CONCHO

April 23, 2021

Oil Conservation Division, District II
811 S. First St.
Artesia, NM 88210

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

Re: Closure Request Report
Asio Otus Federal 003H (10.27.20)
Tracking #NRM2032945645
GPS: 32.0397, -104.2317
Unit Letter K, Section 18, Township 26 South, Range 27 East
Eddy County, New Mexico

To Whom it May Concern,

COG Operating, LLC (COG) is pleased to submit the following closure report in response to a release that occurred at the Asio Otus Federal 003H located in Unit Letter K, Section 18, Township 26 South, Range 27 East in Eddy County, New Mexico. The spill site coordinates are 32.0397, -104.2317.

BACKGROUND
The release was discovered on October 27, 2020 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The release was caused by a leak in the produced water header connected at the Asio Otus CTB Battery. A two-inch steel nipple broke due to corrosion and fluids released inside the small header containment. The fluids overflowed the containment impacting the pasture. A vacuum truck was dispatched immediately to remove all freestanding fluids. Approximately twenty- eight (28) barrels of produced water was released and twenty-four (24) barrels of fluid were recovered. The initial C-141 is shown in Appendix A.

GROUNDWATER AND REGULATORY
According to the New Mexico Office of State Engineer (NMOSE) there is a monitoring well (POD 04269) located approximately four hundred-and-one feet northeast of the release area. The logs indicate water bearing formations were found from 94-105 ft bgs. The water well information is shown in Appendix B.

An evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production facilities in New Mexico (effective August 14, 2018). According to the site character evaluation, the release area is located in high karst. 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 groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
High Karst	50-100 ft

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

- The release area was delineated during initial sampling at six locations (T-1 thru T-4, T-6, & T-7). Results indicated chloride impact within the top three (3) feet around T-2 and T-3. The chlorides found in T-1, T-4, T-6, & T-7 were below NMOCD closure levels. Table 1 shows sample depths and analytical results.

REMEDIAL ACTIONS

- The impacted area around T-2 and T-3 was excavated to a depth of three (3) feet BGS.
- Table 1 shows the sample depths and analytical results.
- All the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from bottom and sidewalls of the excavation per NMAC 19.15.29.
- The site was backfilled with clean "like" material.
- The analytical data shown in Table 1 show that the release area meets NMOCD closure criteria (NMAC 19.15.29.12(E) Table I) and NMAC 19.15.29.13(D)(1).

SAMPLING AND BACKFILLING

Once excavated, soil samples were collected from the sidewalls to confirm the removal of impacted soil greater than 600 mg/kg of chlorides. Composite sidewall samples were collected every 200 square feet, to be representative of the release area, for documentation purposes. Table 1 show the five sidewalls (SW-1 thru SW-5) taken meet NMOCD closure criteria.

Confirmation samples were collected every 200 square feet on the bottom of the excavation. The confirmation samples (CS-1 thru CS-6) results meet NMOCD closure criteria.

Once completed, the excavated area was backfilled with non-contaminated material with concentrations below 600 mg/kg of chlorides.

REQUEST FOR CLOSURE

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Asio Otus Federal 003H that occurred on October 27, 2020 (Tracking # NRM2032945645).

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

Sincerely,

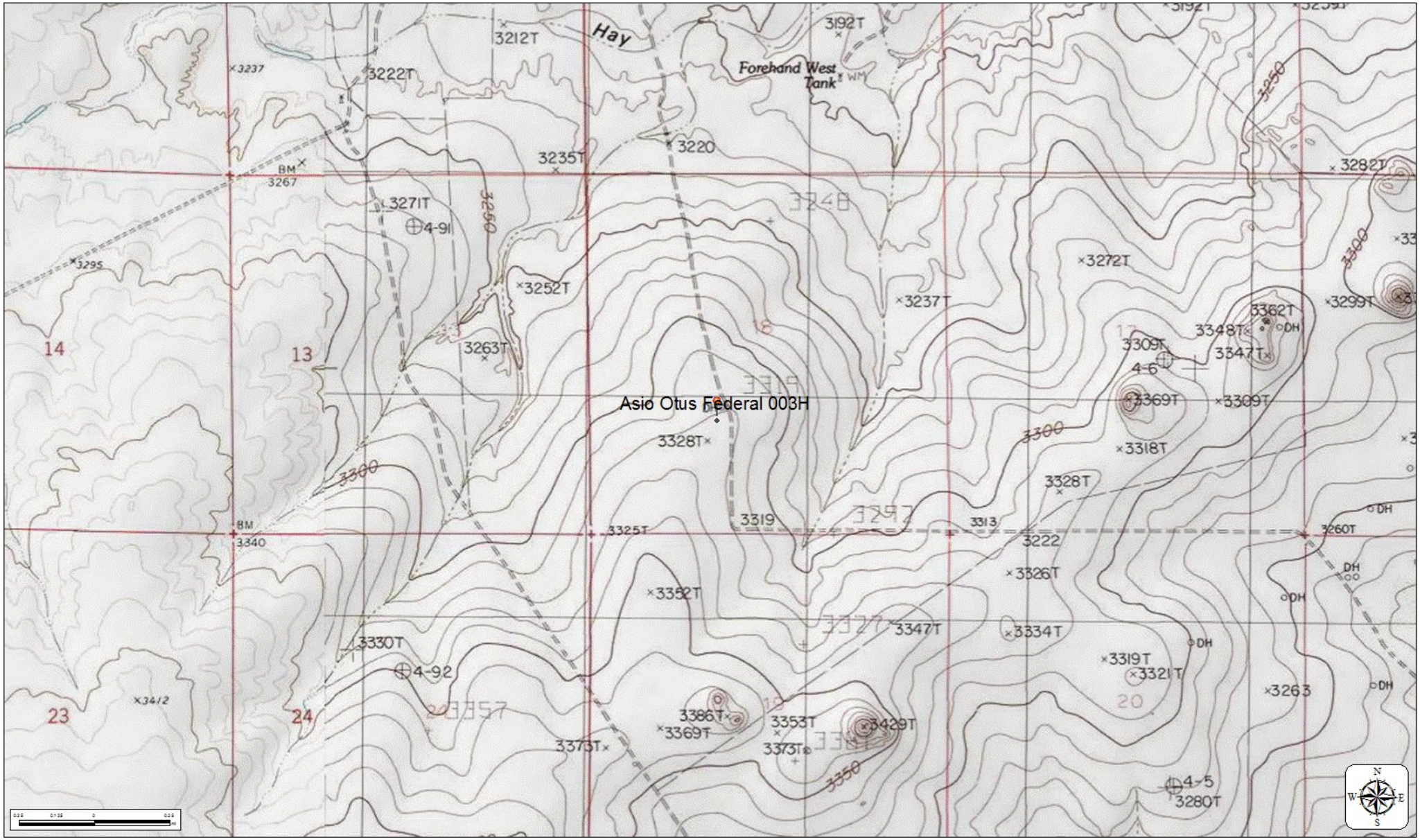
Jacqui Harris

Jacqui Harris
Environmental Coordinator
Jacqui.Harris@conocophillips.com

Maps

CONCHO

Asio Otus-Contour Map



COG Operating LLC.

Asio Otus Federal 003H (10.27.20)
GPS: 32.0397, -104.2317
Eddy County, NM

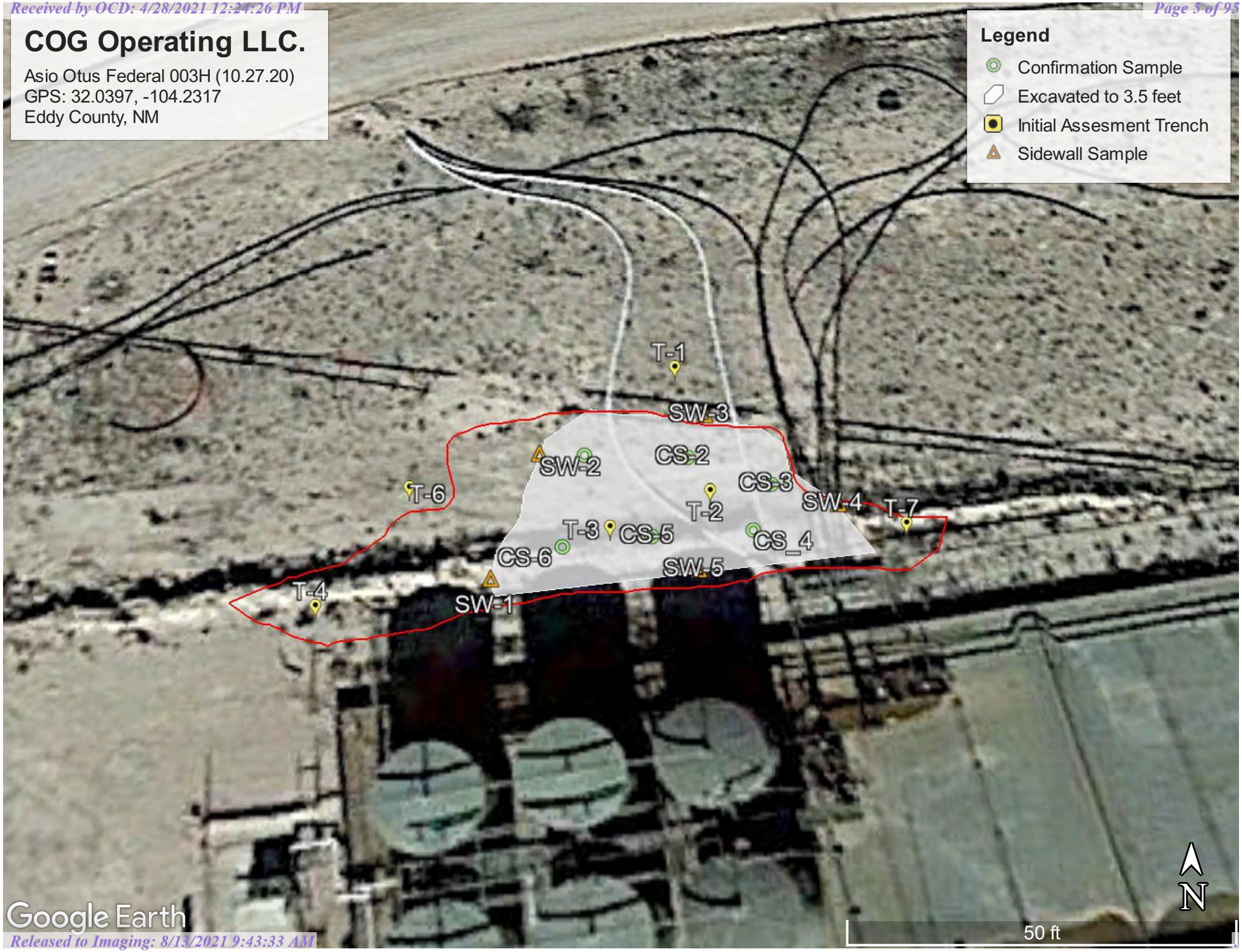


Table of Analytical Data

Table 1
COG Operating LLC.
Asio Otus Federal 003H (10.27.20)-Analytical Data
Eddy 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) - 51'-100' High Karst													
	NMOCD RAL Limits (mg/kg)				-	-	-	***100***	-	-	***100***	***10***	***50***	***600***
Initial Assesment	T-1@1'	12/19/20		X	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	105
	T-1@2'	12/20/20		X	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	255
	T-2@3'	12/21/20		X	<50.2	<50.2	55.4	55.4	<50.2	<50.2	55.4	<0.00200	<0.00200	**1250**
	T-2@4'	12/22/20	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	171
	T-3@2'	12/23/20		X	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	**9630**
	T-3@3'	12/24/20		X	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	**624**
	T-4@1'	12/25/20	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	116
	T-4@2'	12/26/20	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	130
	T-6@1'	12/27/20	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	39.2
	T-6@2'	12/28/20	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	39.3
	T-7@1'	12/29/20	X		<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	40.2
	T-7@2'	12/29/20	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	63.6
Confirmation Sampling	CS-1	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	170
	CS-2	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	141
	CS-3	1/26/21	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	164
	CS-4	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	338
	CS-5	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	416
	CS-6	1/26/21	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	188
	SW-1	1/26/21	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	47.9
	SW-2	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	55.2
	SW-3	1/26/21	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	53.3
	SW-4	1/26/21	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	61.6
	SW-5	1/26/21	X		<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	105

Photos

Release Excavated to 3.5 ft.

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		

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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Jacqui Harris _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____

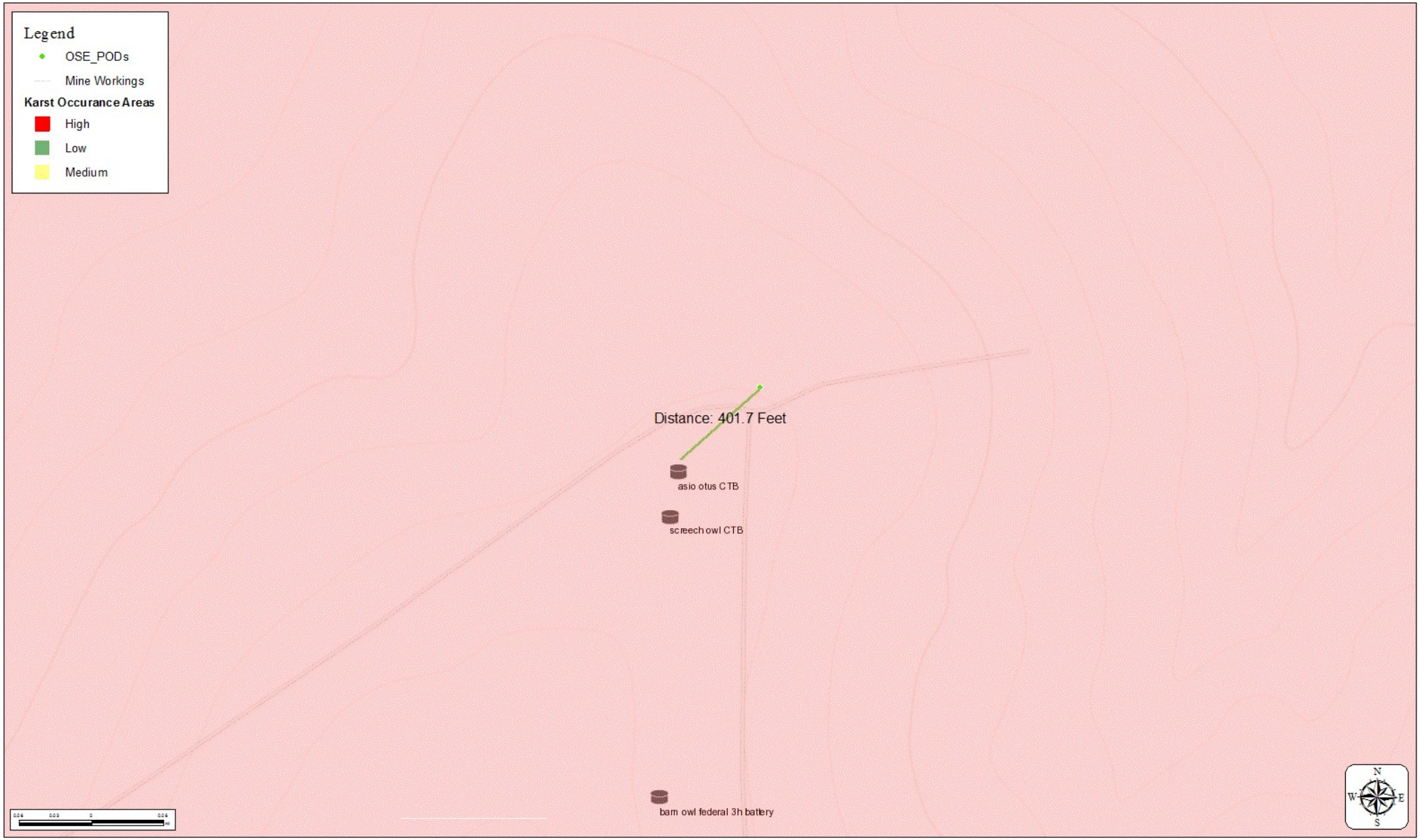
Printed Name: _____ Title: _____

Appendix B

Site Assessment Data

CONCHO

ArcGIS Web Map



Asio Otus 3H -NMOSE 1/2 mile Buffer

3/23/2021, 11:34:38 AM

GIS WATERS PODs
- Pending
- Plugged

OSE District Boundary

SiteBoundaries

New Mexico State Trust Lands
- Both Estates

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

USDA FSA, GeoEye, Maxar, Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC

OSE POD Locations

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (MW-1)		C-4269

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Plains All American Pipeline, L.P.	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
P.O. Box 4648	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	02	25.56	N
	LONGITUDE	104	13	51.03	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

K, Section 18, T 26 S, R 27 E, Eddy Co. NM

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1575	Shane Currie	Talon LPE

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
09/17/2018	09/18/2018	105	105	N/A

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	45	5.625	New Plastic PVC SCH. 40	Blank	2		
45	105	5.625	New Plastic PVC SCH. 40	Screen	2		0.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	3	5.625	Cement	0.45	Tremie
3	40	5.625	Bentonite	5.61	Tremie
40	105	5.625	8/16 Sand	9.86	Tremie

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4269	POD NO. 1	TRN NO. 628620
LOCATION Exp1 26S.27E.18.324	WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	8	8	Light Brown Silty Sand, Fine, Poorly Graded, Dry, Dense, Caliche	Y ✓ N	
8	16	8	Light Brown-Gray Limestone, Very Hard	Y ✓ N	
16	76	60	Light Brown Silty Sand, Fine, Poorly Graded, Damp, Dense, Calcareo	Y ✓ N	
76	94	18	Light Brown-Pink Silty Sand, Medium Grain, Poorly Grain, Damp	Y ✓ N	
94	98	4	Light Brown-Pink Silty Sand, Medium Grain, Poorly Grain, Moist, Loose	✓ Y N	
98	105	7	Light Brown Silty Sand, Fine, Poorly Grain, Damp, Dense	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☑ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shane Currie — 2/4/19

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

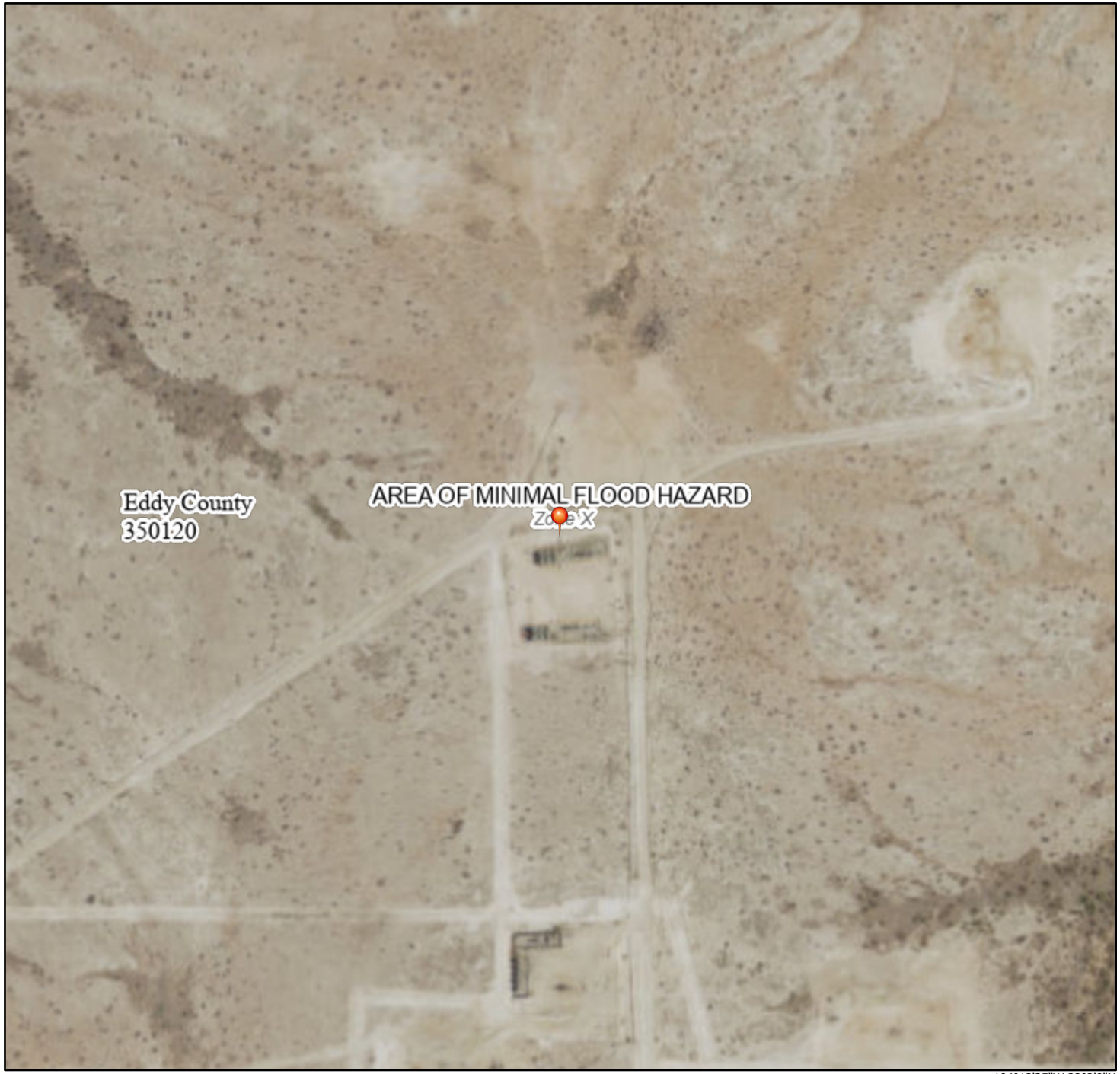
FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4269	POD NO. 1	TRN NO. 628620
LOCATION 26S.27E.18.324	WELL TAG ID NO. —	PAGE 2 OF 2

National Flood Hazard Layer FIRMette

FEMA

104°14'13"W 32°2'39"N



104°13'35"W 32°2'8"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/23/2021 at 1:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Appendix C

Analytical Reports

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 683014

COG Operating LLC, Artesia, NM

Project Name: Asio Otus Fed 3H

Project Id:

Contact: Jacqui Harris

Project Location: Eddy County, NM

Date Received in Lab: Wed 12.30.2020 13:45

Report Date: 01.04.2021 17:00

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	683014-001		683014-002		683014-003		683014-004		683014-005		683014-006	
	Field Id:	T-1@1'		T-1@2'		T-2@3'		T-2@4'		T-3@2'		T-3@3'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00	
	Analyzed:	12.31.2020 12:06		12.31.2020 12:28		12.31.2020 12:50		12.31.2020 13:13		12.31.2020 13:36		12.31.2020 14:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00401	0.00401	<0.00401	0.00401	<0.00400	0.00400	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30	
	Analyzed:	12.31.2020 10:42		12.31.2020 12:06		12.31.2020 11:06		12.31.2020 11:24		12.31.2020 11:30		12.31.2020 11:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		105	49.7	255	50.1	1250	50.1	171	49.5	9630	200	624	49.8
TPH By SW8015 Mod	***Extracted:***	12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00	
	Analyzed:	12.30.2020 21:01		12.30.2020 21:21		12.30.2020 21:41		12.30.2020 22:01		12.30.2020 22:21		12.30.2020 22:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<50.2	50.2	<49.9	49.9	<50.2	50.2	<49.9	49.9	<49.9	49.9	<50.2	50.2
Diesel Range Organics		<50.2	50.2	<49.9	49.9	<50.2	50.2	<49.9	49.9	<49.9	49.9	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<49.9	49.9	55.4	50.2	<49.9	49.9	<49.9	49.9	<50.2	50.2
Total TPH		<50.2	50.2	<49.9	49.9	55.4	50.2	<49.9	49.9	<49.9	49.9	<50.2	50.2

BRL - Below Reporting Limit

Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 683014

COG Operating LLC, Artesia, NM

Project Name: Asio Otus Fed 3H

Project Id:

Contact: Jacqui Harris

Project Location: Eddy County, NM

Date Received in Lab: Wed 12.30.2020 13:45

Report Date: 01.04.2021 17:00

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	683014-007		683014-008		683014-009		683014-010		683014-011		683014-012	
	Field Id:	T-4@1'		T-4@2'		T-6@1'		T-6@2'		T-7@1'		T-7@2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00		12.29.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00	
	Analyzed:	12.31.2020 15:18		12.31.2020 15:41		12.31.2020 16:03		12.31.2020 16:26		12.31.2020 16:48		12.31.2020 17:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00396	0.00396	<0.00403	0.00403	<0.00403	0.00403	<0.00399	0.00399	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30		12.31.2020 08:30		12.31.2020 09:30		12.31.2020 09:30	
	Analyzed:	12.31.2020 11:42		12.31.2020 11:48		12.31.2020 12:42		12.31.2020 12:48		12.31.2020 23:53		12.31.2020 23:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		116	49.9	130	50.0	39.2	9.92	39.3	9.98	40.2	9.98	63.6	49.9
TPH By SW8015 Mod	***Extracted:***	12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00		12.30.2020 17:00	
	Analyzed:	12.30.2020 23:01		12.30.2020 23:22		12.31.2020 00:02		12.31.2020 00:22		12.31.2020 00:42		12.31.2020 01:02	
	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	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0
Diesel Range Organics		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Analytical Report 683014

for

COG Operating LLC

Project Manager: Jacqui Harris

Asio Otus Fed 3H

01.04.2021

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

01.04.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **683014**
Asio Otus Fed 3H
Project Address: Eddy 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) 683014. 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. 683014 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

eurofins | Environment Testing Xenco

Sample Cross Reference 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1@1'	S	12.29.2020 00:00		683014-001
T-1@2'	S	12.29.2020 00:00		683014-002
T-2@3'	S	12.29.2020 00:00		683014-003
T-2@4'	S	12.29.2020 00:00		683014-004
T-3@2'	S	12.29.2020 00:00		683014-005
T-3@3'	S	12.29.2020 00:00		683014-006
T-4@1'	S	12.29.2020 00:00		683014-007
T-4@2'	S	12.29.2020 00:00		683014-008
T-6@1'	S	12.29.2020 00:00		683014-009
T-6@2'	S	12.29.2020 00:00		683014-010
T-7@1'	S	12.29.2020 00:00		683014-011
T-7@2'	S	12.29.2020 00:00		683014-012

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Asio Otus Fed 3H

Project ID:
Work Order Number(s): *683014*

Report Date: *01.04.2021*
Date Received: *12.30.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-1@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-001	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	49.7	mg/kg	12.31.2020 10:42		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	12.30.2020 21:01	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	12.30.2020 21:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.30.2020 21:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.30.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.30.2020 21:01	
o-Terphenyl	84-15-1	122	%	70-135	12.30.2020 21:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-1@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-001	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.31.2020 12:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 12:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.31.2020 12:06	
4-Bromofluorobenzene	460-00-4	128	%	70-130	12.31.2020 12:06	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-1@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-002	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**255**	50.1	mg/kg	12.31.2020 12:06		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.30.2020 21:21	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.30.2020 21:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.30.2020 21:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.30.2020 21:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.30.2020 21:21	
o-Terphenyl	84-15-1	116	%	70-135	12.30.2020 21:21	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-1@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-002	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.31.2020 12:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 12:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.31.2020 12:28	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.31.2020 12:28	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-2@3'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-003	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1250**	50.1	mg/kg	12.31.2020 11:06		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	12.30.2020 21:41	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	12.30.2020 21:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**55.4**	50.2	mg/kg	12.30.2020 21:41		1
Total TPH	PHC635	**55.4**	50.2	mg/kg	12.30.2020 21:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.30.2020 21:41	
o-Terphenyl	84-15-1	108	%	70-135	12.30.2020 21:41	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-2@3'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-003	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.31.2020 12:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 12:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.31.2020 12:50	
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.31.2020 12:50	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **T-2@4'** Matrix: Soil Date Received:12.30.2020 13:45

Lab Sample Id: 683014-004 Date Collected: 12.29.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.31.2020 08:30 % Moisture:

Seq Number: 3146517 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**171**	49.5	mg/kg	12.31.2020 11:24		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: CAC

Analyst: CAC Date Prep: 12.30.2020 17:00 % Moisture:

Seq Number: 3146471 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.30.2020 22:01	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.30.2020 22:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.30.2020 22:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.30.2020 22:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.30.2020 22:01	
o-Terphenyl	84-15-1	105	%	70-135	12.30.2020 22:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-2@4'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-004	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.31.2020 13:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 13:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.31.2020 13:13	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.31.2020 13:13	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-3@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-005	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9630**	200	mg/kg	12.31.2020 11:30		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.30.2020 22:21	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.30.2020 22:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.30.2020 22:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.30.2020 22:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.30.2020 22:21	
o-Terphenyl	84-15-1	105	%	70-135	12.30.2020 22:21	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-3@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-005	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.31.2020 13:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 13:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.31.2020 13:36	
4-Bromofluorobenzene	460-00-4	125	%	70-130	12.31.2020 13:36	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-3@3'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-006	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**624**	49.8	mg/kg	12.31.2020 11:36		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	12.30.2020 22:41	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	12.30.2020 22:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.30.2020 22:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.30.2020 22:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.30.2020 22:41	
o-Terphenyl	84-15-1	102	%	70-135	12.30.2020 22:41	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-3@3'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-006	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.31.2020 14:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 14:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.31.2020 14:56	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.31.2020 14:56	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-4@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-007	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**116**	49.9	mg/kg	12.31.2020 11:42		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	12.30.2020 23:01	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	12.30.2020 23:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.30.2020 23:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.30.2020 23:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.30.2020 23:01	
o-Terphenyl	84-15-1	110	%	70-135	12.30.2020 23:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-4@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-007	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.31.2020 15:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 15:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.31.2020 15:18	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.31.2020 15:18	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-4@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-008	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**130**	50.0	mg/kg	12.31.2020 11:48		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	12.30.2020 23:22	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	12.30.2020 23:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.30.2020 23:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.30.2020 23:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.30.2020 23:22	
o-Terphenyl	84-15-1	113	%	70-135	12.30.2020 23:22	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-4@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-008	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.31.2020 15:41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.31.2020 15:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.31.2020 15:41	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.31.2020 15:41	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **T-6@1'** Matrix: Soil Date Received:12.30.2020 13:45

Lab Sample Id: 683014-009 Date Collected: 12.29.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.31.2020 08:30 % Moisture:

Seq Number: 3146517 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.2**	9.92	mg/kg	12.31.2020 12:42		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: CAC

Analyst: CAC Date Prep: 12.30.2020 17:00 % Moisture:

Seq Number: 3146471 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	12.31.2020 00:02	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	12.31.2020 00:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.31.2020 00:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.31.2020 00:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	12.31.2020 00:02	
o-Terphenyl	84-15-1	106	%	70-135	12.31.2020 00:02	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-6@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-009	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.31.2020 16:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.31.2020 16:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.31.2020 16:03	
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.31.2020 16:03	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-6@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-010	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 08:30	% Moisture:	
Seq Number:	3146517			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.3**	9.98	mg/kg	12.31.2020 12:48		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	12.31.2020 00:22	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	12.31.2020 00:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.31.2020 00:22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.31.2020 00:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.31.2020 00:22	
o-Terphenyl	84-15-1	105	%	70-135	12.31.2020 00:22	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-6@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-010	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.31.2020 16:26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.31.2020 16:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.31.2020 16:26	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.31.2020 16:26	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-7@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-011	Date Collected:	12.29.2020 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.31.2020 09:30	% Moisture:	
Seq Number:	3146548			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.2**	9.98	mg/kg	12.31.2020 23:53		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	CAC				
Analyst:	CAC	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146471			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	12.31.2020 00:42	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	12.31.2020 00:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.31.2020 00:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.31.2020 00:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	12.31.2020 00:42	
o-Terphenyl	84-15-1	98	%	70-135	12.31.2020 00:42	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-7@1'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-011	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.31.2020 16:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.2020 16:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.31.2020 16:48	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.31.2020 16:48	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **T-7@2'** Matrix: Soil Date Received:12.30.2020 13:45

Lab Sample Id: 683014-012 Date Collected: 12.29.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 12.31.2020 09:30 % Moisture:

Seq Number: 3146548 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**63.6**	49.9	mg/kg	12.31.2020 23:59		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: CAC

Analyst: CAC Date Prep: 12.30.2020 17:00 % Moisture:

Seq Number: 3146471 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	12.31.2020 01:02	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	12.31.2020 01:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.31.2020 01:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.31.2020 01:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.31.2020 01:02	
o-Terphenyl	84-15-1	116	%	70-135	12.31.2020 01:02	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 683014

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**T-7@2'**	Matrix:	Soil	Date Received:	12.30.2020 13:45
Lab Sample Id:	683014-012	Date Collected:	12.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	12.30.2020 17:00	% Moisture:	
Seq Number:	3146607			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.31.2020 17:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.31.2020 17:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.31.2020 17:11	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.31.2020 17:11	

eurofins | Environment Testing Xenco

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

eurofins | Environment Testing Xenco

QC Summary 683014

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146517 — Matrix: Solid — Date Prep: 12.31.2020
MB Sample Id: 7718218-1-BLK — LCS Sample Id: 7718218-1-BKS — LCSD Sample Id: 7718218-1-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	251	100	253	101	90-110	1	20	mg/kg	12.31.2020 09:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146517 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 682818-001 — MS Sample Id: 682818-001 S — MSD Sample Id: 682818-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	70.8	199	275	103	275	103	90-110	0	20	mg/kg	12.31.2020 09:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146517 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 683014-001 — MS Sample Id: 683014-001 S — MSD Sample Id: 683014-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	105	200	295	95	293	94	90-110	1	20	mg/kg	12.31.2020 10:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146548 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 683040-033 — MS Sample Id: 683040-033 S — MSD Sample Id: 683040-033 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	191	96	185	93	90-110	3	20	mg/kg	12.31.2020 21:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3146548 — Matrix: Soil — Date Prep: 12.31.2020
Parent Sample Id: 683040-043 — MS Sample Id: 683040-043 S — MSD Sample Id: 683040-043 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.9	198	212	96	211	95	90-110	0	20	mg/kg	12.31.2020 23:12	

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 683014

eurofins | Environment Testing Xenco

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146471 — Matrix: Solid — Date Prep: 12.30.2020
MB Sample Id: 7718213-1-BLK — LCS Sample Id: 7718213-1-BKS — LCSD Sample Id: 7718213-1-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	1090	109	1160	116	70-135	6	35	mg/kg	12.30.2020 18:58	
Diesel Range Organics	<50.0	1000	1120	112	1130	113	70-135	1	35	mg/kg	12.30.2020 18:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		108		101		70-135	%	12.30.2020 18:58
o-Terphenyl	80		110		102		70-135	%	12.30.2020 18:58

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146471 — Matrix: Solid — Date Prep: 12.30.2020
MB Sample Id: 7718213-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.30.2020 18:38	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3146471 — Matrix: Soil — Date Prep: 12.30.2020
Parent Sample Id: 683013-001 — MS Sample Id: 683013-001 S — MSD Sample Id: 683013-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.1	1000	1200	120	1100	110	70-135	9	35	mg/kg	12.30.2020 20:00	
Diesel Range Organics	<50.1	1000	982	98	1080	108	70-135	10	35	mg/kg	12.30.2020 20:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		111		70-135	%	12.30.2020 20:00
o-Terphenyl	113		109		70-135	%	12.30.2020 20:00

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3146607 — Matrix: Solid — Date Prep: 12.30.2020
MB Sample Id: 7718258-1-BLK — LCS Sample Id: 7718258-1-BKS — LCSD Sample Id: 7718258-1-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	0.0892	89	0.0896	90	70-130	0	35	mg/kg	12.31.2020 08:08	
Toluene	<0.00200	0.100	0.0853	85	0.0830	83	70-130	3	35	mg/kg	12.31.2020 08:08	
Ethylbenzene	<0.00200	0.100	0.0920	92	0.0849	85	71-129	8	35	mg/kg	12.31.2020 08:08	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.179	90	70-135	4	35	mg/kg	12.31.2020 08:08	
o-Xylene	<0.00200	0.100	0.0957	96	0.0890	89	71-133	7	35	mg/kg	12.31.2020 08:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		99		99		70-130	%	12.31.2020 08:08
4-Bromofluorobenzene	114		109		108		70-130	%	12.31.2020 08:08

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

eurofins | Environment Testing Xenco

QC Summary 683014

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3146607 Matrix: Soil Date Prep: 12.30.2020

Parent Sample Id: 682883-001 MS Sample Id: 682883-001 S MSD Sample Id: 682883-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0967	97	0.0893	90	70-130	8	35	mg/kg	12.31.2020 08:53	
Toluene	<0.00199	0.0996	0.0883	89	0.0798	80	70-130	10	35	mg/kg	12.31.2020 08:53	
Ethylbenzene	<0.00199	0.0996	0.0926	93	0.0767	77	71-129	19	35	mg/kg	12.31.2020 08:53	
m,p-Xylenes	<0.00398	0.199	0.190	95	0.156	79	70-135	20	35	mg/kg	12.31.2020 08:53	
o-Xylene	<0.00199	0.0996	0.0932	94	0.0823	83	71-133	12	35	mg/kg	12.31.2020 08:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	12.31.2020 08:53
4-Bromofluorobenzene	114		113		70-130	%	12.31.2020 08:53

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

6830 14

Page 1 of 2

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas

Tel (432) 683-7443

Client Name: COG	Site Manager: Jacqui Harris
Project Name: Asio Otus Fed 3H	
Project Location: (county, state) Eddy, 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	TIME	MATRIX WATER	SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	T-1 @ 1'	12.29.20			X			X			X	X	X	
	T-1@ 2'	12.29.20			X			X			X	X	X	
	T-2 @ 3'	12.29.20			X			X			X	X	X	
	T-2 @ 4'	12.29.20			X			X			X	X	X	
	T-3 @ 2'	12.29.20			X			X			X	X	X	
	T-3 @ 3'	12.29.20			X			X			X	X	X	
	T-4 @ 1'	12.29.20			X			X			X	X	X	
	T-4 @ 2'	12.29.20			X			X			X	X	X	
	T-6 @ 1'	12.29.20			X			X			X	X	X	
	T-6 @ 2'	12.29.20			X			X			X	X	X	

Relinquished by: Jacqui Harris	Date: 12.30.20	Time: 13:45	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: Date: 12.30.20 Time: 1345

LAB USE ONLY

Sample Temperature 1.6/1.4 TNH007

REMARKS: Standard

- ☐ 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

Analysis Request of Chain of Custody Record

CONCHO

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

Client Name: COG	Site Manager: Jacqui Harris
Project Name: Asio Otus Fed 3H	
Project Location: (county, state) Eddy, 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
	T-7 @ 1'	12.29.20			X			X			X	X	X	
	T-7 @ 2'	12.29.20			X			X			X	X	X	

Relinquished by: Jacqui Harris	Date: 12.30.20	Time: 13:45	Received by:	Date: 123020	Time: 1345
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature

1.6 / 1.4

TNM 007

REMARKS:

Standard

☐ 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 | Environment Testing Xenco

Certificate of Analysis Summary 686125

COG Operating LLC, Artesia, NM

Project Name: Asio Otus Fed 3H

Project Id:

Contact: J Harris

Project Location: Eddy, New Mexico

Date Received in Lab: Tue 01.26.2021 15:28

Report Date: 02.01.2021 17:06

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	686125-001		686125-002		686125-003		686125-004		686125-005		686125-006	
	Field Id:	CS-1		CS-2		CS-3		CS-4		CS-5		CS-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00	
BTEX by EPA 8021B	***Extracted:***	01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00	
	Analyzed:	01.27.2021 01:53		01.27.2021 02:15		01.27.2021 02:38		01.27.2021 03:00		01.27.2021 03:23		01.27.2021 03:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399	<0.00403	0.00403	<0.00402	0.00402	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38	
	Analyzed:	01.27.2021 15:28		01.27.2021 15:33		01.27.2021 15:39		01.27.2021 15:45		01.27.2021 16:02		01.27.2021 16:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		170	99.6	141	100	164	99.8	338	100	416	99.6	188	99.0
TPH By SW8015 Mod SUB: T104704400-20-21	***Extracted:***	01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00	
	Analyzed:	01.30.2021 05:33		01.30.2021 06:37		01.30.2021 06:59		01.30.2021 07:21		01.30.2021 07:43		01.30.2021 08:05	
	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	<49.9	49.9	<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	<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	<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	<50.0	50.0	<50.0	50.0	<49.9	49.9

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 686125

COG Operating LLC, Artesia, NM

Project Name: Asio Otus Fed 3H

Project Id:

Contact: J Harris

Project Location: Eddy, New Mexico

Date Received in Lab: Tue 01.26.2021 15:28

Report Date: 02.01.2021 17:06

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	686125-007		686125-008		686125-009		686125-010		686125-011	
	Field Id:	SW-1		SW-2		SW-3		SW-4		SW-5	
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00		01.26.2021 00:00	
BTEX by EPA 8021B	***Extracted:***	01.26.2021 16:00		01.26.2021 19:47		01.26.2021 19:47		01.26.2021 19:47		01.26.2021 19:47	
	Analyzed:	01.27.2021 04:08		01.28.2021 02:32		01.28.2021 02:54		01.28.2021 03:16		01.28.2021 03:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00401	0.00401	<0.00399	0.00399	<0.00397	0.00397	<0.00401	0.00401	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38	
	Analyzed:	01.27.2021 16:24		01.27.2021 16:30		01.27.2021 16:36		01.27.2021 16:41		01.27.2021 16:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		47.9	10.1	55.2	9.98	53.3	10.1	61.6	10.0	105	99.2
TPH By SW8015 Mod SUB: T104704400-20-21	***Extracted:***	01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00		01.29.2021 17:00	
	Analyzed:	01.30.2021 08:27		01.30.2021 09:11		01.30.2021 09:33		01.30.2021 09:56		01.30.2021 10:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Analytical Report 686125

for

COG Operating LLC

Project Manager: J Harris

Asio Otus Fed 3H

02.01.2021

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

02.01.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **686125**
Asio Otus Fed 3H
Project Address: Eddy, New Mexico

J 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) 686125. 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. 686125 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

eurofins | Environment Testing Xenco

Sample Cross Reference 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1	S	01.26.2021 00:00		686125-001
CS-2	S	01.26.2021 00:00		686125-002
CS-3	S	01.26.2021 00:00		686125-003
CS-4	S	01.26.2021 00:00		686125-004
CS-5	S	01.26.2021 00:00		686125-005
CS-6	S	01.26.2021 00:00		686125-006
SW-1	S	01.26.2021 00:00		686125-007
SW-2	S	01.26.2021 00:00		686125-008
SW-3	S	01.26.2021 00:00		686125-009
SW-4	S	01.26.2021 00:00		686125-010
SW-5	S	01.26.2021 00:00		686125-011

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Asio Otus Fed 3H

Project ID:
Work Order Number(s): *686125*

Report Date: *02.01.2021*
Date Received: *01.26.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3149589 TPH By SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 686125-007.

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-1** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-001 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	99.6	mg/kg	01.27.2021 15:28		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 05:33	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 05:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 05:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 05:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	01.30.2021 05:33	
o-Terphenyl	84-15-1	100	%	70-130	01.30.2021 05:33	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-1**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-001	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.27.2021 01:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.27.2021 01:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.27.2021 01:53	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.27.2021 01:53	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-2** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-002 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**141**	100	mg/kg	01.27.2021 15:33		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 06:37	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 06:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 06:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 06:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	01.30.2021 06:37	
o-Terphenyl	84-15-1	106	%	70-130	01.30.2021 06:37	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-2**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-002	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.27.2021 02:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.27.2021 02:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.27.2021 02:15	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.27.2021 02:15	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-3** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-003 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**164**	99.8	mg/kg	01.27.2021 15:39		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.30.2021 06:59	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.30.2021 06:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.30.2021 06:59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.30.2021 06:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.30.2021 06:59	
o-Terphenyl	84-15-1	93	%	70-130	01.30.2021 06:59	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-3**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-003	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.27.2021 02:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.27.2021 02:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.27.2021 02:38	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.27.2021 02:38	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-4** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-004 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**338**	100	mg/kg	01.27.2021 15:45		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 07:21	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 07:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 07:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 07:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	01.30.2021 07:21	
o-Terphenyl	84-15-1	97	%	70-130	01.30.2021 07:21	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-4**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-004	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.27.2021 03:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.27.2021 03:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.27.2021 03:00	
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.27.2021 03:00	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-5** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-005 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**416**	99.6	mg/kg	01.27.2021 16:02		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 07:43	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 07:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 07:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 07:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.30.2021 07:43	
o-Terphenyl	84-15-1	109	%	70-130	01.30.2021 07:43	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-5**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-005	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.27.2021 03:23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.27.2021 03:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.27.2021 03:23	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.27.2021 03:23	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **CS-6** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-006 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	99.0	mg/kg	01.27.2021 16:07		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.30.2021 08:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.30.2021 08:05	
o-Terphenyl	84-15-1	83	%	70-130	01.30.2021 08:05	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**CS-6**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-006	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.27.2021 03:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.27.2021 03:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.27.2021 03:45	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.27.2021 03:45	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **SW-1** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-007 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.9**	10.1	mg/kg	01.28.2021 15:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.30.2021 08:27	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.30.2021 08:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.30.2021 08:27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.30.2021 08:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	62	%	70-130	01.30.2021 08:27	**
o-Terphenyl	84-15-1	67	%	70-130	01.30.2021 08:27	**

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-007	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.27.2021 04:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.27.2021 04:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.27.2021 04:08	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.27.2021 04:08	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **SW-2** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-008 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.2**	9.98	mg/kg	01.28.2021 15:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 09:11	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 09:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 09:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 09:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	01.30.2021 09:11	
o-Terphenyl	84-15-1	92	%	70-130	01.30.2021 09:11	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-008	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 19:47	% Moisture:	
Seq Number:	3149157			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.28.2021 02:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.28.2021 02:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	01.28.2021 02:32	
1,4-Difluorobenzene	540-36-3	95	%	70-130	01.28.2021 02:32	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **SW-3** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-009 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**53.3**	10.1	mg/kg	01.28.2021 15:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.30.2021 09:33	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.30.2021 09:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.30.2021 09:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.30.2021 09:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.30.2021 09:33	
o-Terphenyl	84-15-1	80	%	70-130	01.30.2021 09:33	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-009	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 19:47	% Moisture:	
Seq Number:	3149157			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.28.2021 02:54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.28.2021 02:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.28.2021 02:54	
4-Bromofluorobenzene	460-00-4	127	%	70-130	01.28.2021 02:54	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **SW-4** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-010 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.6**	10.0	mg/kg	01.28.2021 15:20		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.30.2021 09:56	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.30.2021 09:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.30.2021 09:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.30.2021 09:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	01.30.2021 09:56	
o-Terphenyl	84-15-1	85	%	70-130	01.30.2021 09:56	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-010	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 19:47	% Moisture:	
Seq Number:	3149157			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.28.2021 03:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.28.2021 03:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.28.2021 03:16	
4-Bromofluorobenzene	460-00-4	127	%	70-130	01.28.2021 03:16	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id: **SW-5** Matrix: Soil Date Received:01.26.2021 15:28

Lab Sample Id: 686125-011 Date Collected: 01.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:

Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	99.2	mg/kg	01.27.2021 16:47		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.29.2021 17:00 % Moisture:

Seq Number: 3149589 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	01.30.2021 10:17	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	01.30.2021 10:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.30.2021 10:17	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.30.2021 10:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	01.30.2021 10:17	
o-Terphenyl	84-15-1	103	%	70-130	01.30.2021 10:17	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 686125

COG Operating LLC, Artesia, NM

Asio Otus Fed 3H

Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	01.26.2021 15:28
Lab Sample Id:	686125-011	Date Collected:	01.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 19:47	% Moisture:	
Seq Number:	3149157			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.28.2021 03:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.28.2021 03:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.28.2021 03:39	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.28.2021 03:39	

eurofins | Environment Testing Xenco

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

eurofins | Environment Testing Xenco

QC Summary 686125

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Solid — Date Prep: 01.26.2021
MB Sample Id: 7720054-1-BLK — LCS Sample Id: 7720054-1-BKS — LCSD Sample Id: 7720054-1-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	200	213	107	210	105	90-110	1	20	mg/kg	01.27.2021 14:14	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Soil — Date Prep: 01.26.2021
Parent Sample Id: 685999-001 — MS Sample Id: 685999-001 S — MSD Sample Id: 685999-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1970	403	2360	97	2340	93	90-110	1	20	mg/kg	01.27.2021 14:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Soil — Date Prep: 01.26.2021
Parent Sample Id: 686125-004 — MS Sample Id: 686125-004 S — MSD Sample Id: 686125-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	338	198	552	108	525	93	90-110	5	20	mg/kg	01.27.2021 15:50	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149589 — Matrix: Solid — Date Prep: 01.29.2021
MB Sample Id: 7720480-1-BLK — LCS Sample Id: 7720480-1-BKS — LCSD Sample Id: 7720480-1-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	891	89	894	89	70-130	0	20	mg/kg	01.30.2021 04:28	
Diesel Range Organics	<50.0	1000	877	88	854	85	70-130	3	20	mg/kg	01.30.2021 04:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		102		100		70-130	%	01.30.2021 04:28
o-Terphenyl	111		115		114		70-130	%	01.30.2021 04:28

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149589 — Matrix: Solid — Date Prep: 01.29.2021
MB Sample Id: 7720480-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.30.2021 04:06	

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

eurofins | Environment Testing Xenco

QC Summary 686125

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Seq Number: 3149589 Matrix: Soil Date Prep: 01.29.2021

Parent Sample Id: 686125-001 MS Sample Id: 686125-001 S MSD Sample Id: 686125-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<49.8	996	988	99	921	92	70-130	7	20	mg/kg	01.30.2021 05:55	
Diesel Range Organics	<49.8	996	866	87	856	86	70-130	1	20	mg/kg	01.30.2021 05:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		81		70-130	%	01.30.2021 05:55
o-Terphenyl	90		79		70-130	%	01.30.2021 05:55

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149067 Matrix: Solid Date Prep: 01.26.2021

MB Sample Id: 7720055-1-BLK LCS Sample Id: 7720055-1-BKS LCSD Sample Id: 7720055-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.0985	99	70-130	3	35	mg/kg	01.26.2021 18:00	
Toluene	<0.00200	0.100	0.103	103	0.0969	97	70-130	6	35	mg/kg	01.26.2021 18:00	
Ethylbenzene	<0.00200	0.100	0.105	105	0.0964	96	71-129	9	35	mg/kg	01.26.2021 18:00	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.193	97	70-135	7	35	mg/kg	01.26.2021 18:00	
o-Xylene	<0.00200	0.100	0.104	104	0.0977	98	71-133	6	35	mg/kg	01.26.2021 18:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		96		70-130	%	01.26.2021 18:00
4-Bromofluorobenzene	104		103		97		70-130	%	01.26.2021 18:00

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149157 Matrix: Solid Date Prep: 01.26.2021

MB Sample Id: 7720056-1-BLK LCS Sample Id: 7720056-1-BKS LCSD Sample Id: 7720056-1-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	0.0784	78	0.0776	78	70-130	1	35	mg/kg	01.27.2021 17:03	
Toluene	<0.00200	0.100	0.0908	91	0.0915	92	70-130	1	35	mg/kg	01.27.2021 17:03	
Ethylbenzene	<0.00200	0.100	0.0991	99	0.0988	99	71-129	0	35	mg/kg	01.27.2021 17:03	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.212	106	70-135	0	35	mg/kg	01.27.2021 17:03	
o-Xylene	<0.00200	0.100	0.108	108	0.107	107	71-133	1	35	mg/kg	01.27.2021 17:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		90		89		70-130	%	01.27.2021 17:03
4-Bromofluorobenzene	122		116		117		70-130	%	01.27.2021 17:03

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

eurofins | Environment Testing Xenco

QC Summary 686125

COG Operating LLC

Asio Otus Fed 3H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149067 Matrix: Soil Date Prep: 01.26.2021

Parent Sample Id: 685783-040 MS Sample Id: 685783-040 S MSD Sample Id: 685783-040 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0877	87	0.0779	78	70-130	12	35	mg/kg	01.26.2021 18:45	
Toluene	0.00372	0.101	0.0873	83	0.0730	69	70-130	18	35	mg/kg	01.26.2021 18:45	X
Ethylbenzene	<0.00201	0.101	0.0842	83	0.0678	68	71-129	22	35	mg/kg	01.26.2021 18:45	X
m,p-Xylenes	<0.00402	0.201	0.171	85	0.131	66	70-135	26	35	mg/kg	01.26.2021 18:45	X
o-Xylene	<0.00201	0.101	0.0895	89	0.0677	68	71-133	28	35	mg/kg	01.26.2021 18:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		97		70-130	%	01.26.2021 18:45
4-Bromofluorobenzene	98		100		70-130	%	01.26.2021 18:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149157 Matrix: Soil Date Prep: 01.26.2021

Parent Sample Id: 685933-001 MS Sample Id: 685933-001 S MSD Sample Id: 685933-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	1.00	0.960	96	0.835	84	70-130	14	35	mg/kg	01.27.2021 17:48	
Toluene	0.104	1.00	1.11	101	0.964	86	70-130	14	35	mg/kg	01.27.2021 17:48	
Ethylbenzene	0.111	1.00	1.19	108	1.05	94	71-129	13	35	mg/kg	01.27.2021 17:48	
m,p-Xylenes	0.240	2.00	2.56	116	2.24	100	70-135	13	35	mg/kg	01.27.2021 17:48	
o-Xylene	0.140	1.00	1.29	115	1.14	100	71-133	12	35	mg/kg	01.27.2021 17:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	01.27.2021 17:48
4-Bromofluorobenzene	114		117		70-130	%	01.27.2021 17:48

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

686125

Analysis Request of Chain of Custody Record

Page 1 of 1

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas

Tel (432) 683-7443

Client Name: COG	Site Manager: Jacqui Harris
Project Name: Asio Otus Fed 3H	
Project Location: (county, state) Eddy, 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
	CS-1	1.26.21			X			X			X	X	X	
	CS-2	1.26.21			X			X			X	X	X	
	CS-3	1.26.21			X			X			X	X	X	
	CS-4	1.26.21			X			X			X	X	X	
	CS-5	1.26.21			X			X			X	X	X	
	CS-6	1.26.21			X			X			X	X	X	
	SW-1	1.26.21			X			X			X	X	X	
	SW-2	1.26.21			X			X			X	X	X	
	SW-3	1.26.21			X			X			X	X	X	
	SW-4	1.26.21			X			X			X	X	X	
	SW-5	1.26.21			X			X			X	X	X	

Relinquished by: Jacqui Harris	Date: 3/26/21	Time: 15:28	Received by: Clae Coffey 1-26-21 1528
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 0.4/0.2

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 #: _____

Inter-Office Shipment

IOS Number : 77159

Date/Time: 01.27.2021
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Cloe Clifton
Delivery Priority:
Air Bill No.:

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
686125-001	S	CS-1	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-002	S	CS-2	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-003	S	CS-3	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-004	S	CS-4	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-005	S	CS-5	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-006	S	CS-6	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-007	S	SW-1	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-008	S	SW-2	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-009	S	SW-3	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-010	S	SW-4	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	
686125-011	S	SW-5	01.26.2021 00:00	SW8015MOD_NM	TPH By SW8015 Mod	01.28.2021	02.09.2021	JKR	PHCC10C28 PHCC28C3	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton
Cloe Clifton

Date Relinquished: 01.27.2021

Received By: Jessica Kramer
Jessica Kramer

Date Received: 01.28.2021

Cooler Temperature: 0.6

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 77159

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

Sent By: Cloe Clifton **Date Sent:** 01.27.2021 02.42 PM

Received By: Jessica Kramer **Date Received:** 01.28.2021 10.53 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Jessica Kramer Date: 01.28.2021

Jessica Kramer

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 01.26.2021 03.28.00 PM

Work Order #: 686125

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)?	.2	
#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)?	**Yes**	TPH samples sent to Midland.
#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: Cloe Clifton Date: 01.26.2021

Checklist reviewed by: Jessica Kramer Date: 01.28.2021

Jessica Kramer

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: 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: Robert Hamlet Date: _____

Printed Name: _____ Title: _____

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 26042

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 26042
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2032945645 ASIO OTUS FEDERAL 003H, thank you. This closure is approved.	8/13/2021