CONCHO

September 8, 2020

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

Bureau of Land Management, CFO
620 E. Green St.
Carlsbad, NM 88220

Re: Closure Report
Azores Federal 002H (4.18.20)
Tracking#: NRM2012235693
GPS: 32.181495, -103.69847
Unit Letter O, Section 29, Township 24 South, Range 32 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 Azores Federal #002H, located in Unit Letter O, Section 29, Township 24 South, Range 32 East Lea County, New Mexico. The spill site coordinates are 32.181495, -103.69847.

BACKGROUND

The release was discovered on April 18, 2020. An initial C-141 was submitted and accepted by the New Mexico Oil Conservation Division (NMOCD). The release was caused by internal flowline corrosion. The entirety of the release was on pad within an earthen berm. Approximately four (4) barrels of produced water and two (2) barrels of crude were released. The initial C-141 is attached in Appendix A.

GROUNDWATER AND REGULATORY

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within a one (1) Mile radius of the Release Site and identify any registered water wells within a 1/2 Mile of the Release Site. No water wells were found within a ½ mile of the Release site; therefore, COG remediated the site to the standards shown in Table I of 19.15.29.12 NMAC for an average depth to water of <50 feet.

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 affected area has low potential for cave and karst, and no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)	Water well within ½ Mile
Low Karst	>100 ft	Not found

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 ASSESMENT

- Prior to remediation, one (1) auger hole (AH-1) was installed to assess and evaluate the release area. The sample results are shown in Table 1. The samples indicated that the impacted area around AH-1 was impacted to a depth of approximately 1.0' to 1.5' below surface.

REMEDIAL ACTIONS

- Once excavated to the appropriate depth, confirmation samples were collected from the excavation bottom and sidewalls per NMAC 19.15.29.
- The impacted areas around L1 and L2 were excavated to a depth of approximately 1.5'to 2.0' below surface and the areas of L3 and L4 were both excavated to a depth of approximately 1.0'below surface.
- 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 shows that all confirmation samples meets NMOCD closure criteria (NMAC 19.15.29.12(E) Table I).

SAMPLING AND BACKFILLING

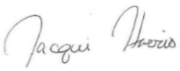
Once excavated, soil samples were collected from the bottom and sidewalls to confirm the removal of impacted soil. Composite bottom and sidewall samples were collected every 200 square feet to be representative of the release area. All samples were below Table 1 closure criterial levels. Once completed, the excavated area was backfilled with non-contaminated material with concentrations below 600 mg/kg of chlorides.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Azores Federal #002H that occurred on April 18, 2020 (Tracking # NRM2012235693). The final C-141 is attached in Appendix A.

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

Sincerely,



Jacqui Harris
Senior HSE Coordinator
Jharris2@concho.com

Maps

Azores Federal 2H

Site and Sample Map

Table of Analytical Data

Table 1
COG Operating LLC.
Azores Federal 2
Lea County, New Mexico

Sample ID	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*			
Average Depth to Groundwater (ft)		**>100' with no water well within 1/2 mile**											
NMOCD RRAL Limits (mg/kg)				**-**	**-**	**-**	**100**	**-**	**-**	**100**	**10**	**50**	**600**
Initial Assessment and Sampling													
AH-1 (0-1)	6/9/2020		X	892	3990	279	**5161.0**	892	3990	**4882.0**	0.0594	20.6	**15500**
AH-1 (1-1.5)	6/9/2020		X	<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.00198	0.0949	155
Confirmation Sampling													
L1 (1' bottom)	7/29/2020		X	<50.0	1220	123	**1340.0**	<50.0	1220	1220.0	<0.0172	0.5	24.6
L1 (1.5' botom)	7/29/2020		X	<50.0	529	67.2	**596.0**	<50.0	529	529.0	<0.00200	0.0624	20.5
L1 (2' bottom)	7/31/2020	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.00200	<0.00200	<10.0
L2 (2' bottom)	7/29/2020	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0	<0.00201	0.0999	250.0
L2 (2.5' bottom)	7/29/2020	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0	<0.00201	<0.00201	<9.92
L3 (6" bottom)	7/29/2020		X	<50.0	235	<50.0	**235.0**	<50.0	235	235.0	<0.00200	0.1	113.0
L3 (1' bottom)	7/29/2020	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0	<0.00200	0.1	<9.92
L4 (6" bottom)	7/29/2020		X	<50.0	348	<50.0	**348.0**	<50.0	348	348.0	<0.00990	0.0	113.0
L4 (1' bottom)	7/29/2020	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0	<0.00200	<0.00200	45.7
SW1	7/31/2020	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.00199	<0.00199	<9.96
SW2	7/31/2020	X		<49.9	<49.9	<49.9	0.0	<49.9	<49.9	0.0	<0.00200	<0.00200	<9.98

(-) Not Analyzed

Soil Excavated and Removed

PHOTOS

Open Excavation

Backfilled

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		

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 State of New Mexico
Page 4 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: Jacqui Harris _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: Jacqui Harris _____ 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: _____

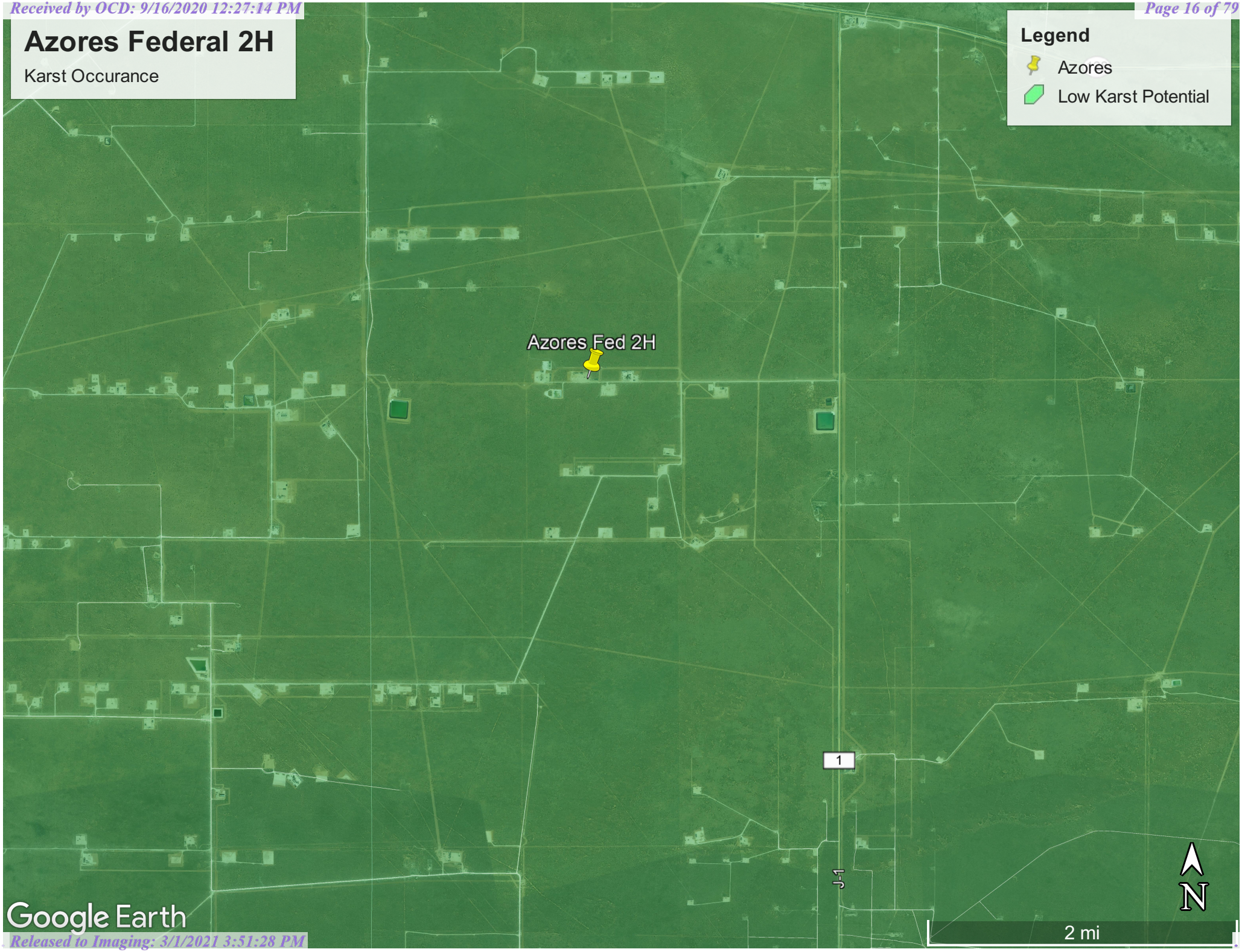
Printed Name: _____ Title: _____

Appendix B

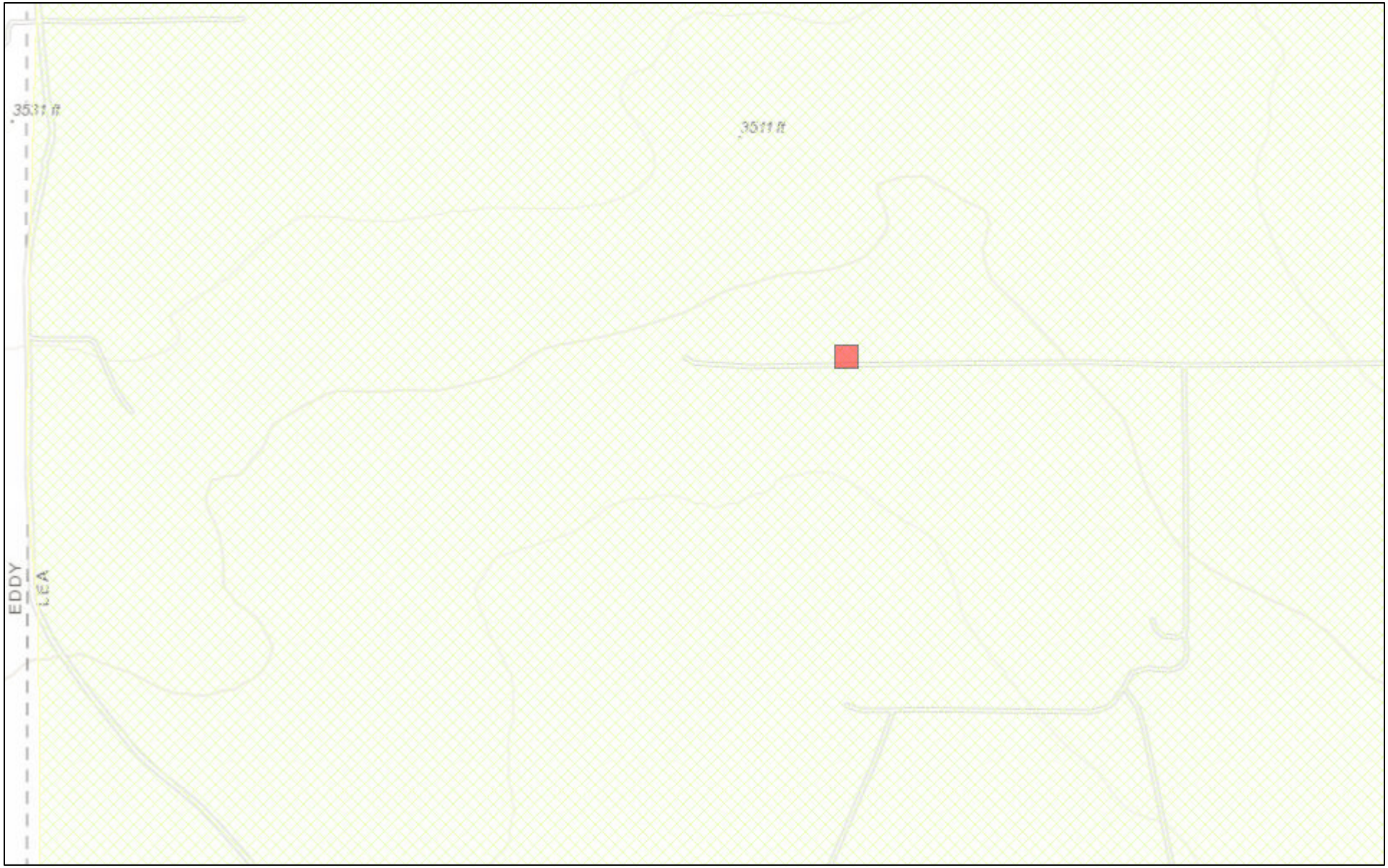
Site Assessment Data

Azores Federal 2H

Karst Occurance



New Mexico NFHL Data



September 8, 2020

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321005103402301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

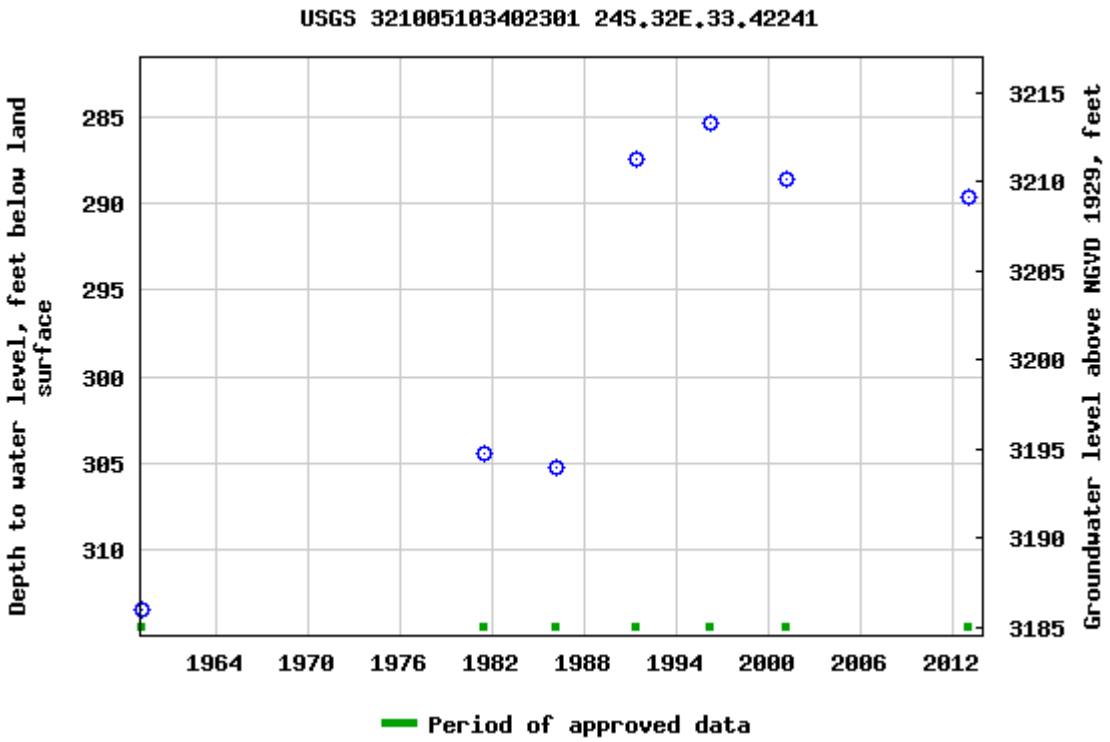
USGS 321005103402301 24S.32E.33.42241

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83
Land-surface elevation 3,499.00 feet above NGVD29
The depth of the well is 367 feet below land surface.
This well is completed in the Chinle Formation (231CHNL) 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.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2020-06-19 15:26:36 EDT
0.67 0.57 nadww01

Appendix C

Analytical Data

Certificate of Analysis Summary 664333

COG Operating, LLC, Midland, TX

Project Name: Azores Federal 2H (4/18/20_

Project Id:

Contact: Ike Tavarez

Project Location: Lea County NM

Date Received in Lab: Fri 06.12.2020 14:05

Report Date: 06.19.2020 14:22

Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	664333-001		664333-002					
	Field Id:	AH-1 (0-1)		AH-1 (1-1.5)					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	06.09.2020 00:00		06.09.2020 00:00					
BTEX by EPA 8021B	***Extracted:***	06.18.2020 15:00		06.18.2020 15:00					
	Analyzed:	06.19.2020 03:22		06.19.2020 01:20					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		0.0594	0.0400	<0.00198	0.00198				
Toluene		2.58	0.0400	0.0138	0.00198				
Ethylbenzene		4.44	0.0400	0.0194	0.00198				
m,p-Xylenes		8.80	0.0800	0.0404	0.00397				
o-Xylene		4.75	0.0400	0.0213	0.00198				
Total Xylenes		13.6	0.0400	0.0617	0.00198				
Total BTEX		20.6	0.0400	0.0949	0.00198				
Chloride by EPA 300	***Extracted:***	06.12.2020 16:15		06.12.2020 16:15					
	Analyzed:	06.13.2020 02:07		06.13.2020 02:12					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		15500	100	155	5.00				
TPH By SW8015 Mod	***Extracted:***	06.12.2020 17:00		06.12.2020 17:00					
	Analyzed:	06.13.2020 04:51		06.13.2020 05:10					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		892	49.9	<50.0	50.0				
Diesel Range Organics		3990	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		279	49.9	<50.0	50.0				
Total TPH		5160	49.9	<50.0	50.0				

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

Jessica Kramer
Project Manager

Analytical Report 664333

for

COG Operating, LLC

Project Manager: Ike Tavarez

Azores Federal 2H (4/18/20_

06.19.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.19.2020

Project Manager: **Ike Tavarez**
COG Operating, LLC
600 W Illinois
Midland, TX 79701

Reference: XENCO Report No(s): **664333**
Azores Federal 2H (4/18/20_
Project Address: Lea County NM

Ike Tavarez:

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) 664333. 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. 664333 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 664333

COG Operating, LLC, Midland, TX

Azores Federal 2H (4/18/20_

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH-1 (0-1)	S	06.09.2020 00:00		664333-001
AH-1 (1-1.5)	S	06.09.2020 00:00		664333-002

CASE NARRATIVE

Client Name: COG Operating, LLC

Project Name: Azores Federal 2H (4/18/20_

Project ID:
Work Order Number(s): *664333*

Report Date: *06.19.2020*
Date Received: *06.12.2020*

Sample receipt non conformances and comments:

V1.001 Revision - O-xylenes missing from original version JK 06/19/2020

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3128926 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 664333-001.

Batch: LBA-3129395 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 664333-001.

Certificate of Analytical Results 664333

COG Operating, LLC, Midland, TX

Azores Federal 2H (4/18/20_

Sample Id:	**AH-1 (0-1)**	Matrix:	Soil	Date Received:	06.12.2020 14:05
Lab Sample Id:	664333-001	Date Collected:	06.09.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.12.2020 16:15	Basis:	Wet Weight
Seq Number:	3128895				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15500**	100	mg/kg	06.13.2020 02:07		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3128926				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	**892**	49.9	mg/kg	06.13.2020 04:51		1
Diesel Range Organics	C10C28DRO	**3990**	49.9	mg/kg	06.13.2020 04:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**279**	49.9	mg/kg	06.13.2020 04:51		1
Total TPH	PHC635	**5160**	49.9	mg/kg	06.13.2020 04:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	06.13.2020 04:51	
o-Terphenyl	84-15-1	186	%	70-130	06.13.2020 04:51	**

Certificate of Analytical Results 664333

COG Operating, LLC, Midland, TX

Azores Federal 2H (4/18/20_

Sample Id:	**AH-1 (0-1)**	Matrix:	Soil	Date Received:	06.12.2020 14:05
Lab Sample Id:	664333-001	Date Collected:	06.09.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 15:00	Basis:	Wet Weight
Seq Number:	3129395				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0594**	0.0400	mg/kg	06.19.2020 03:22		20
Toluene	108-88-3	**2.58**	0.0400	mg/kg	06.19.2020 03:22		20
Ethylbenzene	100-41-4	**4.44**	0.0400	mg/kg	06.19.2020 03:22		20
m,p-Xylenes	179601-23-1	**8.80**	0.0800	mg/kg	06.19.2020 03:22		20
o-Xylene	95-47-6	**4.75**	0.0400	mg/kg	06.19.2020 03:22		20
Total Xylenes	1330-20-7	**13.6**	0.0400	mg/kg	06.19.2020 03:22		20
Total BTEX		**20.6**	0.0400	mg/kg	06.19.2020 03:22		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	400	%	70-130	06.19.2020 03:22	**

Certificate of Analytical Results 664333

COG Operating, LLC, Midland, TX

Azores Federal 2H (4/18/20_

Sample Id:	**AH-1 (1-1.5)**	Matrix:	Soil	Date Received:	06.12.2020 14:05
Lab Sample Id:	664333-002	Date Collected:	06.09.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.12.2020 16:15	Basis:	Wet Weight
Seq Number:	3128895				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**155**	5.00	mg/kg	06.13.2020 02:12		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.2020 17:00	Basis:	Wet Weight
Seq Number:	3128926				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	06.13.2020 05:10	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	06.13.2020 05:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.13.2020 05:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.13.2020 05:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	06.13.2020 05:10	
o-Terphenyl	84-15-1	106	%	70-130	06.13.2020 05:10	

Certificate of Analytical Results 664333

COG Operating, LLC, Midland, TX

Azores Federal 2H (4/18/20_

Sample Id:	**AH-1 (1-1.5)**	Matrix:	Soil	Date Received:	06.12.2020 14:05
Lab Sample Id:	664333-002	Date Collected:	06.09.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 15:00	Basis:	Wet Weight
Seq Number:	3129395				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.19.2020 01:20	U	1
Toluene	108-88-3	**0.0138**	0.00198	mg/kg	06.19.2020 01:20		1
Ethylbenzene	100-41-4	**0.0194**	0.00198	mg/kg	06.19.2020 01:20		1
m,p-Xylenes	179601-23-1	**0.0404**	0.00397	mg/kg	06.19.2020 01:20		1
o-Xylene	95-47-6	**0.0213**	0.00198	mg/kg	06.19.2020 01:20		1
Total Xylenes	1330-20-7	**0.0617**	0.00198	mg/kg	06.19.2020 01:20		1
Total BTEX		**0.0949**	0.00198	mg/kg	06.19.2020 01:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	06.19.2020 01:20	

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

QC Summary 664333

COG Operating, LLC

Azores Federal 2H (4/18/20_

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128895 — Matrix: Solid — Date Prep: 06.12.2020
MB Sample Id: 7705369-1-BLK — LCS Sample Id: 7705369-1-BKS — LCSD Sample Id: 7705369-1-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	240	96	231	92	90-110	4	20	mg/kg	06.13.2020 00:00	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128895 — Matrix: Soil — Date Prep: 06.12.2020
Parent Sample Id: 664315-076 — MS Sample Id: 664315-076 S — MSD Sample Id: 664315-076 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.6	248	255	97	256	98	90-110	0	20	mg/kg	06.13.2020 00:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128895 — Matrix: Soil — Date Prep: 06.12.2020
Parent Sample Id: 664315-086 — MS Sample Id: 664315-086 S — MSD Sample Id: 664315-086 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.1	248	256	98	256	98	90-110	0	20	mg/kg	06.13.2020 01:26	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128926 — Matrix: Solid — Date Prep: 06.12.2020
MB Sample Id: 7705407-1-BLK — LCS Sample Id: 7705407-1-BKS — LCSD Sample Id: 7705407-1-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	977	98	1140	114	70-130	15	20	mg/kg	06.13.2020 02:43	
Diesel Range Organics	<50.0	1000	951	95	1090	109	70-130	14	20	mg/kg	06.13.2020 02:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		125		130		70-130	%	06.13.2020 02:43
o-Terphenyl	110		114		127		70-130	%	06.13.2020 02:43

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128926 — Matrix: Solid — Date Prep: 06.12.2020
MB Sample Id: 7705407-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.13.2020 02:24	

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 664333

COG Operating, LLC

Azores Federal 2H (4/18/20_

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3128926 Matrix: Soil Date Prep: 06.12.2020
Parent Sample Id: 664315-081 MS Sample Id: 664315-081 S MSD Sample Id: 664315-081 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	<49.9	998	990	99	995	100	70-130	1	20	mg/kg	06.13.2020 03:38	
Diesel Range Organics	<49.9	998	996	100	1000	100	70-130	0	20	mg/kg	06.13.2020 03:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		120		70-130	%	06.13.2020 03:38
o-Terphenyl	104		105		70-130	%	06.13.2020 03:38

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129395 Matrix: Solid Date Prep: 06.18.2020
MB Sample Id: 7705768-1-BLK LCS Sample Id: 7705768-1-BKS LCSD Sample Id: 7705768-1-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	0.100	100	0.103	103	70-130	3	35	mg/kg	06.18.2020 22:15	
Toluene	<0.00200	0.100	0.0978	98	0.0965	97	70-130	1	35	mg/kg	06.18.2020 22:15	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.100	100	70-130	3	35	mg/kg	06.18.2020 22:15	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.198	99	70-130	3	35	mg/kg	06.18.2020 22:15	
o-Xylene	<0.00200	0.100	0.0980	98	0.101	101	70-130	3	35	mg/kg	06.18.2020 22:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	105		100		100		70-130	%	06.18.2020 22:15

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129395 Matrix: Soil Date Prep: 06.18.2020
Parent Sample Id: 664315-078 MS Sample Id: 664315-078 S MSD Sample Id: 664315-078 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	0.0832	84	0.0874	87	70-130	5	35	mg/kg	06.18.2020 22:56	
Toluene	<0.00198	0.0992	0.0754	76	0.0820	82	70-130	8	35	mg/kg	06.18.2020 22:56	
Ethylbenzene	<0.00198	0.0992	0.0705	71	0.0817	82	70-130	15	35	mg/kg	06.18.2020 22:56	
m,p-Xylenes	<0.00397	0.198	0.136	69	0.158	79	70-130	15	35	mg/kg	06.18.2020 22:56	X
o-Xylene	<0.00198	0.0992	0.0723	73	0.0825	83	70-130	13	35	mg/kg	06.18.2020 22:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		102		70-130	%	06.18.2020 22:56

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

1064333

Page 1 of 1

CONCHO

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

Client Name: COG

Site Manager: Ike Tavarez

Project Name: Azores Federal 2H (4-18-20)

Project Location: (county, state) Lea county, NM.

Project #:

Invoice to: COG - Ike Tavarez

Receiving Laboratory: Xenco

Sampler Signature: Ike Tavarez

Comments:

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	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Sulfate	TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
	AH-1 (0-1)	6-9-20			X			X			X		X	X											X						
	AH-1 (1-1.5')	6-5-20			X			X			X		X	X											X						

Relinquished by: Date: 6/12/20 Time: 1405 Received by: Kramer Date: 6/12 Time: 1405

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

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

LAB USE ONLY

Sample Temperature -1.0 / -2.0

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating, LLC

Date/ Time Received: 06.12.2020 02.05.00 PM

Work Order #: 664333

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#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: Brianna Teel Date: 06.12.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06.12.2020
Jessica Kramer

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Certificate of Analysis Summary 668503

COG Operating LLC, Artesia, NM

Project Name: Azores Fed 2

Project Id:

Contact: Jacqui Harris

Project Location: Lea County, NM

Date Received in Lab: Wed 07.29.2020 11:15

Report Date: 07.30.2020 09:37

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	668503-001		668503-002		668503-003		668503-004		668503-005		668503-006	
	Field Id:	L1 @1'		L1 @1.5'		L2 @2'		L2 @2.5'		L3 @6"		L3 @1'	
	Depth:	1- ft		1.5- ft		2- ft		2.5- ft		6- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	07.29.2020 07:00		07.29.2020 07:03		07.29.2020 07:07		07.29.2020 07:10		07.29.2020 07:15		07.29.2020 07:18	
BTEX by EPA 8021B	***Extracted:***	07.29.2020 15:07		07.29.2020 15:07		07.29.2020 15:07		07.29.2020 15:07		07.29.2020 15:07		07.29.2020 15:07	
	Analyzed:	07.29.2020 15:39		07.29.2020 15:59		07.29.2020 16:19		07.29.2020 16:40		07.29.2020 17:00		07.29.2020 17:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0172	0.0172	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.0172	0.0172	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	0.00569	0.00200	<0.00200	0.00200
Ethylbenzene		0.0675	0.0172	0.0121	0.00200	0.00658	0.00201	<0.00201	0.00201	0.0151	0.00200	0.0152	0.00200
m,p-Xylenes		0.162	0.0345	0.0295	0.00399	0.0119	0.00402	<0.00402	0.00402	0.0596	0.00400	0.0104	0.00400
o-Xylene		0.223	0.0172	0.0208	0.00200	0.0814	0.00201	<0.00201	0.00201	0.0512	0.00200	0.0950	0.00200
Total Xylenes		0.385	0.0172	0.0503	0.00200	0.0933	0.00201	<0.00201	0.00201	0.111	0.00200	0.105	0.00200
Total BTEX		0.453	0.0172	0.0624	0.00200	0.0999	0.00201	<0.00201	0.00201	0.132	0.00200	0.121	0.00200
Chloride by EPA 300	***Extracted:***	07.29.2020 12:30		07.29.2020 12:30		07.29.2020 12:30		07.29.2020 12:30		07.29.2020 12:30		07.29.2020 12:30	
	Analyzed:	07.29.2020 13:13		07.29.2020 13:34		07.29.2020 13:41		07.29.2020 13:48		07.29.2020 13:55		07.29.2020 14:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		24.6	9.94	20.5	10.0	250	10.1	<9.92	9.92	113	9.98	<9.92	9.92
TPH By SW8015 Mod	***Extracted:***	07.29.2020 15:00		07.29.2020 15:00		07.29.2020 15:00		07.29.2020 15:00		07.29.2020 15:00		07.29.2020 15:00	
	Analyzed:	07.29.2020 15:17		07.29.2020 15:37		07.29.2020 15:57		07.29.2020 16:18		07.29.2020 16:38		07.29.2020 16:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0
Diesel Range Organics		1220	50.0	529	50.0	<50.0	50.0	<50.0	50.0	235	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		123	50.0	67.2	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0
Total TPH		1340	50.0	596	50.0	<50.0	50.0	<50.0	50.0	235	50.0	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 668503

COG Operating LLC, Artesia, NM

Project Name: Azores Fed 2

Project Id:

Contact: Jacqui Harris

Project Location: Lea County, NM

Date Received in Lab: Wed 07.29.2020 11:15

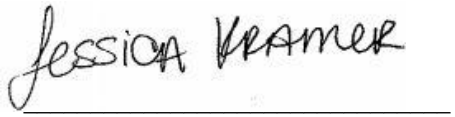
Report Date: 07.30.2020 09:37

Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	668503-007		668503-008					
	Field Id:	L4 @6"		L4 @1'					
	Depth:	6- ft		1- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	07.29.2020 07:22		07.29.2020 07:24					
BTEX by EPA 8021B	***Extracted:***	07.29.2020 15:07		07.29.2020 15:07					
	Analyzed:	07.29.2020 17:41		07.29.2020 15:18					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00990	0.00990	<0.00200	0.00200				
Toluene		<0.00990	0.00990	<0.00200	0.00200				
Ethylbenzene		<0.00990	0.00990	<0.00200	0.00200				
m,p-Xylenes		0.0210	0.0198	<0.00400	0.00400				
o-Xylene		0.0165	0.00990	<0.00200	0.00200				
Total Xylenes		0.0375	0.00990	<0.00200	0.00200				
Total BTEX		0.0375	0.00990	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	07.29.2020 12:30		07.29.2020 12:30					
	Analyzed:	07.29.2020 14:23		07.29.2020 14:30					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		113	9.96	45.7	10.0				
TPH By SW8015 Mod	***Extracted:***	07.29.2020 15:00		07.29.2020 13:00					
	Analyzed:	07.29.2020 17:20		07.29.2020 13:35					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		<50.0	50.0	<50.0	50.0				
Diesel Range Organics		348	50.0	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0				
Total TPH		348	50.0	<50.0	50.0				

BRL - Below Reporting Limit

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



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Analytical Report 668503

for

COG Operating LLC

Project Manager: Jacqui Harris

Azores Fed 2

07.30.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.30.2020

Project Manager: **Jacqui Harris**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **668503**
Azores Fed 2
Project Address: Lea County, NM

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) 668503. 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. 668503 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
L1 @1'	S	07.29.2020 07:00	1 ft	668503-001
L1 @1.5'	S	07.29.2020 07:03	1.5 ft	668503-002
L2 @2'	S	07.29.2020 07:07	2 ft	668503-003
L2 @2.5'	S	07.29.2020 07:10	2.5 ft	668503-004
L3 @6"	S	07.29.2020 07:15	6 ft	668503-005
L3 @1'	S	07.29.2020 07:18	1 ft	668503-006
L4 @6"	S	07.29.2020 07:22	6 ft	668503-007
L4 @1'	S	07.29.2020 07:24	1 ft	668503-008

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Azores Fed 2

Project ID:
Work Order Number(s): *668503*

Report Date: *07.30.2020*
Date Received: *07.29.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L1 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-001	Date Collected:	07.29.2020 07:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.6**	9.94	mg/kg	07.29.2020 13:13		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 15:17	U	1
Diesel Range Organics	C10C28DRO	**1220**	50.0	mg/kg	07.29.2020 15:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**123**	50.0	mg/kg	07.29.2020 15:17		1
Total TPH	PHC635	**1340**	50.0	mg/kg	07.29.2020 15:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	07.29.2020 15:17	
o-Terphenyl	84-15-1	109	%	70-135	07.29.2020 15:17	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L1 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-001	Date Collected:	07.29.2020 07:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0172	0.0172	mg/kg	07.29.2020 15:39	U	1
Toluene	108-88-3	<0.0172	0.0172	mg/kg	07.29.2020 15:39	U	1
Ethylbenzene	100-41-4	**0.0675**	0.0172	mg/kg	07.29.2020 15:39		1
m,p-Xylenes	179601-23-1	**0.162**	0.0345	mg/kg	07.29.2020 15:39		1
o-Xylene	95-47-6	**0.223**	0.0172	mg/kg	07.29.2020 15:39		1
Total Xylenes	1330-20-7	**0.385**	0.0172	mg/kg	07.29.2020 15:39		1
Total BTEX		**0.453**	0.0172	mg/kg	07.29.2020 15:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.29.2020 15:39	
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.29.2020 15:39	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L1 @1.5'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-002	Date Collected:	07.29.2020 07:03	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.5**	10.0	mg/kg	07.29.2020 13:34		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 15:37	U	1
Diesel Range Organics	C10C28DRO	**529**	50.0	mg/kg	07.29.2020 15:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**67.2**	50.0	mg/kg	07.29.2020 15:37		1
Total TPH	PHC635	**596**	50.0	mg/kg	07.29.2020 15:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	07.29.2020 15:37	
o-Terphenyl	84-15-1	107	%	70-135	07.29.2020 15:37	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L1 @1.5'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-002	Date Collected:	07.29.2020 07:03	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 15:59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.29.2020 15:59	U	1
Ethylbenzene	100-41-4	**0.0121**	0.00200	mg/kg	07.29.2020 15:59		1
m,p-Xylenes	179601-23-1	**0.0295**	0.00399	mg/kg	07.29.2020 15:59		1
o-Xylene	95-47-6	**0.0208**	0.00200	mg/kg	07.29.2020 15:59		1
Total Xylenes	1330-20-7	**0.0503**	0.00200	mg/kg	07.29.2020 15:59		1
Total BTEX		**0.0624**	0.00200	mg/kg	07.29.2020 15:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.29.2020 15:59	
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.29.2020 15:59	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L2 @2'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-003	Date Collected:	07.29.2020 07:07	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**250**	10.1	mg/kg	07.29.2020 13:41		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 15:57	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.29.2020 15:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 15:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.29.2020 15:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	07.29.2020 15:57	
o-Terphenyl	84-15-1	102	%	70-135	07.29.2020 15:57	

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COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L2 @2'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-003	Date Collected:	07.29.2020 07:07	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.29.2020 16:19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.29.2020 16:19	U	1
Ethylbenzene	100-41-4	**0.00658**	0.00201	mg/kg	07.29.2020 16:19		1
m,p-Xylenes	179601-23-1	**0.0119**	0.00402	mg/kg	07.29.2020 16:19		1
o-Xylene	95-47-6	**0.0814**	0.00201	mg/kg	07.29.2020 16:19		1
Total Xylenes	1330-20-7	**0.0933**	0.00201	mg/kg	07.29.2020 16:19		1
Total BTEX		**0.0999**	0.00201	mg/kg	07.29.2020 16:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.29.2020 16:19	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.29.2020 16:19	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L2 @2.5'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-004	Date Collected:	07.29.2020 07:10	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	07.29.2020 13:48	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 16:18	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.29.2020 16:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 16:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.29.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.29.2020 16:18	
o-Terphenyl	84-15-1	98	%	70-135	07.29.2020 16:18	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L2 @2.5'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-004	Date Collected:	07.29.2020 07:10	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.29.2020 16:40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.29.2020 16:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.29.2020 16:40	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.29.2020 16:40	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L3 @6"**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-005	Date Collected:	07.29.2020 07:15	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	9.98	mg/kg	07.29.2020 13:55		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 16:38	U	1
Diesel Range Organics	C10C28DRO	**235**	50.0	mg/kg	07.29.2020 16:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 16:38	U	1
Total TPH	PHC635	**235**	50.0	mg/kg	07.29.2020 16:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	07.29.2020 16:38	
o-Terphenyl	84-15-1	99	%	70-135	07.29.2020 16:38	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L3 @6"**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-005	Date Collected:	07.29.2020 07:15	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 17:00	U	1
Toluene	108-88-3	**0.00569**	0.00200	mg/kg	07.29.2020 17:00		1
Ethylbenzene	100-41-4	**0.0151**	0.00200	mg/kg	07.29.2020 17:00		1
m,p-Xylenes	179601-23-1	**0.0596**	0.00400	mg/kg	07.29.2020 17:00		1
o-Xylene	95-47-6	**0.0512**	0.00200	mg/kg	07.29.2020 17:00		1
Total Xylenes	1330-20-7	**0.111**	0.00200	mg/kg	07.29.2020 17:00		1
Total BTEX		**0.132**	0.00200	mg/kg	07.29.2020 17:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.29.2020 17:00	
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.29.2020 17:00	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L3 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-006	Date Collected:	07.29.2020 07:18	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	07.29.2020 14:16	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 16:58	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.29.2020 16:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 16:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.29.2020 16:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.29.2020 16:58	
o-Terphenyl	84-15-1	98	%	70-135	07.29.2020 16:58	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L3 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-006	Date Collected:	07.29.2020 07:18	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 17:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.29.2020 17:21	U	1
Ethylbenzene	100-41-4	**0.0152**	0.00200	mg/kg	07.29.2020 17:21		1
m,p-Xylenes	179601-23-1	**0.0104**	0.00400	mg/kg	07.29.2020 17:21		1
o-Xylene	95-47-6	**0.0950**	0.00200	mg/kg	07.29.2020 17:21		1
Total Xylenes	1330-20-7	**0.105**	0.00200	mg/kg	07.29.2020 17:21		1
Total BTEX		**0.121**	0.00200	mg/kg	07.29.2020 17:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.29.2020 17:21	
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.29.2020 17:21	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L4 @6"**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-007	Date Collected:	07.29.2020 07:22	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	9.96	mg/kg	07.29.2020 14:23		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 15:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 17:20	U	1
Diesel Range Organics	C10C28DRO	**348**	50.0	mg/kg	07.29.2020 17:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 17:20	U	1
Total TPH	PHC635	**348**	50.0	mg/kg	07.29.2020 17:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.29.2020 17:20	
o-Terphenyl	84-15-1	106	%	70-135	07.29.2020 17:20	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L4 @6"**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-007	Date Collected:	07.29.2020 07:22	Sample Depth:	6 ft

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00990	0.00990	mg/kg	07.29.2020 17:41	U	1
Toluene	108-88-3	<0.00990	0.00990	mg/kg	07.29.2020 17:41	U	1
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	07.29.2020 17:41	U	1
m,p-Xylenes	179601-23-1	**0.0210**	0.0198	mg/kg	07.29.2020 17:41		1
o-Xylene	95-47-6	**0.0165**	0.00990	mg/kg	07.29.2020 17:41		1
Total Xylenes	1330-20-7	**0.0375**	0.00990	mg/kg	07.29.2020 17:41		1
Total BTEX		**0.0375**	0.00990	mg/kg	07.29.2020 17:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.29.2020 17:41	
4-Bromofluorobenzene	460-00-4	98	%	70-130	07.29.2020 17:41	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L4 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-008	Date Collected:	07.29.2020 07:24	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 12:30	Basis:	Wet Weight
Seq Number:	3132962				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**45.7**	10.0	mg/kg	07.29.2020 14:30		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.29.2020 13:00	Basis:	Wet Weight
Seq Number:	3132966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.29.2020 13:35	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.29.2020 13:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.29.2020 13:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.29.2020 13:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.29.2020 13:35	
o-Terphenyl	84-15-1	102	%	70-135	07.29.2020 13:35	

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Certificate of Analytical Results 668503

COG Operating LLC, Artesia, NM

Azores Fed 2

Sample Id:	**L4 @1'**	Matrix:	Soil	Date Received:	07.29.2020 11:15
Lab Sample Id:	668503-008	Date Collected:	07.29.2020 07:24	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.29.2020 15:07	Basis:	Wet Weight
Seq Number:	3132984				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.29.2020 15:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.29.2020 15:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.29.2020 15:18	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.29.2020 15:18	

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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

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QC Summary 668503

COG Operating LLC

Azores Fed 2

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132962 — Matrix: Solid — Date Prep: 07.29.2020
MB Sample Id: 7708307-1-BLK — LCS Sample Id: 7708307-1-BKS — LCSD Sample Id: 7708307-1-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	269	108	265	106	90-110	1	20	mg/kg	07.29.2020 12:49	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132962 — Matrix: Soil — Date Prep: 07.29.2020
Parent Sample Id: 668503-001 — MS Sample Id: 668503-001 S — MSD Sample Id: 668503-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.6	199	231	104	232	104	90-110	0	20	mg/kg	07.29.2020 13:20	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132962 — Matrix: Soil — Date Prep: 07.29.2020
Parent Sample Id: 668533-001 — MS Sample Id: 668533-001 S — MSD Sample Id: 668533-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	47.1	200	245	99	243	99	90-110	1	20	mg/kg	07.29.2020 16:03	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132966 — Matrix: Solid — Date Prep: 07.29.2020
MB Sample Id: 7708317-1-BLK — LCS Sample Id: 7708317-1-BKS — LCSD Sample Id: 7708317-1-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	1070	107	1090	109	70-135	2	35	mg/kg	07.29.2020 12:55	
Diesel Range Organics	<50.0	1000	1120	112	1130	113	70-135	1	35	mg/kg	07.29.2020 12:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		128		131		70-135	%	07.29.2020 12:55
o-Terphenyl	100		114		114		70-135	%	07.29.2020 12:55

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132966 — Matrix: Solid — Date Prep: 07.29.2020
MB Sample Id: 7708317-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.29.2020 12:35	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 668503

COG Operating LLC

Azores Fed 2

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132966 Matrix: Soil Date Prep: 07.29.2020
Parent Sample Id: 668503-008 MS Sample Id: 668503-008 S MSD Sample Id: 668503-008 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	<50.2	1000	1030	103	1030	103	70-135	0	35	mg/kg	07.29.2020 13:56	
Diesel Range Organics	<50.2	1000	1070	107	1070	107	70-135	0	35	mg/kg	07.29.2020 13:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		123		70-135	%	07.29.2020 13:56
o-Terphenyl	109		108		70-135	%	07.29.2020 13:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132984 Matrix: Solid Date Prep: 07.29.2020
MB Sample Id: 7708310-1-BLK LCS Sample Id: 7708310-1-BKS LCSD Sample Id: 7708310-1-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	0.104	104	0.101	101	70-130	3	35	mg/kg	07.29.2020 13:21	
Toluene	<0.00200	0.100	0.0978	98	0.0944	94	70-130	4	35	mg/kg	07.29.2020 13:21	
Ethylbenzene	<0.00200	0.100	0.103	103	0.0993	99	71-129	4	35	mg/kg	07.29.2020 13:21	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.205	103	70-135	2	35	mg/kg	07.29.2020 13:21	
o-Xylene	<0.00200	0.100	0.105	105	0.102	102	71-133	3	35	mg/kg	07.29.2020 13:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		99		70-130	%	07.29.2020 13:21
4-Bromofluorobenzene	102		97		95		70-130	%	07.29.2020 13:21

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132984 Matrix: Soil Date Prep: 07.29.2020
Parent Sample Id: 668503-008 MS Sample Id: 668503-008 S MSD Sample Id: 668503-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.116	116	0.115	115	70-130	1	35	mg/kg	07.29.2020 14:02	
Toluene	<0.00199	0.0996	0.108	108	0.110	110	70-130	2	35	mg/kg	07.29.2020 14:02	
Ethylbenzene	<0.00199	0.0996	0.114	114	0.112	112	71-129	2	35	mg/kg	07.29.2020 14:02	
m,p-Xylenes	<0.00398	0.199	0.230	116	0.228	114	70-135	1	35	mg/kg	07.29.2020 14:02	
o-Xylene	<0.00199	0.0996	0.112	112	0.114	114	71-133	2	35	mg/kg	07.29.2020 14:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		96		70-130	%	07.29.2020 14:02
4-Bromofluorobenzene	91		89		70-130	%	07.29.2020 14:02

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Loc 8503

CONCHO

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

Client Name: COG-Artesia	Site Manager:
Project Name: Azores Fed 2	
Project Location: (county, state) Lea County, NM	Project #:
Invoice to: Jacqui Harris	
Receiving Laboratory:	Sampler Name: Jacqui Harris
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 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
	L1 @1'	7.29.20	7:00		X			X			X	X	X	
	L1 @1.5'	7.29.20	7:03		X			X			X	X	X	
	L2 @ 2'	7.29.20	7:07		X			X			X	X	X	
	L2 @ 2.5'	7.29.20	7:10		X			X			X	X	X	
	L3 @ 6"	7.29.20	7:15		X			X			X	X	X	
	L3 @ 1'	7.29.20	7:18		X			X			X	X	X	
	L4 @ 6"	7.29.20	7:22		X			X			X	X	X	
	L4 @ 1'	7.29.20	7:24		X			X			X	X	X	

Relinquished by:	Date: 7/29/20	Time: 11:15	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

LAB USE ONLY

Sample Temperature 2.0/1.8

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 07.29.2020 11.15.00 AM

Work Order #: 668503

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)?	1.8	
#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**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero 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: 07.29.2020

Checklist reviewed by: Jessica Kramer Date: 07.29.2020

Jessica Kramer

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Certificate of Analysis Summary 668849

COG Operating LLC, Artesia, NM

Project Name: Azover Fed 2

Project Id:

Contact: Jacqui Harris

Project Location: Lea County

Date Received in Lab: Fri 07.31.2020 14:55

Report Date: 08.03.2020 12:17

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	668849-001		668849-002		668849-003					
	Field Id:	L1 @2'		SW1		SW2					
	Depth:	2- ft									
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	07.31.2020 07:05		07.31.2020 07:09		07.31.2020 07:14					
BTEX by EPA 8021B	***Extracted:***	07.31.2020 16:01		07.31.2020 16:01		07.31.2020 16:01					
	Analyzed:	07.31.2020 17:48		07.31.2020 18:08		07.31.2020 18:28					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	07.31.2020 15:50		07.31.2020 15:50		07.31.2020 15:50					
	Analyzed:	07.31.2020 15:54		07.31.2020 16:00		07.31.2020 16:06					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<10.0	10.0	<9.96	9.96	<9.98	9.98				
TPH By SW8015 Mod	***Extracted:***	07.31.2020 16:00		07.31.2020 16:00		07.31.2020 16:00					
	Analyzed:	07.31.2020 16:21		07.31.2020 16:41		07.31.2020 17:01					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Diesel Range Organics		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9				

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 668849

for

COG Operating LLC

Project Manager: Jacqui Harris

Azover Fed 2

08.03.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.03.2020

Project Manager: **Jacqui Harris**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **668849**
Azover Fed 2
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) 668849. 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. 668849 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
L1 @2'	S	07.31.2020 07:05	2 ft	668849-001
SW1	S	07.31.2020 07:09	ft	668849-002
SW2	S	07.31.2020 07:14	ft	668849-003

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Azover Fed 2

Project ID:
Work Order Number(s): *668849*

Report Date: *08.03.2020*
Date Received: *07.31.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**L1 @2'**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-001	Date Collected:	07.31.2020 07:05	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 15:50	Basis:	Wet Weight
Seq Number:	3133310				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	07.31.2020 15:54	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.31.2020 16:00	Basis:	Wet Weight
Seq Number:	3133298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.31.2020 16:21	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.31.2020 16:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.31.2020 16:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.31.2020 16:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.31.2020 16:21	
o-Terphenyl	84-15-1	80	%	70-135	07.31.2020 16:21	

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**L1 @2'**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-001	Date Collected:	07.31.2020 07:05	Sample Depth:	2 ft

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 16:01	Basis:	Wet Weight
Seq Number:	3133315				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.31.2020 17:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.31.2020 17:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.31.2020 17:48	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.31.2020 17:48	

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**SW1**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-002	Date Collected:	07.31.2020 07:09		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 15:50	Basis:	Wet Weight
Seq Number:	3133310				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	07.31.2020 16:00	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.31.2020 16:00	Basis:	Wet Weight
Seq Number:	3133298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	07.31.2020 16:41	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	07.31.2020 16:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.31.2020 16:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.31.2020 16:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.31.2020 16:41	
o-Terphenyl	84-15-1	78	%	70-135	07.31.2020 16:41	

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**SW1**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-002	Date Collected:	07.31.2020 07:09		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 16:01	Basis:	Wet Weight
Seq Number:	3133315				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.31.2020 18:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.31.2020 18:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	07.31.2020 18:08	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.31.2020 18:08	

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**SW2**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-003	Date Collected:	07.31.2020 07:14		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 15:50	Basis:	Wet Weight
Seq Number:	3133310				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	07.31.2020 16:06	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.31.2020 16:00	Basis:	Wet Weight
Seq Number:	3133298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	07.31.2020 17:01	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	07.31.2020 17:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.31.2020 17:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.31.2020 17:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.31.2020 17:01	
o-Terphenyl	84-15-1	79	%	70-135	07.31.2020 17:01	

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Certificate of Analytical Results 668849

COG Operating LLC, Artesia, NM

Azover Fed 2

Sample Id:	**SW2**	Matrix:	Soil	Date Received:	07.31.2020 14:55
Lab Sample Id:	668849-003	Date Collected:	07.31.2020 07:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.31.2020 16:01	Basis:	Wet Weight
Seq Number:	3133315				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.31.2020 18:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.31.2020 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	07.31.2020 18:28	
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.31.2020 18:28	

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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

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QC Summary 668849

COG Operating LLC

Azover Fed 2

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133310 — Matrix: Solid — Date Prep: 07.31.2020
MB Sample Id: 7708527-1-BLK — LCS Sample Id: 7708527-1-BKS — LCSD Sample Id: 7708527-1-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	270	108	267	107	90-110	1	20	mg/kg	07.31.2020 14:18	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133310 — Matrix: Soil — Date Prep: 07.31.2020
Parent Sample Id: 668753-001 — MS Sample Id: 668753-001 S — MSD Sample Id: 668753-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	262	202	479	107	479	107	90-110	0	20	mg/kg	07.31.2020 14:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133310 — Matrix: Soil — Date Prep: 07.31.2020
Parent Sample Id: 668849-003 — MS Sample Id: 668849-003 S — MSD Sample Id: 668849-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	209	105	209	105	90-110	0	20	mg/kg	07.31.2020 16:11	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133298 — Matrix: Solid — Date Prep: 07.31.2020
MB Sample Id: 7708503-1-BLK — LCS Sample Id: 7708503-1-BKS — LCSD Sample Id: 7708503-1-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	959	96	933	93	70-135	3	35	mg/kg	07.31.2020 11:35	
Diesel Range Organics	<50.0	1000	981	98	951	95	70-135	3	35	mg/kg	07.31.2020 11:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		97		94		70-135	%	07.31.2020 11:35
o-Terphenyl	79		83		81		70-135	%	07.31.2020 11:35

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133298 — Matrix: Solid — Date Prep: 07.31.2020
MB Sample Id: 7708503-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.31.2020 11:15	

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

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QC Summary 668849

COG Operating LLC

Azover Fed 2

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133298 — Matrix: Soil — Date Prep: 07.31.2020
Parent Sample Id: 668753-003 — MS Sample Id: 668753-003 S — MSD Sample Id: 668753-003 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	<50.1	1000	939	94	978	98	70-135	4	35	mg/kg	07.31.2020 13:39	
Diesel Range Organics	<50.1	1000	958	96	1000	100	70-135	4	35	mg/kg	07.31.2020 13:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		100		70-135	%	07.31.2020 13:39
o-Terphenyl	82		84		70-135	%	07.31.2020 13:39

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3133315 — Matrix: Solid — Date Prep: 07.31.2020
MB Sample Id: 7708529-1-BLK — LCS Sample Id: 7708529-1-BKS — LCSD Sample Id: 7708529-1-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	0.0997	100	0.0954	95	70-130	4	35	mg/kg	07.31.2020 13:34	
Toluene	<0.00200	0.100	0.0945	95	0.0905	91	70-130	4	35	mg/kg	07.31.2020 13:34	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.0953	95	71-129	4	35	mg/kg	07.31.2020 13:34	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.194	97	70-135	5	35	mg/kg	07.31.2020 13:34	
o-Xylene	<0.00200	0.100	0.101	101	0.0972	97	71-133	4	35	mg/kg	07.31.2020 13:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		97		95		70-130	%	07.31.2020 13:34
4-Bromofluorobenzene	104		100		92		70-130	%	07.31.2020 13:34

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3133315 — Matrix: Soil — Date Prep: 07.31.2020
Parent Sample Id: 668753-004 — MS Sample Id: 668753-004 S — MSD Sample Id: 668753-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.108	108	0.0972	97	70-130	11	35	mg/kg	07.31.2020 14:14	
Toluene	<0.00199	0.0996	0.104	104	0.0915	92	70-130	13	35	mg/kg	07.31.2020 14:14	
Ethylbenzene	<0.00199	0.0996	0.107	107	0.0933	93	71-129	14	35	mg/kg	07.31.2020 14:14	
m,p-Xylenes	<0.00398	0.199	0.217	109	0.188	94	70-135	14	35	mg/kg	07.31.2020 14:14	
o-Xylene	<0.00199	0.0996	0.108	108	0.0939	94	71-133	14	35	mg/kg	07.31.2020 14:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	07.31.2020 14:14
4-Bromofluorobenzene	98		89		70-130	%	07.31.2020 14:14

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

Chain of Custody

Work Order No: 688849

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com Page _____ of _____

Project Manager:	Jacqui Harris	Bill to: (if different)	COG - Artesia
Company Name:	COG	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	Carlsbad, NM
Phone:	575-496-0180	Email:	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Azover Fed 2	Turn Around	
Project Number:		Routine ☐	
Project Location	Lea, County	Rush: x 24hr	
Sampler's Name:		Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	12.0/11.8	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	3

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chloride	TPH	BTEX	Sample Comments
	L1@2'	soil	7.31.20	7:05		1	x	x	x	
	SW1	soil	↓	7:09		1	x	x	x	
	SW2	soil	↓	7:14		1	x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/31/20 1455	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 07.31.2020 02.55.00 PM

Work Order #: 668849

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)?	11.8	
#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**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	Addtional cooling process began in lab after receipt and precoessing of samples.
#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: 07.31.2020

Checklist reviewed by: Jessica Kramer Date: 07.31.2020

Jessica Kramer

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012235693
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: Jacqui Harris Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 3/1/2021

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: Robert Hamlet Date: 3/1/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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 10220

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
COG OPERATING LLC 600 W Illinois Ave Midland, TX79701	229137	10220	C-141

OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NRM2012235693 AZORES FEDERAL 002H, thank you. This closure is approved.