CONCHO

December 20, 2019

Mike Bratcher
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Closure Report
Bar W Fee #005
API#: 30-015-34047
RP#: Not Assigned
DOR: September 21, 2019
GPS: 32.400270 -104.181383
Unit Letter N, Section 10, Township 22 South, Range 27 East
Eddy 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 on a flowline associated with the Bar W Fee #005. The release was located in Unit Letter N, Section 10, Township 22 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.400270 North and -104.181383 West.

BACKGROUND

The release was discovered on September 21, 2019 and a C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD) A flowline failure resulted in a release of approximately twenty (20) barrels (bbls) of produced water. A vacuum truck was utilized to recover free standing fluids. Approximately ten (10) bbls of produced water were recovered. The fluid impacted an access road adjacent to an alfalfa field.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer groundwater in the project vicinity is approximately twenty (20) feet below ground surface (BGS). The water well information is shown in Appendix B.

A risk based 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 in New Mexico (effective August 14, 2018). According to the site characterization evaluation the following receptors were located within each specific boundaries or distance from the site: water well, medium karst potential, 100-year floodplain, permanent residence. 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.)
Water Well, Karst, Floodplain, Residence	20 feet

Delineation and Closure Criteria:

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

REMEDIAL ACTIONS

- A hand auger was utilized to collect a background soil sample at five (5) feet BGS which is representative of the excavation depth within the impacted area. It was determined that background chloride concentrations in this area are 288 mg/kg.
- The impacted area was excavated to a depth of five (5) feet BGS utilizing laboratory analysis to guide the extent of the excavation.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from bottom and sidewalls of the excavation per NMAC 19.15.29.

- The site was backfilled with clean "like" material and contoured to match the surrounding location.

SITE RECLAMATION AND RESTORATION

Per NMED 19.15.29.13 reclamation of the pasture area has been performed by removing impacted soils greater than table one closure criteria, taking background chloride concentrations into consideration. Approximately one-thousand nine-hundred and twenty-five (1,925) cubic yards of material was removed and hauled to an NMOCD approved solid waste disposal facility. The excavated area was backfilled with clean "like" material and contoured to match the surrounding location. The affected area was located in an access road adjacent to an agricultural field (producing alfalfa at the time of the remediation). The reclaimed area will be utilized at the landowner's discretion.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division grant closure approval for the Bar W Fee #005 incident that occurred on September 21, 2019.

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

Sincerely,

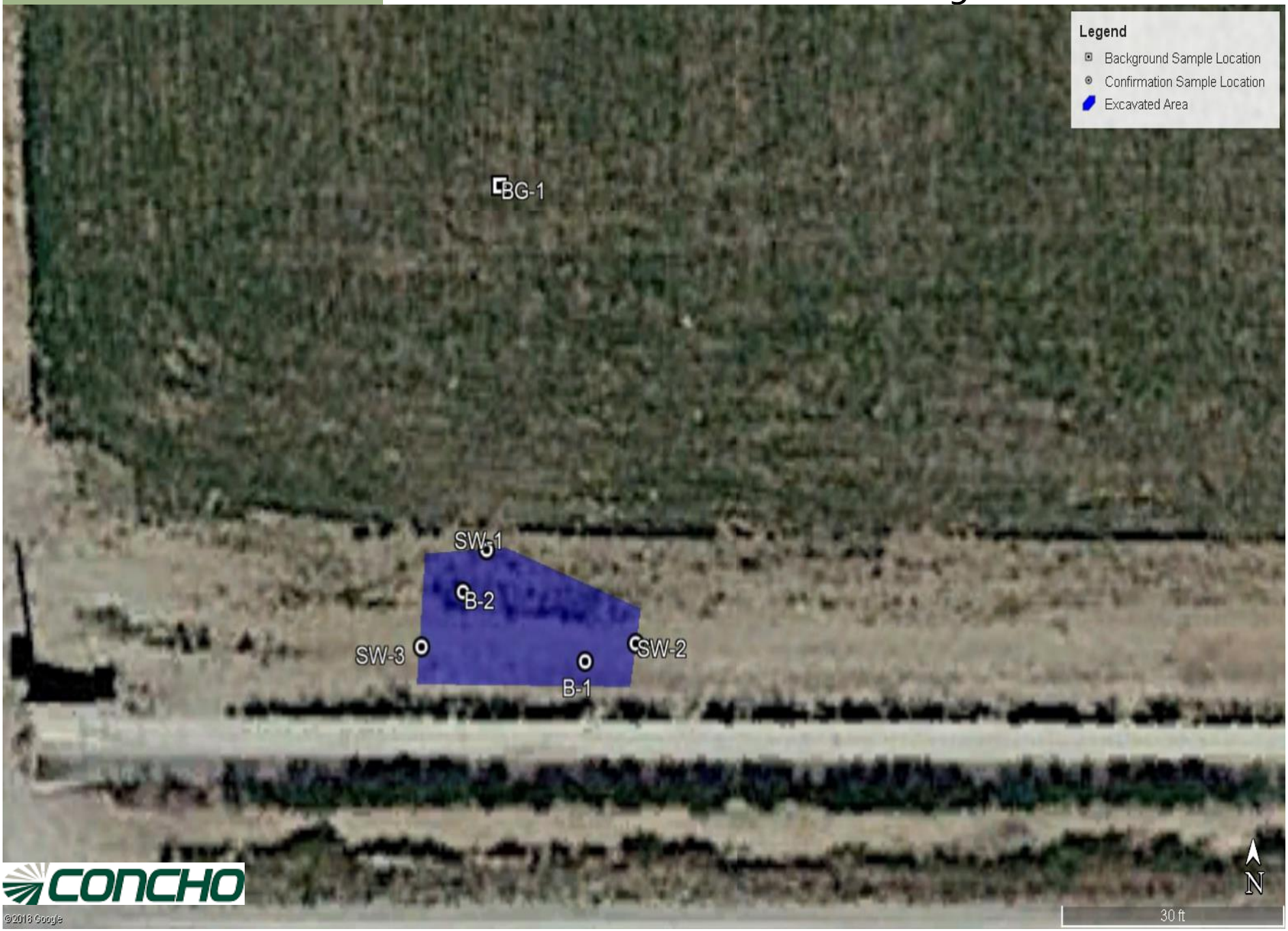
Sheldon Hitchcock

Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

FIGURES

September 21, 2019

Bar W Fee #005



TABLES

Table 1
COG Operating LLC.
Bar W Fee #005
Eddy County, New Mexico

Sample ID	Sample Depth (ft)	Sample Date	Soil Status		TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	*Total*	GRO	DRO	*Total*			
NMOCD RRAL Limits (mg/kg)					**-**	**-**	**-**	**2,500**	**-**	**-**	**1,000**	**10**	**50**	**20,000**
BG-1	5	10/11/2019	X		#	#	#	#	#	#	#	#	#	288
BTTM-1	5	10/7/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	277
SW-1	N/A	10/7/2019		X	<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	8,260
BTTM-2	4	10/11/2019		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	928
SW-1	N/A	10/11/2019	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	560
SW-2	N/A	10/11/2019	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	624
SW-3	N/A	10/11/2019	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	672
BTTTM-2	5	10/16/2019	X		#	#	#	#	#	#	#	#	#	233

(#) Not Analyzed

APPENDIX A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible 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		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

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 not 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: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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:_____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

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

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	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00744		CUB	ED	3	3	4	10	22S	27E	577437	3585166*	319	175		
C 00160		C	ED	2	3	3	10	22S	27E	576826	3585355*	320	85	40	45
C 00160 CLW198701	O	C	ED	2	3	3	10	22S	27E	576826	3585355*	320			
C 00284		C	ED		2	1	15	22S	27E	577134	3584856*	405	130	20	110
C 00576 S		CUB	ED	2	4	1	15	22S	27E	577235	3584550	718	172	48	124
C 00576		CUB	ED	3	1	1	15	22S	27E	576628	3584749*	718	119	184	-65
C 00021 A		CUB	ED	4	4	4	09	22S	27E	576421	3585150*	719	196	40	156
C 00021 CLW193276	O	CUB	ED	4	4	4	09	22S	27E	576421	3585150*	719	100		

Average Depth to Water: **66 feet**
Minimum Depth: **20 feet**
Maximum Depth: **184 feet**

Record Count: 8

Basin/County Search:

County: Eddy

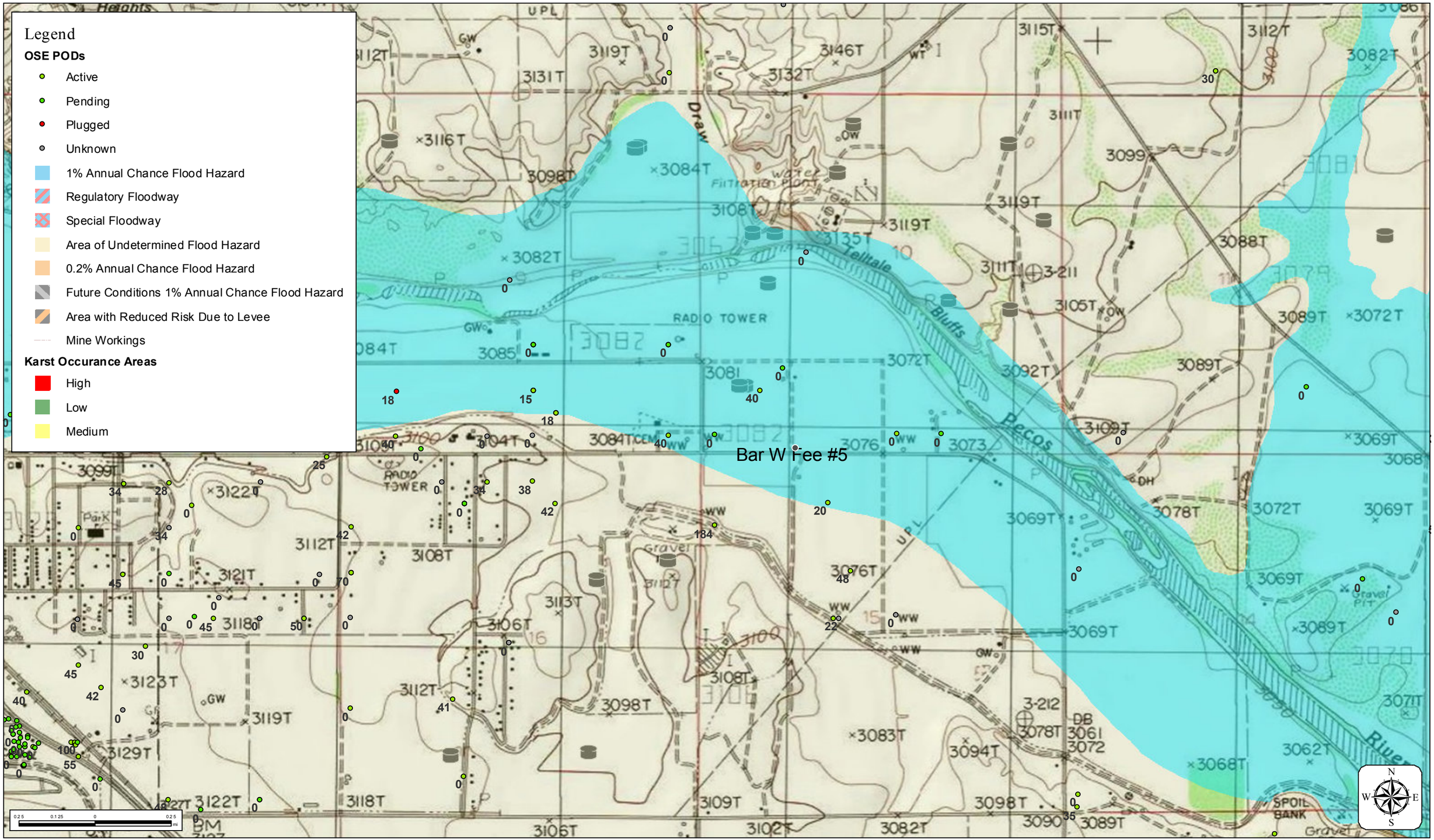
UTMNAD83 Radius Search (in meters):

Easting (X): 577132 **Northing (Y):** 3585261 **Radius:** 804

***UTM location was derived from PLSS - see Help**

CONCHO

ArcGIS Web Map



APPENDIX C

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 15, 2019

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: BAR W FEE #5

Enclosed are the results of analyses for samples received by the laboratory on 10/14/19 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/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. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/15/2019	Sampling Type:	Soil
Project Name:	BAR W FEE #5	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: BG - 1 5' (H903477-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288**	16.0	10/15/2019	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Page _____ of _____

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG-Artesia	Site Manager: Sheldon Hitchcock
Project Name: Bar W Fee #5	
Project Location: (county, state) Eddy, NM	Project #:
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: cardinal	Sampler Name: Sheldon Hitchcock
Comments: Rush	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
H903477		YEAR: 2019												
1	BG-1 5'	10/11	12:30		X			X	1	G			X	

ANALYSIS REQUEST (Circle or Specify Method No.)

Relinquished by:	Date:	Time:	Received by: Date: Time: Tamara Oldaker 10-14-19 0940
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY

Sample Temperature 4.8°C #97 Corrected 5.2°C

REMARKS:

- ☒ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Certificate of Analysis Summary 639397

COG Operating LLC, Artesia, NM

Project Name: Bar W Fee

Project Id:

Contact: Sheldon Hitchcock

Project Location: Eddy,NM

Date Received in Lab: Tue Oct-08-19 03:22 pm

Report Date: 11-OCT-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	639397-001		639397-002									
	Field Id:	Bttm-1		SW-1									
	Depth:												
	Matrix:	SOIL		SOIL									
	Sampled:	Oct-07-19 11:00		Oct-07-19 11:05									
BTEX by EPA 8021B	***Extracted:***	Oct-09-19 13:00		Oct-09-19 13:00									
SUB: T104704400-19-19	***Analyzed:***	Oct-10-19 16:59		Oct-10-19 17:19									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.00200	0.00200	<0.00201	0.00201								
Toluene		<0.00200	0.00200	<0.00201	0.00201								
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201								
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402								
o-Xylene		<0.00200	0.00200	<0.00201	0.00201								
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201								
Total BTEX		<0.00200	0.00200	<0.00201	0.00201								
Chloride by EPA 300	***Extracted:***	Oct-09-19 12:15		Oct-09-19 12:15									
SUB: T104704400-19-19	***Analyzed:***	Oct-09-19 15:41		Oct-09-19 15:57									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		277	5.04	8260	49.6								
TPH By SW8015 Mod	***Extracted:***	Oct-09-19 17:00		Oct-09-19 17:00									
SUB: T104704400-19-19	***Analyzed:***	Oct-10-19 03:54		Oct-10-19 04:15									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons		<49.9	49.9	<49.9	49.9								
Diesel Range Organics		<49.9	49.9	<49.9	49.9								
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9								
Total TPH		<49.9	49.9	<49.9	49.9								

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

Version: 1.%

Jessica Kramer
Project Assistant

Analytical Report 639397

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Bar W Fee

11-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11-OCT-19

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **639397**
Bar W Fee
Project Address: Eddy,NM

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 639397. 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 XENCO Laboratories. 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. 639397 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 639397

COG Operating LLC, Artesia, NM

Bar W Fee

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bttm-1	S	10-07-19 11:00		639397-001
SW-1	S	10-07-19 11:05		639397-002

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Bar W Fee

Project ID:
Work Order Number(s): *639397*

Report Date: *11-OCT-19*
Date Received: *10/08/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103920 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 639397

COG Operating LLC, Artesia, NM

Bar W Fee

Sample Id:	**Bttm-1**	Matrix:	Soil	Date Received:	10.08.19 15.22
Lab Sample Id:	639397-001	Date Collected:	10.07.19 11.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.09.19 12.15	Basis:	Wet Weight
Seq Number:	3103861			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**277**	5.04	mg/kg	10.09.19 15.41		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	10.10.19 03.54	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	10.10.19 03.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.10.19 03.54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.10.19 03.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.10.19 03.54	
o-Terphenyl	84-15-1	114	%	70-135	10.10.19 03.54	

Certificate of Analytical Results 639397

COG Operating LLC, Artesia, NM

Bar W Fee

Sample Id:	**Bttm-1**	Matrix:	Soil	Date Received:	10.08.19 15.22
Lab Sample Id:	639397-001	Date Collected:	10.07.19 11.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.09.19 13.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.10.19 16.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.19 16.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.10.19 16.59	
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.10.19 16.59	

Certificate of Analytical Results 639397

COG Operating LLC, Artesia, NM

Bar W Fee

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	10.08.19 15.22
Lab Sample Id:	639397-002	Date Collected:	10.07.19 11.05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.09.19 12.15	Basis:	Wet Weight
Seq Number:	3103861			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8260**	49.6	mg/kg	10.09.19 15.57		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	10.10.19 04.15	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	10.10.19 04.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.10.19 04.15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.10.19 04.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.10.19 04.15	
o-Terphenyl	84-15-1	114	%	70-135	10.10.19 04.15	

Certificate of Analytical Results 639397

COG Operating LLC, Artesia, NM

Bar W Fee

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	10.08.19 15.22
Lab Sample Id:	639397-002	Date Collected:	10.07.19 11.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.09.19 13.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.10.19 17.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.10.19 17.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.10.19 17.19	
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.10.19 17.19	

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.

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

QC Summary 639397

COG Operating LLC

Bar W Fee

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103861 — Matrix: Solid — Date Prep: 10.09.19
MB Sample Id: 7687761-1-BLK — LCS Sample Id: 7687761-1-BKS — LCSD Sample Id: 7687761-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	236	94	236	94	90-110	0	20	mg/kg	10.09.19 15:30	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103861 — Matrix: Soil — Date Prep: 10.09.19
Parent Sample Id: 639113-001 — MS Sample Id: 639113-001 S — MSD Sample Id: 639113-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	187	250	431	98	430	97	90-110	0	20	mg/kg	10.09.19 17:00	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103861 — Matrix: Soil — Date Prep: 10.09.19
Parent Sample Id: 639397-001 — MS Sample Id: 639397-001 S — MSD Sample Id: 639397-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	277	252	525	98	503	90	90-110	4	20	mg/kg	10.09.19 15:46	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Solid — Date Prep: 10.09.19
MB Sample Id: 7687818-1-BLK — LCS Sample Id: 7687818-1-BKS — LCSD Sample Id: 7687818-1-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	<15.0	1000	1160	116	1190	119	70-135	3	20	mg/kg	10.09.19 21:59	
Diesel Range Organics	<15.0	1000	1200	120	1180	118	70-135	2	20	mg/kg	10.09.19 21:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		111		107		70-135	%	10.09.19 21:59
o-Terphenyl	106		116		108		70-135	%	10.09.19 21:59

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Solid — Date Prep: 10.09.19
MB Sample Id: 7687818-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.09.19 21:39	

MS/MSD Percent Recovery [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 639397

COG Operating LLC

Bar W Fee

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Soil — Date Prep: 10.09.19
Parent Sample Id: 639278-001 — MS Sample Id: 639278-001 S — MSD Sample Id: 639278-001 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	<15.0	999	1100	110	1130	113	70-135	3	20	mg/kg	10.09.19 23:02	
Diesel Range Organics	<15.0	999	1130	113	1150	115	70-135	2	20	mg/kg	10.09.19 23:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		106		70-135	%	10.09.19 23:02
o-Terphenyl	104		109		70-135	%	10.09.19 23:02

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3103920 — Matrix: Solid — Date Prep: 10.08.19
MB Sample Id: 7687715-1-BLK — LCS Sample Id: 7687715-1-BKS — LCSD Sample Id: 7687715-1-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	0.102	102	0.104	104	70-130	2	35	mg/kg	10.10.19 14:10	
Toluene	<0.00200	0.100	0.0967	97	0.100	100	70-130	3	35	mg/kg	10.10.19 14:10	
Ethylbenzene	<0.00200	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	10.10.19 14:10	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.212	106	70-130	5	35	mg/kg	10.10.19 14:10	
o-Xylene	<0.00200	0.100	0.104	104	0.111	111	70-130	7	35	mg/kg	10.10.19 14:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		92		92		70-130	%	10.10.19 14:10
4-Bromofluorobenzene	99		102		107		70-130	%	10.10.19 14:10

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3103920 — Matrix: Soil — Date Prep: 10.08.19
Parent Sample Id: 639278-001 — MS Sample Id: 639278-001 S — MSD Sample Id: 639278-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0938	95	0.0691	69	70-130	30	35	mg/kg	10.10.19 14:50	X
Toluene	<0.00198	0.0992	0.0821	83	0.0598	60	70-130	31	35	mg/kg	10.10.19 14:50	X
Ethylbenzene	<0.00198	0.0992	0.0769	78	0.0498	50	70-130	43	35	mg/kg	10.10.19 14:50	XF
m,p-Xylenes	<0.00397	0.198	0.149	75	0.0947	47	70-130	45	35	mg/kg	10.10.19 14:50	XF
o-Xylene	<0.00198	0.0992	0.0809	82	0.0553	55	70-130	38	35	mg/kg	10.10.19 14:50	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		84		70-130	%	10.10.19 14:50
4-Bromofluorobenzene	107		106		70-130	%	10.10.19 14:50

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Analysis Request of Chain of Custody Record

Page 1 of 1

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

639397

Client Name: COG-Artesia

Site Manager: Sheldon Hitchcock

Project Name: Bar W Fee

Project Location: (county, state) Eddy, NM

Project #:

Invoice to: Sheldon Hitchcock

Receiving Laboratory: Xenco

Sampler Name: Sheldon Hitchcock

Comments: Rush

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	Bttm-1	10/7	11:00		X			X	1	C	X	X	X	
	SW-1	10/7	11:05		X			X	1	C	X	X	X	

Year: 2019

Relinquished by: Sheldon Hitchcock Date: 10/8/19 Time: 15:22
Received by: Courtney Date: 10/8/19 Time: 15:22

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

ORIGINAL COPY

LAB USE ONLY

Sample Temperature: 2.8°C

REMARKS:

☒ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Inter-Office Shipment

IOS Number **49711**

Date/Time: 10/08/19 17:51
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
639397-001	S	Bttm-1	10/07/19 11:00	SW8015MOD_NM	TPH By SW8015 Mod	10/09/19	10/21/19	JKR	PHCC10C28 PHCC28C35	
639397-001	S	Bttm-1	10/07/19 11:00	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639397-001	S	Bttm-1	10/07/19 11:00	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639397-002	S	SW-1	10/07/19 11:05	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639397-002	S	SW-1	10/07/19 11:05	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639397-002	S	SW-1	10/07/19 11:05	SW8015MOD_NM	TPH By SW8015 Mod	10/09/19	10/21/19	JKR	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 10/08/2019

Received By: Brianna Teel

Date Received: 10/09/2019 10:10

Cooler Temperature: 4.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 49711

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 10/08/2019 05:51 PM

Received By: Brianna Teel **Date Received:** 10/09/2019 10:10 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 10/09/2019

Brianna Teel

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 15, 2019

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: BAR W FEE #5

Enclosed are the results of analyses for samples received by the laboratory on 10/14/19 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/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. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/15/2019	Sampling Type:	Soil
Project Name:	BAR W FEE #5	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: BTTM - 2 (H903476-01)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2019	ND	2.04	102	2.00	2.89	
Toluene*	<0.050	0.050	10/14/2019	ND	2.14	107	2.00	3.19	
Ethylbenzene*	<0.050	0.050	10/14/2019	ND	2.07	104	2.00	2.57	
Total Xylenes*	<0.150	0.150	10/14/2019	ND	6.23	104	6.00	2.68	
Total BTEX	<0.300	0.300	10/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**928**	16.0	10/15/2019	ND	416	104	400	3.77	

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	10/14/2019	ND	210	105	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/14/2019	ND	213	106	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	10/14/2019	ND					

Surrogate: 1-Chlorooctane *91.8 %* *41-142*

Surrogate: 1-Chlorooctadecane *90.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/15/2019	Sampling Type:	Soil
Project Name:	BAR W FEE #5	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SW - 1 (H903476-02)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2019	ND	2.04	102	2.00	2.89	
Toluene*	<0.050	0.050	10/14/2019	ND	2.14	107	2.00	3.19	
Ethylbenzene*	<0.050	0.050	10/14/2019	ND	2.07	104	2.00	2.57	
Total Xylenes*	<0.150	0.150	10/14/2019	ND	6.23	104	6.00	2.68	
Total BTEX	<0.300	0.300	10/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	10/15/2019	ND	416	104	400	3.77	

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	10/14/2019	ND	210	105	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/14/2019	ND	213	106	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	10/14/2019	ND					

Surrogate: 1-Chlorooctane *120 %* *41-142*

Surrogate: 1-Chlorooctadecane *118 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/15/2019	Sampling Type:	Soil
Project Name:	BAR W FEE #5	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SW - 2 (H903476-03)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2019	ND	2.04	102	2.00	2.89	
Toluene*	<0.050	0.050	10/14/2019	ND	2.14	107	2.00	3.19	
Ethylbenzene*	<0.050	0.050	10/14/2019	ND	2.07	104	2.00	2.57	
Total Xylenes*	<0.150	0.150	10/14/2019	ND	6.23	104	6.00	2.68	
Total BTEX	<0.300	0.300	10/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**624**	16.0	10/15/2019	ND	416	104	400	3.77	

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	10/14/2019	ND	210	105	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/14/2019	ND	213	106	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	10/14/2019	ND					

Surrogate: 1-Chlorooctane *114 %* *41-142*

Surrogate: 1-Chlorooctadecane *113 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/15/2019	Sampling Type:	Soil
Project Name:	BAR W FEE #5	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: SW - 3 (H903476-04)

BTEX 8021B mg/kg Analyzed By: BF

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2019	ND	2.04	102	2.00	2.89	
Toluene*	<0.050	0.050	10/14/2019	ND	2.14	107	2.00	3.19	
Ethylbenzene*	<0.050	0.050	10/14/2019	ND	2.07	104	2.00	2.57	
Total Xylenes*	<0.150	0.150	10/14/2019	ND	6.23	104	6.00	2.68	
Total BTEX	<0.300	0.300	10/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	10/15/2019	ND	416	104	400	3.77	

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	10/14/2019	ND	210	105	200	2.10	
DRO >C10-C28*	<10.0	10.0	10/14/2019	ND	213	106	200	1.03	
EXT DRO >C28-C36	<10.0	10.0	10/14/2019	ND					

Surrogate: 1-Chlorooctane *123 %* *41-142*

Surrogate: 1-Chlorooctadecane *121 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Page 1 of 1

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG-Artesia

Site Manager: Sheldon Hitchcock

Project Name: Bar W Fee #5

Project Location: (county, state) Eddy, NM

Project #:

Invoice to: Sheldon Hitchcock

Receiving Laboratory: Cardinal

Sampler Name: Sheldon Hitchcock

Comments: Rush

H90347 LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2019)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
1	B+tm - 2	10/11	12:00		X			X	1	C	X	X	X	
2	SW-1		12:05		X			X	1	C	X	X	X	
3	SW-2		12:10		X			X	1	C	X	X	X	
4	SW-3		12:15		X			X	1	C	X	X	X	

ANALYSIS REQUEST (Circle or Specify Method No.)

Relinquished by: Sheldon Hitchcock Date: Time:

Received by: Tamara Oldaker 10-14-19 9:40 AM Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 4.8°C #97 Corrected 5.2°C

REMARKS:

X RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Certificate of Analysis Summary 640122

COG Operating LLC, Artesia, NM

Project Name: Bar W Fee #5

Project Id:

Contact: Sheldon Hitchcock

Project Location: Eddy,NM

Date Received in Lab: Wed Oct-16-19 10:23 am

Report Date: 16-OCT-19

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	640122-001					
	Field Id:	BTTM-2					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Oct-16-19 09:15					
Chloride by EPA 300	***Extracted:***	Oct-16-19 14:10					
	Analyzed:	Oct-16-19 14:46					
	Units/RL:	mg/kg	RL				
Chloride		233	50.2				

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

Version: 1.%

Jessica Kramer
Project Assistant

Analytical Report 640122

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Bar W Fee #5

16-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

16-OCT-19

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **640122**
Bar W Fee #5
Project Address: Eddy,NM

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640122. 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 XENCO Laboratories. 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. 640122 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 640122

COG Operating LLC, Artesia, NM

Bar W Fee #5

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BTTM-2	S	10-16-19 09:15		640122-001

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Bar W Fee #5

Project ID:
Work Order Number(s): *640122*

Report Date: *16-OCT-19*
Date Received: *10/16/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104507 Chloride by EPA 300
Lab Sample ID 640122-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640122-001.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 640122

COG Operating LLC, Artesia, NM

Bar W Fee #5

Sample Id:	**BTTM-2**	Matrix:	Soil	Date Received:	10.16.19 10.23
Lab Sample Id:	640122-001	Date Collected:	10.16.19 09.15		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 14.10	Basis:	Wet Weight
Seq Number:	3104507				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**233**	50.2	mg/kg	10.16.19 14.46		5

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.

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

QC Summary 640122

COG Operating LLC

Bar W Fee #5

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3104507 Matrix: Solid Date Prep: 10.16.19
MB Sample Id: 7688273-1-BLK LCS Sample Id: 7688273-1-BKS LCSD Sample Id: 7688273-1-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	262	105	262	105	90-110	0	20	mg/kg	10.16.19 14:31	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3104507 Matrix: Soil Date Prep: 10.16.19
Parent Sample Id: 640122-001 MS Sample Id: 640122-001 S MSD Sample Id: 640122-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	233	1000	1350	112	1300	107	90-110	4	20	mg/kg	10.16.19 14:53	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

1040122

Analysis Request of Chain of Custody Record

Page 1 of 1

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG-Artesia	**Site Manager:** Sheldon Hitchcock
Project Name: Bar W Fee #5	
Project Location: (county, state) Eddy, NM	**Project #:**
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: Xenco	**Sampler Name:** Sheldon Hitchcock
Comments: Rush	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	Bttm-2	10/16	9:15		X			X	1	C			X	

ANALYSIS REQUEST
(Circle or Specify Method No.)

Relinquished by: Date: 10/16/19 Time: 10:23
Received by: Date: 10/16/19 Time: 10:23

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature: 5.6

REMARKS:

- [X] RUSH: Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 10/16/2019 10:23:00 AM

Work Order #: 640122

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)?	5.6
#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)?	**No**
#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: Elizabeth McClellan Date: 10/16/2019

Checklist reviewed by: Jessica Kramer Date: 10/16/2019

Jessica Kramer

APPENDIX D

SW W NW
10 240 270 300 330

280°W (T) 32.401078°, -104.178164° ±32ft ▲ 3076ft

CONCHO COG Operating LLC

BAR W FEE #5
330' FSL & 2310' FWL
SEC. 10, T22S, R27E
EDDY COUNTY, NEW MEXICO
API #30-015-34047

19 Dec 2019, 15:48:57


SW
W
NW
210
240
270
300
330
264°W (T)
32°24.018', -104°10.877' ±16ft
3083ft
09 Oct 2019, 07:48:01