	16	18S	35E	643927	3625066*	☐	122	65	57
L_06868	L	LE		1	4	3	26	18S	35E	647026	3620666*	☐	110	57	53
L_06869	L	LE			1	3	26	18S	35E	646717	3620966*	☐	125	60	65
L_07119	L	LE		1	1	1	06	18S	35E	640068	3628255*	☐	233	95	138
L_07119 S	L	LE		1	2	1	06	18S	35E	640445	3628259*	☐	233	95	138
L_07129	L	LE		4	3	3	34	18S	35E	645237	3618830*	☐	60	40	20
L_07872	L	LE		1	3	3	03	18S	35E	644900	3627101*	☐	162	62	100
L_07928	L	LE		4	4	1	19	18S	35E	640639	3622915	☐	175		
L_08309	L	LE		1	2	2	10	18S	35E	646122	3626711*	☐	112	49	63
L_09373	L	LE		3	1	1	26	18S	35E	646580	3621579	☐	120	60	60
L_09524	L	LE		1	4	35	18S	35E	647552	3619364*	☐	140	57	83	

L_09574	L	LE	4	2	14	18S	35E	647868	3624613*	☐	90			
L_09588	L	LE	4	3	4	16	18S	35E	644349	3623659*	☐	155	84	71
L_09726	L	LE	4	4	4	11	18S	35E	647953	3625318*	☐	135	48	87
L_09742	L	LE		1	4	17	18S	35E	642474	3624312	☐	200		
L_09745	L	LE	2	4	3	35	18S	35E	647254	3619055*	☐	106	65	41
L_09762	L	LE		3	3	33	18S	35E	643526	3618913*	☐	160	80	80
L_09766	L	LE		1	1	13	18S	35E	648106	3624799	☐	135	135	0
L_09958	L	LE	4	2	2	35	18S	35E	648040	3620074*	☐	150	55	95
L_10294	L	LE		2	4	03	18S	35E	646209	3627419*	☐	90	61	29
L_10304	L	LE	1	4	4	09	18S	35E	644526	3625479*	☐	170	72	98
L_10337	L	LE	4	1	1	06	18S	35E	640268	3628055*	☐	190	100	90
L_11511	L	LE	2	4	4	25	18S	35E	649646	3620696*	☐	102	62	40
L_12932 POD1	L	LE	2	2	1	02	18S	35E	676000	3628886	☐	175	95	80
L_13041 POD1	L	LE		2	2	06	18S	35E	641152	3628026	☐	130		
L_13041 POD2	L	LE		2	2	06	18S	35E	641152	3628026	☐	140		
L_13041 POD3	L	LE		2	2	06	18S	35E	641152	3628026	☐	140		
L_13041 POD4	L	LE		2	2	06	18S	35E	641152	3628026	☐	140		
L_13392 POD14	L	LE	4	1	2	06	18S	35E	641118	3628007	☐	133		
L_13392 POD15	L	LE	4	1	2	06	18S	35E	641119	3628041	☐	137		
L_13392 POD16	L	LE	3	2	2	06	18S	35E	641171	3627989	☐	138		
L_13392 POD17	L	LE	4	1	2	06	18S	35E	641149	3627992	☐	138		
L_13392 POD18	L	LE	4	1	2	06	18S	35E	641143	3628014	☐	138		
L_13392 POD19	L	LE	3	2	2	06	18S	35E	641155	3628080	☐	138		
L_13392 POD20	L	LE	4	1	2	06	18S	35E	641081	3628000	☐	138		
L_13988 POD1	L	LE	1	3	4	34	18S	35E	645839	3618945	☐	110	38	72
L_14712 POD1	L	LE	1	3	2	02	18S	35E	647299	3627869	☐	190	60	130

Average Depth to Water: **74 feet**Minimum Depth: **38 feet**Maximum Depth: **154 feet**

Record Count: 95

PLSS Search:**Township:** 18S **Range:** 35E***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.

9/3/19 1:54 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 324347103300801

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 324347103300801 18S.35E.19.13334

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°44'01", Longitude 103°30'17" NAD27

Land-surface elevation 3,944.00 feet above NGVD29

The depth of the well is 107 feet below land surface.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

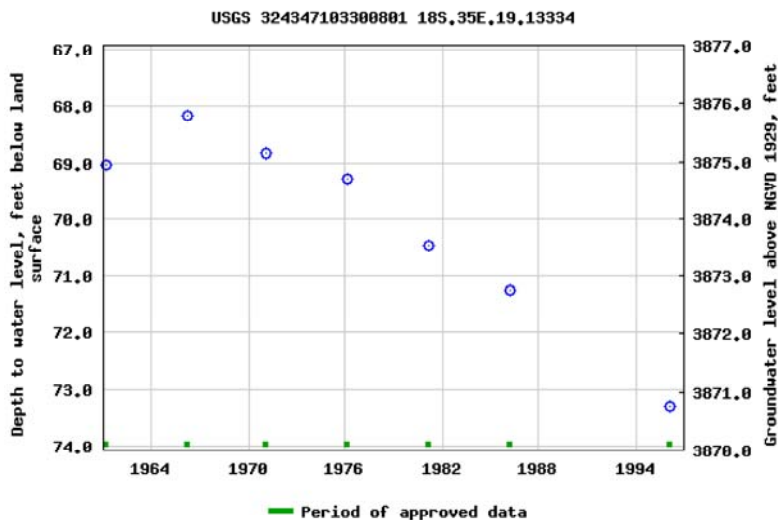
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =
• 324420103281501

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 324420103281501 18S.35E.20.41111

Available data for this site

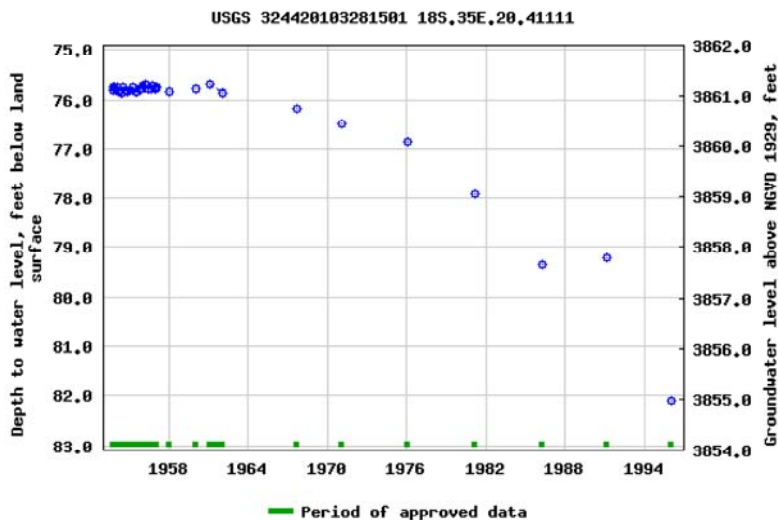
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°43'59", Longitude 103°28'46" NAD27
Land-surface elevation 3,937.00 feet above NGVD29
The depth of the well is 175 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =
• 324249103274401

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 324249103274401 18S.35E.28.32210

Available data for this site

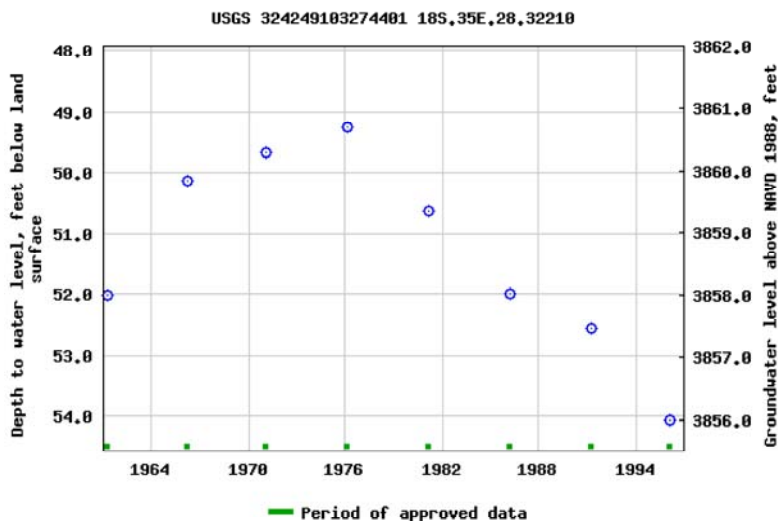
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°42'49", Longitude 103°27'44" NAD27
Land-surface elevation 3,910 feet above NAVD88
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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Appendix C

Analytical Reports

Certificate of Analysis Summary 681194

COG Operating LLC, Artesia, NM

Project Name: Condor State 1H

Project Id:

Contact: Jacqui Harris

Project Location: Lea County

Date Received in Lab: Tue 12.15.2020 16:30

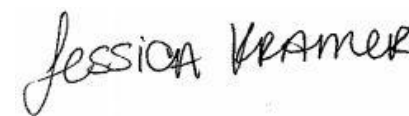
Report Date: 12.16.2020 13:45

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681194-001	681194-002	681194-003	681194-004	681194-005	681194-006
	<i>Field Id:</i>	CS-1	CS-2	CS-3	CS-4	CS-5	CS-6
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.15.2020 15:00	12.15.2020 15:05	12.15.2020 15:10	12.15.2020 15:15	12.15.2020 15:20	12.15.2020 15:25
BTEX by EPA 8021B	<i>Extracted:</i>	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03
	<i>Analyzed:</i>	12.15.2020 21:01	12.15.2020 21:23	12.15.2020 21:45	12.15.2020 22:08	12.15.2020 22:30	12.15.2020 22:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
m,p-Xylenes		<0.00401 0.00401	<0.00397 0.00397	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59
	<i>Analyzed:</i>	12.16.2020 00:48	12.16.2020 01:06	12.16.2020 01:12	12.16.2020 01:18	12.16.2020 01:24	12.16.2020 01:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		151 49.6	147 49.9	145 49.9	137 50.1	127 50.1	133 49.6
TPH By SW8015 Mod	<i>Extracted:</i>	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00
	<i>Analyzed:</i>	12.15.2020 23:04	12.16.2020 00:04	12.16.2020 00:24	12.16.2020 00:45	12.16.2020 01:05	12.16.2020 01:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1
Diesel Range Organics		<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1
Total TPH		<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 681194

COG Operating LLC, Artesia, NM

Project Name: Condor State 1H

Project Id:

Contact: Jacqui Harris

Project Location: Lea County

Date Received in Lab: Tue 12.15.2020 16:30

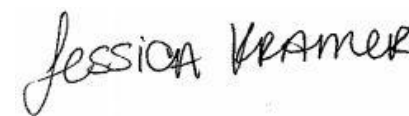
Report Date: 12.16.2020 13:45

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681194-007	681194-008	681194-009	681194-010		
	<i>Field Id:</i>	N-SW	E-SW	S-SW	W-SW		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.15.2020 15:30	12.15.2020 15:35	12.15.2020 15:40	12.15.2020 15:45		
BTEX by EPA 8021B	<i>Extracted:</i>	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03	12.15.2020 20:03		
	<i>Analyzed:</i>	12.15.2020 23:15	12.15.2020 23:37	12.16.2020 00:00	12.16.2020 00:22		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398		
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199		
Chloride by EPA 300	<i>Extracted:</i>	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59	12.15.2020 17:59		
	<i>Analyzed:</i>	12.16.2020 01:48	12.16.2020 01:53	12.16.2020 01:59	12.16.2020 02:05		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		137 49.7	139 49.9	195 49.5	162 49.9		
TPH By SW8015 Mod	<i>Extracted:</i>	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00		
	<i>Analyzed:</i>	12.16.2020 01:45	12.16.2020 02:05	12.16.2020 02:25	12.16.2020 02:45		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.8 49.8		
Diesel Range Organics		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.8 49.8		
Total TPH		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.8 49.8		

BRL - Below Reporting Limit

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





Analytical Report 681194

for

COG Operating LLC

Project Manager: Jacqui Harris

Condor State 1H

12.16.2020

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: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.16.2020

Project Manager: **Jacqui Harris**

COG Operating LLC

2407 Pecos Avenue

Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **681194**

Condor State 1H

Project Address: Lea County

Jacqui Harris:

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) 681194. 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. 681194 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,

A handwritten signature in black ink that reads "Jessica Kramer".

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 681194****COG Operating LLC, Artesia, NM**

Condor State 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1	S	12.15.2020 15:00		681194-001
CS-2	S	12.15.2020 15:05		681194-002
CS-3	S	12.15.2020 15:10		681194-003
CS-4	S	12.15.2020 15:15		681194-004
CS-5	S	12.15.2020 15:20		681194-005
CS-6	S	12.15.2020 15:25		681194-006
N-SW	S	12.15.2020 15:30		681194-007
E-SW	S	12.15.2020 15:35		681194-008
S-SW	S	12.15.2020 15:40		681194-009
W-SW	S	12.15.2020 15:45		681194-010



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Condor State 1H

Project ID:

Work Order Number(s): 681194

Report Date: 12.16.2020

Date Received: 12.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-1
Lab Sample Id: 681194-001

Matrix: Soil
Date Collected: 12.15.2020 15:00

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	49.6	mg/kg	12.16.2020 00:48		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	12.15.2020 23:04	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	12.15.2020 23:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 23:04	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.15.2020 23:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.15.2020 23:04	
o-Terphenyl	84-15-1	114	%	70-135	12.15.2020 23:04	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-1
Lab Sample Id: 681194-001

Matrix: Soil
Date Collected: 12.15.2020 15:00

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.15.2020 21:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 21:01	
4-Bromofluorobenzene	460-00-4	87	%	70-130	12.15.2020 21:01	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-2
Lab Sample Id: 681194-002

Matrix: Soil
Date Collected: 12.15.2020 15:05

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	147	49.9	mg/kg	12.16.2020 01:06		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.16.2020 00:04	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 00:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 00:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 00:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	12.16.2020 00:04		
o-Terphenyl	84-15-1	112	%	70-135	12.16.2020 00:04		



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-2
Lab Sample Id: 681194-002

Matrix: Soil
Date Collected: 12.15.2020 15:05

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 21:23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 21:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.15.2020 21:23	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.15.2020 21:23	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-3
Lab Sample Id: 681194-003

Matrix: Soil
Date Collected: 12.15.2020 15:10

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	145	49.9	mg/kg	12.16.2020 01:12		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	12.16.2020 00:24	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	12.16.2020 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.16.2020 00:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.16.2020 00:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	12.16.2020 00:24	
o-Terphenyl	84-15-1	96	%	70-135	12.16.2020 00:24	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-3
Lab Sample Id: 681194-003

Matrix: Soil
Date Collected: 12.15.2020 15:10

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 21:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 21:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 21:45	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.15.2020 21:45	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **CS-4** Matrix: Soil Date Received: 12.15.2020 16:30
 Lab Sample Id: 681194-004 Date Collected: 12.15.2020 15:15
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.15.2020 17:59 % Moisture:
 Seq Number: 3145025 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	50.1	mg/kg	12.16.2020 01:18		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.15.2020 18:00 % Moisture:
 Seq Number: 3145055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	12.16.2020 00:45	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	12.16.2020 00:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.16.2020 00:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.16.2020 00:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	118	%	70-135	12.16.2020 00:45		
o-Terphenyl	84-15-1	116	%	70-135	12.16.2020 00:45		



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-4
Lab Sample Id: 681194-004

Matrix: Soil
Date Collected: 12.15.2020 15:15

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 22:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 22:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.15.2020 22:08	
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.15.2020 22:08	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-5
Lab Sample Id: 681194-005

Matrix: Soil
Date Collected: 12.15.2020 15:20

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	50.1	mg/kg	12.16.2020 01:24		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.16.2020 01:05	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 01:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 01:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.16.2020 01:05	
o-Terphenyl	84-15-1	110	%	70-135	12.16.2020 01:05	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-5
Lab Sample Id: 681194-005

Matrix: Soil
Date Collected: 12.15.2020 15:20

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.15.2020 22:30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.15.2020 22:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 22:30	
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.15.2020 22:30	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-6
Lab Sample Id: 681194-006

Matrix: Soil
Date Collected: 12.15.2020 15:25

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	133	49.6	mg/kg	12.16.2020 01:42		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	12.16.2020 01:25	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	12.16.2020 01:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.16.2020 01:25	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.16.2020 01:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	116	%	70-135	12.16.2020 01:25		
o-Terphenyl	84-15-1	105	%	70-135	12.16.2020 01:25		



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: CS-6
Lab Sample Id: 681194-006

Matrix: Soil
Date Collected: 12.15.2020 15:25

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 22:53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 22:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.15.2020 22:53		
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.15.2020 22:53		



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: N-SW
Lab Sample Id: 681194-007

Matrix: Soil
Date Collected: 12.15.2020 15:30

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	49.7	mg/kg	12.16.2020 01:48		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	12.16.2020 01:45	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	12.16.2020 01:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.16.2020 01:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.16.2020 01:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.16.2020 01:45	
o-Terphenyl	84-15-1	116	%	70-135	12.16.2020 01:45	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **N-SW**
Lab Sample Id: 681194-007

Matrix: Soil
Date Collected: 12.15.2020 15:30

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 23:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.15.2020 23:15	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 23:15	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **E-SW**
Lab Sample Id: 681194-008

Matrix: Soil
Date Collected: 12.15.2020 15:35

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	139	49.9	mg/kg	12.16.2020 01:53		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.16.2020 02:05	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 02:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 02:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 02:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.16.2020 02:05	
o-Terphenyl	84-15-1	106	%	70-135	12.16.2020 02:05	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **E-SW**
Lab Sample Id: 681194-008

Matrix: Soil
Date Collected: 12.15.2020 15:35

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 23:37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 23:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.15.2020 23:37	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.15.2020 23:37	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **S-SW** Matrix: Soil Date Received: 12.15.2020 16:30
 Lab Sample Id: 681194-009 Date Collected: 12.15.2020 15:40
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.15.2020 17:59 % Moisture:
 Seq Number: 3145025 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	195	49.5	mg/kg	12.16.2020 01:59		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.15.2020 18:00 % Moisture:
 Seq Number: 3145055 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.16.2020 02:25	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 02:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 02:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 02:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	12.16.2020 02:25		
o-Terphenyl	84-15-1	112	%	70-135	12.16.2020 02:25		



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: S-SW
Lab Sample Id: 681194-009

Matrix: Soil
Date Collected: 12.15.2020 15:40

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.16.2020 00:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.16.2020 00:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.16.2020 00:00	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.16.2020 00:00	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **W-SW**
Lab Sample Id: 681194-010

Matrix: Soil
Date Collected: 12.15.2020 15:45

Date Received: 12.15.2020 16:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 17:59

% Moisture:
Basis: Wet Weight

Seq Number: 3145025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	49.9	mg/kg	12.16.2020 02:05		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	12.16.2020 02:45	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	12.16.2020 02:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.16.2020 02:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.16.2020 02:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.16.2020 02:45	
o-Terphenyl	84-15-1	101	%	70-135	12.16.2020 02:45	



Certificate of Analytical Results 681194

COG Operating LLC, Artesia, NM

Condor State 1H

Sample Id: **W-SW**
Lab Sample Id: 681194-010

Matrix: Soil
Date Collected: 12.15.2020 15:45

Date Received: 12.15.2020 16:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.15.2020 20:03

% Moisture:
Basis: Wet Weight

Seq Number: 3145018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.16.2020 00:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.16.2020 00:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.16.2020 00:22		
4-Bromofluorobenzene	460-00-4	87	%	70-130	12.16.2020 00:22		

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.

** Surrogate recovered outside laboratory control limit.

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



COG Operating LLC

Condor State 1H

Analytical Method: Chloride by EPA 300

Seq Number: 3145025

MB Sample Id: 7717184-1-BLK

Matrix: Solid

LCS Sample Id: 7717184-1-BKS

Prep Method: E300P

Date Prep: 12.15.2020

LCSD Sample Id: 7717184-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	262	105	90-110	0	20	mg/kg	12.16.2020 00:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3145025

Parent Sample Id: 681151-001

Matrix: Soil

MS Sample Id: 681151-001 S

Prep Method: E300P

Date Prep: 12.15.2020

MSD Sample Id: 681151-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	89.6	200	287	99	285	98	90-110	1	20	mg/kg	12.16.2020 02:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3145025

Parent Sample Id: 681194-001

Matrix: Soil

MS Sample Id: 681194-001 S

Prep Method: E300P

Date Prep: 12.15.2020

MSD Sample Id: 681194-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	151	199	336	93	341	95	90-110	1	20	mg/kg	12.16.2020 00:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3145055

MB Sample Id: 7717217-1-BLK

Matrix: Solid

LCS Sample Id: 7717217-1-BKS

Prep Method: SW8015P

Date Prep: 12.15.2020

LCSD Sample Id: 7717217-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1080	108	1160	116	70-135	7	35	mg/kg	12.15.2020 22:24	
Diesel Range Organics	<50.0	1000	1120	112	1160	116	70-135	4	35	mg/kg	12.15.2020 22:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		96		107		70-135	%	12.15.2020 22:24
o-Terphenyl	115		110		112		70-135	%	12.15.2020 22:24

Analytical Method: TPH By SW8015 Mod

Seq Number: 3145055

Matrix: Solid

MB Sample Id: 7717217-1-BLK

Prep Method: SW8015P

Date Prep: 12.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.15.2020 22:03	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



COG Operating LLC Condor State 1H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3145055

Parent Sample Id: 681194-001

Matrix: Soil

MS Sample Id: 681194-001 S

Prep Method: SW8015P

Date Prep: 12.15.2020

MSD Sample Id: 681194-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1050	105	991	99	70-135	6	35	mg/kg	12.15.2020 23:24	
Diesel Range Organics	<50.0	1000	1120	112	1080	108	70-135	4	35	mg/kg	12.15.2020 23:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		99		70-135	%	12.15.2020 23:24
o-Terphenyl	104		108		70-135	%	12.15.2020 23:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145018

MB Sample Id: 7717186-1-BLK

Matrix: Solid

LCS Sample Id: 7717186-1-BKS

Prep Method: SW5035A

Date Prep: 12.15.2020

LCSD Sample Id: 7717186-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.102	102	70-130	1	35	mg/kg	12.15.2020 18:58	
Toluene	<0.00200	0.100	0.0956	96	0.0967	97	70-130	1	35	mg/kg	12.15.2020 18:58	
Ethylbenzene	<0.00200	0.100	0.0919	92	0.0901	90	71-129	2	35	mg/kg	12.15.2020 18:58	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.180	90	70-135	1	35	mg/kg	12.15.2020 18:58	
o-Xylene	<0.00200	0.100	0.0892	89	0.0906	91	71-133	2	35	mg/kg	12.15.2020 18:58	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		93		91		70-130	%	12.15.2020 18:58
4-Bromofluorobenzene	88		86		81		70-130	%	12.15.2020 18:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145018

Parent Sample Id: 681194-001

Matrix: Soil

MS Sample Id: 681194-001 S

Prep Method: SW5035A

Date Prep: 12.15.2020

MSD Sample Id: 681194-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.109	108	0.114	114	70-130	4	35	mg/kg	12.15.2020 19:43	
Toluene	<0.00201	0.101	0.102	101	0.108	108	70-130	6	35	mg/kg	12.15.2020 19:43	
Ethylbenzene	<0.00201	0.101	0.0916	91	0.0994	100	71-129	8	35	mg/kg	12.15.2020 19:43	
m,p-Xylenes	<0.00402	0.201	0.185	92	0.204	102	70-135	10	35	mg/kg	12.15.2020 19:43	
o-Xylene	<0.00201	0.101	0.0905	90	0.101	101	71-133	11	35	mg/kg	12.15.2020 19:43	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		70-130	%	12.15.2020 19:43
4-Bromofluorobenzene	86		87		70-130	%	12.15.2020 19:43

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Analysis Request of Chain of Custody Record



One Concho
Center 600 Illinois
Avenue Midland, Texas

Tel (432) 683-7443

Page 1 of 1

Client Name: COG		Site Manager: Jacqui Harris		ANALYSIS REQUEST (Circle or Specify Method No.)	
Project Name: Condor State 1H		Project #:		TPH 8015M (GRO - DRO - MRO)	
Project Location: Lea, NM		Project #:		BTX 8021B	
Invoice to: Jacqui Harris		Project #:		Chloride	
Receiving Laboratory: Jacqui Harris		Sampler Name: Jacqui Harris			
Comments:					

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	(C)omposite/(G)rat	LAB USE ONLY	REMARKS:
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE					
CS-1		12.15.20	13:00	X								X	
CS-2		12.15.20	13:05	X								X	
CS-3		12.15.20	13:10	X								X	
CS-4		12.15.20	13:15	X								X	
CS-5		12.15.20	13:20	X								X	
CS-6		12.15.20	13:25	X								X	
N-SW		12.15.20	13:30	X								X	
E-SW		12.15.20	13:35	X								X	
S-SW		12.15.20	13:40	X								X	
W-SW		12.15.20	13:45	X								X	

Relinquished by: <i>Jacqui Harris</i>	Date: 12/15/20	Time: 16:30	Received by: <i>J</i>	Date: 12/15/20	Time: 16:30
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Sample Temperature: 6.0/5.8	LAB USE ONLY	REMARKS:
		☒ RUSH: Same Day 24 hr 48 hr 72 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 12.15.2020 04.30.00 PM

Work Order #: 681194

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T NM 007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ 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
#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)?	N/A
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 12.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.16.2020

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
District IV
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 12742

CONDITIONS OF APPROVAL

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX79701			OGRID: 229137	Action Number: 12742	Action Type: C-141
OCD Reviewer	Condition				
chensley	If liner placement is proposed, a confirmation sample(s) needs to be obtained prior to placement of the liner.				