

November 4, 2020

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

Kelsey Wade Bureau of Land Management, CFO 620 E. Green Street Carlsbad, NM 88220

Closure Report

Screech Owl Federal CTB Incident #: NRM2011862082 DOR: April 10, 2020 GPS: 32.039359 -104.231669 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 due to packing failure at the Screech Owl Federal Central Tank Battery. The release is located in Unit Letter K, Section 18, Township 26 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.03912 North and -104.23191 West.

BACKGROUND

The release was discovered on April 10, 2020. A C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD) and the Bureau of Land Management (BLM). A packing failure on a transfer pump resulted in the release of approximately twenty-two (22) barrels (bbls) of oil. The fluid impacted the lined containment and over sprayed onto the well pad.

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701 | P 432.683.7443 | F 432.683.7441

GROUNDWATER AND REGULATORY FRAMEWORK

According to the United States Geological Survey (USGS) the nearest water well (320320104145101) is located approximately 1.4 miles northwest of the release point and indicates that groundwater in the project vicinity is approximately thirteen (13) feet below ground surface (BGS). The water well information is shown in Appendix B.

A risk based evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation, a high potential for cave karst exists at the site (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	13

Delineation and Closure Criteria:

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

PROPOSED WORK PLAN

- The impacted area was excavated to depths from one and one-half (1.5) to two (2) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from the bottom and sidewalls of the excavated areas per NMED 19.15.29.13.
- The excavation will be backfilled with clean "like" material and contoured to match the surrounding terrain.

SITE RECLAMATION AND RESTORATION

All of the fluid remained on the well pad. No reclamation activities will be required at this site.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Screech Owl Federal CTB incident that occurred on April 10, 2020.

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

Sincerely,

Sheldon gittom

Sheldon L. Hitchcock HSE Coordinator slhitchcock@concho.com

FIGURES



Released to Imaging: 4/5/2021 2:29:57 PM

TABLES

Table 1 COG Operating LLC. Screech Owl CTB Eddy County, New Mexico

Sample		One la Data	Soil	Status			TP	H (mg/kg)				Benzene	Total BTEX	Chloride
Sample ID	Depth (ft)	Sample Date	In-Situ	Removed	GRO	DRO	MRO	Total	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD RRAL L	imits (mg/kg)				-	-	-	100	-	-	100	10	50	600
B-1	1.5	10/2/2020	Х		<10.0	42.6	<10.0	42.6	<10.0	42.6	42.6	<0.050	<0.300	192.0
B-2	1.5	10/2/2020	Х		<10.0	25.7	<10.0	25.7	<10.0	25.7	25.7	<0.050	<0.300	192.0
B-3	1.5	10/2/2020	Х		<10.0	22.7	<10.0	22.7	<10.0	22.7	22.7	<0.050	<0.300	192.0
B-4	1.5	10/2/2020	Х		<10.0	38.6	<10.0	38.6	<10.0	38.6	38.6	<0.050	<0.300	192.0
B-5	1.5	10/2/2020	Х		<10.0	34.3	<10.0	34.3	<10.0	34.3	34.3	<0.050	<0.300	192.0
B-6	1.5	10/2/2020	Х		<10.0	34.9	<10.0	34.9	<10.0	34.9	34.9	<0.050	<0.300	192.0
B-7	2	7/22/2020	х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	40.6
B-8	1.5	10/2/2020		Х	<10.0	183	39.2	222.2	<10.0	183	183.0	<0.050	<0.300	112.0
B-9	2	7/22/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	29.7
B-10	2	7/22/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	34.4
B-11	2	7/22/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	48.7
B-8	2	10/13/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	19.7
SW-1	N/A	9/29/2020	Х		<50.2	<50.2	<50.2	0.0	<50.2	<50.2	0.0	<0.002	<0.002	209.0
SW-2	N/A	9/29/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	216.0
SW-3	N/A	9/29/2020	Х		<50.3	<50.3	<50.3	0.0	<50.3	<50.3	0.0	<0.002	<0.002	257.0
SW-4	N/A	9/29/2020	Х		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	181.0
SW-5	N/A	9/29/2020	Х		<49.8	<49.8	<49.8	0.0	<49.8	<49.8	0.0	<0.002	<0.002	241.0

APPENDIX A

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

State of New Mexico Energy Minerals and Natural **Resources Department**

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

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

)

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Longitude

Latitude	Longitude
	(NAD 83 in decimal degrees to 5 decimal places)
0' N	

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		

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Oil Conservation Division

Incident ID	
District RP	
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Application ID	

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by $19.15.29.7(A)$ NMAC?	
If YES, was immediate n	otice 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: Sheldon guitan	Date:
email:	Telephone:
OCD Only	
Received by:	Date:

Received by OCD: 11/5/2020 7:29:42 AM Form C-141 State of New Mexico

Oil Conservation Division

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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.

Received by OCD: 11/5/202	20 7:29:42 AM			Page 12 of 82
Form C-141	State of New Mexico	state of New Mexico		
Page 4 Oil	Oil Conservation Division	l	District RP	
			Facility ID	
			Application ID	
I hereby certify that the infor regulations all operators are public health or the environr failed to adequately investig addition, OCD acceptance of and/or regulations. Printed Name: Signature:	rmation given above is true and complete to th required to report and/or file certain release no nent. The acceptance of a C-141 report by the ate and remediate contamination that pose a th f a C-141 report does not relieve the operator of	e best of my knowledge otifications and perform of OCD does not relieve th reat to groundwater, sur- of responsibility for com Title:	and understand that purse corrective actions for rele to operator of liability sho cace water, human health oliance with any other fea	uant to OCD rules and eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only Received by:		Date:		

Received by OCD: 11/5/2020 7:29:42 AM Form C-141 State of New Mexico

Oil Conservation Division

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District RP	
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Application ID	

Remediation Plan

<u>Remediation Plan Checklist</u> : Each of the following items must b	e included in the plan.
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation poin Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29. Proposed schedule for remediation (note if remediation plan times) 	ts 12(C)(4) NMAC heline is more than 90 days OCD approval is required)
Deferral Requests Only: Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around p deconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file which may endanger public health or the environment. The accepta liability should their operations have failed to adequately investigat surface water, human health or the environment. In addition, OCD responsibility for compliance with any other federal, state, or local	te to the best of my knowledge and understand that pursuant to OCD certain release notifications and perform corrective actions for releases ance of a C-141 report by the OCD does not relieve the operator of e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of laws and/or regulations.
Printed Name:	Title:
Signature: Sheldon Hitan	Date:
email:	Telephone:
Received by:	Date:
Approved Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:

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Oil Conservation Division

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Facility ID	
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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.

<u>Closure Report Attachment Checklist</u> : Each of the following	items must be included in the closure report.					
\Box 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 OD	C 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 compliand regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regul restore, reclaim, and re-vegetate the impacted surface area to the concordance with 19.15.29.13 NMAC including notification to the OP rinted Name:	ete to the best of my knowledge and understand that pursuant to OCD rules in release notifications and perform corrective actions for releases which f a C-141 report by the OCD does not relieve the operator of liability emediate contamination that pose a threat to groundwater, surface water, f a C-141 report does not relieve the operator of responsibility for lations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete. Title:					
Sheldon Autom						
Signature:						
email:	Telephone:					
OCD Only						
Received by:	Date:					
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible //or regulations.					
Closure Approved by:	Date:					
Printed Name:	Title:					

APPENDIX B



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USGS 320320104145101 26S.26E.12.34120



. Released to Imaging: 4/5/2021-2:29epideMof approved data



eurofins Environment Testing Xenco

Sheldon Hitchcock

Eddy County, New Mexico

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 673855

COG Operating LLC, Artesia, NM

Project Name: Screech OWI CTB

 Date Received in Lab:
 Tue 09.29.2020 16:12

 Report Date:
 10.01.2020 12:01

Project Manager: Jessica Kramer

	Lab Id:	673855-001		673855-00	02	673855-0	003	673855-0	04	673855-0	05	
Analysis Requested	Field Id:	SW-1		SW-2		SW-3		SW-4		SW-5		
Analysis Requesieu	Depth:											
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		
	Sampled:	09.29.2020	11:15	09.29.2020	11:20	09.29.2020	11:22	09.29.2020	11:24	09.29.2020	11:26	
BTEX by EPA 8021B	Extracted:	09.30.2020	09:50	09.30.2020 (09:50	09.30.2020	09:50	09.30.2020	09:50	09.30.2020	09:50	
	Analyzed:	09.30.2020	19:49	09.30.2020 2	20:11	09.30.2020	20:34	09.30.2020	20:56	09.30.2020	21:18	
	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	< 0.00200	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	
Ethylbenzene		< 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	< 0.00401	0.00401	< 0.00399	0.00399	< 0.00399	0.00399	< 0.00401	0.00401	
o-Xylene		< 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	
Total BTEX		< 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:	09.29.2020	17:26	09.29.2020	17:26	09.29.2020	17:26	09.29.2020	17:26	09.29.2020	17:26	
	Analyzed:	09.29.2020	23:19	09.29.2020 2	23:36	09.29.2020	23:41	09.29.2020	23:47	09.29.2020	23:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		209	9.92	216	10.0	257	10.0	181	9.98	241	9.92	
TPH By SW8015 Mod	Extracted:	09.29.2020	16:30	09.29.2020	16:30	09.29.2020	16:30	09.29.2020	16:30	09.29.2020	16:30	
	Analyzed:	<i>l:</i> 09.30.2020 03:04		09.30.2020 (03:24	09.30.2020	03:44	09.30.2020	04:04	09.30.2020	04:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons		<50.2	50.2	<50.0	50.0	<50.3	50.3	<50.0	50.0	<49.8	49.8	
Diesel Range Organics		<50.2	50.2	<50.0	50.0	<50.3	50.3	<50.0	50.0	<49.8	49.8	
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.0	50.0	<50.3	50.3	<50.0	50.0	<49.8	49.8	
Total TPH		<50.2	50.2	<50.0	50.0	<50.3	50.3	<50.0	50.0	<49.8	49.8	

BRL - Below Reporting Limit

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

Jession Vramer

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Environment Testing Xenco

Analytical Report 673855

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Screech OWI CTB

10.01.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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

10.01.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **673855** Screech OWI CTB Project Address: Eddy County, New Mexico

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673855. 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. 673855 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,

fession kenner

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 673855

COG Operating LLC, Artesia, NM

Screech OWI CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-1	S	09.29.2020 11:15		673855-001
SW-2	S	09.29.2020 11:20		673855-002
SW-3	S	09.29.2020 11:22		673855-003
SW-4	S	09.29.2020 11:24		673855-004
SW-5	S	09.29.2020 11:26		673855-005

eurofins Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating LLC Project Name: Screech OWI CTB

Project ID: Work Order Number(s): 673855 Report Date: 10.01.2020 Date Received: 09.29.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Xenco

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id: SW-1		Matrix:	Soil			Date Received:09.	29.2020 16	.12
Lab Sample Id: 673855-001		Date Co	llected: 09.29	0.2020 11:15				
Analytical Method: Chloride by E	EPA 300					Prep Method: E30)0P	
Tech: MAB						% Moisture:		
Analyst: MAB		Date Pre	ep: 09.29	.2020 17:26		Basis: We	t Weight	
Seq Number: 3138471								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	209	9.92		mg/kg	09.29.2020 23:19		1
Tech:DTHAnalyst:DTHSeq Number:3138454		Date Pre	ep: 09.29	0.2020 16:30		% Moisture: Basis: We	t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2		mg/kg	09.30.2020 03:04	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2		mg/kg	09.30.2020 03:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2		mg/kg	09.30.2020 03:04	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	09.30.2020 03:04	U	1
Surrogate	С	as Number	% Recovery	Units	Limits	s Analysis Date	Flag	
1-Chlorooctane	11	11-85-3	104	%	70-135	09.30.2020 03:0	4	

94

%

70-135

09.30.2020 03:04

84-15-1

o-Terphenyl

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id: Lab Sample Id	SW-1 1: 673855-001		Matrix: Date Collected	Soil : 09.29.2020 11:15	Date Received	1:09.29.2020 16:12
Analytical Me Tech:	thod: BTEX by EPA 802 MAB	1B			Prep Method: % Moisture:	SW5035A
Analyst: Seg Number:	MAB 3138532		Date Prep:	09.30.2020 09:50	Basis:	Wet Weight
Demonstra		Cog Number D	ogult DI	T T *4		

rarameter	Cas Nullibe	er Kesuit	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	09.30.2020 19:49	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.30.2020 19:49	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	93	%	70-130	09.30.2020 19:49		
1,4-Difluorobenzene		540-36-3	102	%	70-130	09.30.2020 19:49		

Seq Number: 3138454

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id: Lab Sample Id	SW-2 d: 673855-002		Matrix: Date Collec	Soil eted: 09.29.2020 11:20		Date Received	1:09.29.2	2020 16:	12
Analytical Me Tech: Analyst: Seq Number:	ethod: Chloride by EPA MAB MAB 3138471	300	Date Prep:	09.29.2020 17:26		Prep Method: % Moisture: Basis:	E300P Wet W	eight	
Parameter		Cas Number	Result	RL	Units	Analysis D	ate 1	Flag	Dil
Chloride		16887-00-6	216	10.0	mg/kg	09.29.2020 2	3:36		1
Analytical Me Tech:	ethod: TPH By SW8015 DTH	Mod		00.00.0000.1< 00		Prep Method: % Moisture:	SW801	5P	
Analyst:	DTH		Date Prep:	09.29.2020 16:30		Basis:	Wet W	eight	

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0		mg/kg	09.30.2020 03:24	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0		mg/kg	09.30.2020 03:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0		mg/kg	09.30.2020 03:24	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	09.30.2020 03:24	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	117	%	70-135	09.30.2020 03:24		
o-Terphenyl		84-15-1	105	%	70-135	09.30.2020 03:24		

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id:SW-2Lab Sample Id:673855-002			Matrix: Date Collected	Soil Date Received:09.29.202 ted: 09.29.2020 11:20				
Analytical Me Tech:	thod: BTEX by EPA 802 MAB	1B			Prep Method: % Moisture:	SW5035A		
Analyst: Seq Number:	MAB 3138532		Date Prep:	09.30.2020 09:50	Basis:	Wet Weight		
Donomotor		Cos Number P	ogult DI	T T 1				

rarameter	Cas Nullibe	er Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	09.30.2020 20:11	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.30.2020 20:11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	92	%	70-130	09.30.2020 20:11		
1,4-Difluorobenzene		540-36-3	102	%	70-130	09.30.2020 20:11		

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id: Lab Sample Id	SW-3 1: 673855-003		Matrix: Date Colle	Soil cted: 09.29.2020 11:22		Date Received	:09.29.2020 1	6:12
Analytical Me Tech: Analyst: Seq Number:	thod: Chloride by MAB MAB 3138471	EPA 300	Date Prep:	09.29.2020 17:26		Prep Method: % Moisture: Basis:	E300P Wet Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Da	ite Flag	Dil
Chloride		16887-00-6	257	10.0	mg/kg	09.29.2020 23	3:41	1
Analytical Me	ethod: TPH By SW	78015 Mod				Prep Method:	SW8015P	
Tech: Analyst: Seq Number:	DTH DTH 3138454		Date Prep:	09.29.2020 16:30		% Moisture: Basis:	Wet Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Da	ite Flag	Dil
Gasoline Range	Hydrocarbons	PHC610	<50.3	50.3	mg/kg	09.30.2020 03	3:44 U	1

ē ;					00				
Diesel Range Organics	C10C28DRO	<50.3	50.3		mg/kg	09.30.2020 03:44	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3		mg/kg	09.30.2020 03:44	U	1	
Total TPH	PHC635	<50.3	50.3		mg/kg	09.30.2020 03:44	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	106	%	70-135	09.30.2020 03:44			
o-Terphenyl		84-15-1	95	%	70-135	09.30.2020 03:44			

Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id:	SW-3		Matrix:	Soil	Date Receive	d:09.29.2020 16:	12
Lab Sample I	d: 673855-003		Date Collected	1:09.29.2020 11:22			
Analytical Me	ethod: BTEX by EPA 802	21B			Prep Method:	SW5035A	
Tech:	MAB				% Moisture:		
Analyst:	MAB		Date Prep:	09.30.2020 09:50	Basis:	Wet Weight	
Seq Number:	3138532						
Paramotor		Cas Number	Result DI	T	nita Analysia D	loto Elog	ъя

rarameter	Cas Nullibe	er Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	09.30.2020 20:34	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.30.2020 20:34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	91	%	70-130	09.30.2020 20:34		
1,4-Difluorobenzene		540-36-3	102	%	70-130	09.30.2020 20:34		

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COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id:	SW-4		Matrix:	Soil			Date Receive	d:09.2	9.2020 16	:12
Lab Sample Id	: 673855-004		Date Co	llected: 09.29	9.2020 11:24					
Analytical Me	thod: Chloride by EPA	300					Prep Method:	E300)P	
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Pre	ep: 09.29	9.2020 17:26		Basis:	Wet	Weight	
Seq Number:	3138471									
Parameter		Cas Number	Result	RL		Units	Analysis D	ate	Flag	Dil
Chloride		16887-00-6	181	9.98		mg/kg	09.29.2020 2	3:47		1

Analytical Method: 7	TPH By SW8015 N	Mod					Prep Method: S	W8015P	
Tech: DTH							% Moisture:		
Analyst: DTH			Date Pr	rep: 0	9.29.2020 16:30		Basis: V	Vet Weight	
Seq Number: 313845	54								
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocar	bons	PHC610	<50.0	50.0)	mg/kg	09.30.2020 04:0	4 U	1
Diesel Range Organics		C10C28DRO	<50.0	50.0)	mg/kg	09.30.2020 04:0	4 U	1
Motor Oil Range Hydrocarbo	ns (MRO)	PHCG2835	<50.0	50.0)	mg/kg	09.30.2020 04:0	4 U	1
Total TPH		PHC635	<50.0	50.0)	mg/kg	09.30.2020 04:0	4 U	1
Surrogate			Cas Number	% Recove	ery Units	Limits	s Analysis Da	te Flag	
1-Chlorooctane			111-85-3	115	%	70-135	09.30.2020 04	:04	
o-Terphenyl			84-15-1	107	%	70-135	09.30.2020 04	:04	

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COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id: Lab Sample Id:	SW-4 : 673855-004	Matrix: Date Collected	Soil l: 09.29.2020 11:24	Date Received	1:09.29.2020 16:12
Analytical Metl Tech:	hod: BTEX by EPA 8021B MAB			Prep Method: % Moisture:	SW5035A
Analyst:	MAB	Date Prep:	09.30.2020 09:50	Basis:	Wet Weight
Seq Number:	3138532				

Parameter	Cas Numbe	er Kesun	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	09.30.2020 20:56	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.30.2020 20:56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	09.30.2020 20:56		
4-Bromofluorobenzene		460-00-4	90	%	70-130	09.30.2020 20:56		

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COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id:	SW-5		Matrix: Soil			Date Received:09.29.2020 16:12						
Lab Sample Id:	673855-005		Date Colle	ected: 09.29.2020 11:26								
Analytical Met	hod: Chloride by E	PA 300				Prep Method: E300)P					
Tech:	MAB					% Moisture:						
Analyst:	MAB		Date Prep:	09.29.2020 17:26		Basis: Wet	Weight					
Seq Number:	3138471		-									
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil				
Chloride		16887-00-6	241	9.92	mg/kg	09.29.2020 23:52		1				
Analytical Met Tech: Analyst: Seq Number:	hod: TPH By SW8 DTH DTH 3138454	015 Mod	Date Prep:	09.29.2020 16:30		Prep Method: SW8 % Moisture: Basis: Wet	8015P Weight					
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil				
Gasoline Range H	ydrocarbons	PHC610	<49.8	49.8	mg/kg	09.30.2020 04:24	U	1				
Diesel Range Org	anics	C10C28DRO	<49.8	49.8	mg/kg	09.30.2020 04:24	U	1				
Motor Oil Range Hy	drocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.30.2020 04:24	U	1				
Total TPH		PHC635	<49.8	49.8	mg/kg	09.30.2020 04:24	U	1				
Surrogate		Ca	s Number %	Recovery Units	Limit	s Analysis Date	Flag					

117

113

%

%

70-135

70-135

09.30.2020 04:24

09.30.2020 04:24

111-85-3

84-15-1

1-Chlorooctane

o-Terphenyl

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Certificate of Analytical Results 673855

COG Operating LLC, Artesia, NM Screech OWI CTB

Sample Id:	SW-5		Matrix:	Soil		Date Received	1:09.29	.2020 16:	12		
Lab Sample I	l: 673855-005		Date Collected	Date Collected: 09.29.2020 11:26							
Analytical Me	ethod: BTEX by EPA 802	21B				Prep Method:	SW50)35A			
Tech:	MAB					% Moisture:					
Analyst:	MAB		Date Prep:	09.30.2020 09:50		Basis:	Wet V	Veight			
Seq Number:	3138532										
Parameter		Cas Number	Result RI		Units	Analysis D	ate	Flag	Dil		

T ar ameter	Cas I (unibe	i ittouit	KL		Units	Analysis Date	Flag	Dii
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	09.30.2020 21:18	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	09.30.2020 21:18	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	97	%	70-130	09.30.2020 21:18		
1,4-Difluorobenzene		540-36-3	101	%	70-130	09.30.2020 21:18		

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 Det	ection Limit	LOD Limit of Detection					
PQL	Practical Quantitation Limit	MQL Method Qua	antitation Limit	LOQ Limit of Quantitation	n				
DL	Method Detection Limit								
NC	Non-Calculable								
SMP	Client Sample		BLK	Method Blank					
BKS/I	LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	catory Control Sample Duplicate				
MD/S	D Method Duplicate/Samp	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate				
+ NE	ELAC certification not offered	for this compound.							

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 673855

COG Operating LLC Screech OWI CTB

Analytical Method: Seq Number:	Chloride by 3138471	y EPA 30	0		Matrix:	Solid			Pr	ep Metho Date Pro	od: E30 ep: 09.2	0P 29.2020		
MB Sample Id:	7712349-1-I	BLK		LCS San	nple Id:	7712349-1	I-BKS		LCSI	D Sample	e Id: 771	2349-1-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	250	100	251	100	90-110	0	20	mg/kg	09.29.2020 23:08		
Analytical Method:	Chloride by	y EPA 30	0						Pr	ep Metho	od: E30	OP		
Seq Number:	3138471				Matrix:	Soil				Date Pro	ep: 09.2	29.2020		
Parent Sample Id:	673855-001			MS Sar	nple Id:	673855-00	01 S		MSI	D Sample	e Id: 673	855-001 SD		
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Chloride		209	199	407	99	408	100	90-110	0	20	mg/kg	09.29.2020 23:25		
Analytical Method:	Chloride by	y EPA 30	0			a			Pr	ep Metho	od: E30	0P		
Seq Number: 31384/1 Derent Semple Id: 673861.006			MC Com	Matrix:	5011 673861-006 S			Date Prep: 09.29.2020						
Parent Sample Id:	6/3861-006			MS Sal	inple fu:	0/3801-00	05		MSI	D Sample	e Iu: 075	801-000 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	201	213	106	213	106	90-110	0	20	mg/kg	09.30.2020 00:41		
Analytical Method:	TPH By SW	V8015 M	od							Prep Method: SW8015P				
Seq Number:	3138454			LOGA	Matrix: Solid				Date Prep: 09.29.2020					
MB Sample Id:	7712307-1-I	BLK		LCS San	nple Id:	7712307-1-BKS			LCSD Sample Id: 7712307-1-BSI					
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Gasoline Range Hydroca	arbons	< 50.0	1000	1080	108	1030	103	70-135	5	35	mg/kg	09.29.2020 20:58		
Diesel Range Organics		<50.0	1000	1130	113	1090	109	70-135	4	35	mg/kg	09.29.2020 20:58		
Surrogate		MB %Rec	MB Flag	L4 %	CS Rec	LCS Flag	LCSI %Re) LCS c Flag	D Li g	mits	Units	Analysis Date		
1-Chlorooctane		92		1	22		117		70-	-135	%	09.29.2020 20:58		
o-Terphenyl		90		1	05		104		70-	-135	%	09.29.2020 20:58		
Analytical Method:	TPH By SW	V8015 M	od						Pr	en Metho	od: SW	8015P		
Seq Number:	3138454				Matrix:	Solid				Date Pro	ep: 09.2	29.2020		
-				MB San	nple Id:	7712307-1	I-BLK							
Parameter				MB Recult							Units	Analysis	Flag	
Motor Oil Range Hydrocarh				result								Date		
	oons (MRO)			<50.0							ma/ka	09.29.2020 21:39		

MS/MSD Percent Recovery

Relative Percent Difference LCS/LCSD Recovery Log Difference

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

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

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Environment Testing

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QC Summary 673855

COG Operating LLC

Screech OWI CTB

Analytical Method:	TPH By SW8015 Mod		
Seq Number:	3138454	Matrix:	Soil
Parent Sample Id:	673797-026	MS Sample Id:	673797-026 S
	Demont Se		

 Prep Method:
 SW8015P

 Date Prep:
 09.29.2020

 MSD Sample Id:
 673797-026 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	<50.3	1010	1080	107	1080	108	70-135	0	35	mg/kg	09.29.2020 22:20	
Diesel Range Organics	< 50.3	1010	1160	115	1140	114	70-135	2	35	mg/kg	09.29.2020 22:20	
Surrogate			M %1	IS Rec	MS Flag	MSD %Ree	MSE c Flag) Li g	imits	Units	Analysis Date	
1-Chlorooctane			12	25		125		70	-135	%	09.29.2020 22:20	
o-Terphenyl			1	13		112		70	-135	%	09.29.2020 22:20	

Analytical Michiou. DIEA by ELA 6021D	Prep Method: SW5035A							
Seq Number: 3138532 Matrix: Solid	Date Prep: 09.30.2020							
MB Sample Id: 7712341-1-BLK LCS Sample Id: 7712341-1-BKS	LCSD Sample Id: 7712341-1-BSD							
MB Spike LCS LCSD LCSD Limits Parameter Result Amount Result %Rec Result %Rec	%RPD RPD Limit	Units	Analysis Flag Date					
Benzene <0.00200 0.100 0.100 100 0.0991 99 70-130	1 35	mg/kg	09.30.2020 11:36					
Toluene <0.00200 0.100 0.0961 96 0.0957 96 70-130	0 35	mg/kg	09.30.2020 11:36					
Ethylbenzene <0.00200 0.100 0.0884 88 0.0879 88 71-129	1 35	mg/kg	09.30.2020 11:36					
m,p-Xylenes <0.00400 0.200 0.176 88 0.175 88 70-135	1 35	mg/kg	09.30.2020 11:36					
o-Xylene <0.00200 0.100 0.0887 89 0.0882 88 71-133	1 35	mg/kg	09.30.2020 11:36					
SurrogateMBMBLCSLCSLCSDLCSD%RecFlag%RecFlag%RecFlag	Limits	Units	Analysis Date					
1,4-Difluorobenzene 100 98 99	70-130	%	09.30.2020 11:36					
4-Bromofluorobenzene 92 89 87	70-130	%	09.30.2020 11:36					

Analytical Method:	BTEX by EPA 8021			Prep Method: SW5035A									
Seq Number:	3138532			Matrix: Soil					Date Prep: 09.30.2020				
Parent Sample Id:	nt Sample Id: 673854-001			MS Sample Id:		673854-001 S			MSD Sample Id: 673854-001 SD				
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Benzene	< 0.00201	0.101	0.103	102	0.103	104	70-130	0	35	mg/kg	09.30.2020 13:05		
Toluene	< 0.00201	0.101	0.0988	98	0.0990	100	70-130	0	35	mg/kg	09.30.2020 13:05		
Ethylbenzene	< 0.00201	0.101	0.0918	91	0.0912	92	71-129	1	35	mg/kg	09.30.2020 13:05		
m,p-Xylenes	< 0.00402	0.201	0.184	92	0.181	91	70-135	2	35	mg/kg	09.30.2020 13:05		
o-Xylene	< 0.00201	0.101	0.0923	91	0.0913	92	71-133	1	35	mg/kg	09.30.2020 13:05		
Surrogate			N %	1S Rec	MS Flag	MSE %Re) MSE _C Flag) Li g	imits	Units	Analysis Date		
1,4-Difluorobenzene			ç	99		98		70	-130	%	09.30.2020 13:05		

91

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

4-Bromofluorobenzene

 $\begin{array}{l} [D] = 100*(C-A) \ / \ B \\ RPD = 200* \ | \ (C-E) \ / \ (C+E) \ | \\ [D] = 100*(C) \ / \ [B] \\ Log \ Diff. = Log(Sample \ Duplicate) \ - \ Log(Original \ Sample) \end{array}$

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

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

.

09.30.2020 13:05

. Released to Imaging: 4/5/2021 2:29:57 PM

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87

Final 1.000

70-130

%




October 06, 2020

SHELDON HITCHCOCK COG OPERATING P. O. BOX 1630 ARTESIA, NM 88210

RE: SCREECH OWL CTB

Enclosed are the results of analyses for samples received by the laboratory on 10/05/20 11:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/05/2020	Sampling Date:	10/02/2020
Reported:	10/06/2020	Sampling Type:	Soil
Project Name:	SCREECH OWL CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM		

Sample ID: B - 1 (H002624-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 73.3-129)						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	42.6	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	92.2	% 44.3-144	4						
Surrogate: 1-Chlorooctadecane	90.0	% 42.2-150	5						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		COG OPEF	RATING		
		SHELDON	HITCHCOCK		
		P. O. BOX	1630		
		ARTESIA N	NM, 88210		
		Fax To:	NONE		
Received:	10/05/2020			Sampling Date:	10/02/2020
Reported:	10/06/2020			Sampling Type:	Soil
Project Name:	SCREECH OWL CTB			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM				

Sample ID: B - 2 (H002624-02)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	25.7	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	74.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	71.5	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPEF	RATING		
		SHELDON	HITCHCOCK		
		P. O. BOX	1630		
		ARTESIA N	NM, 88210		
		Fax To:	NONE		
Received:	10/05/2020			Sampling Date:	10/02/2020
Reported:	10/06/2020			Sampling Type:	Soil
Project Name:	SCREECH OWL CTB			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM				

Sample ID: B - 3 (H002624-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	22.7	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	91.5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	88.6	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPERA SHELDON H P. O. BOX 1	ATING IITCHCOCK 630 M 88210			
		Fax To:	NONE			
Received:	10/05/2020			Sampling Date:		10/02/2020
Reported:	10/06/2020			Sampling Type:		Soil
Project Name:	SCREECH OWL CTB			Sampling Condition	ו:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received E	By:	Tamara Oldaker
Project Location:	EDDY CTY, NM					

Sample ID: B - 4 (H002624-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	38.6	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	89.7 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	87.0 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		Cog oper Sheldon P. O. Box	RATING HITCHCOCK 1630		
		ARTESIA I	NM, 88210		
		Fax To:	NONE		
Received:	10/05/2020			Sampling Date:	10/02/2020
Reported:	10/06/2020			Sampling Type:	Soil
Project Name:	SCREECH OWL CTB			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM				

Sample ID: B - 5 (H002624-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	34.3	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	95.1 %	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.4 9	42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		Cog oper Sheldon	RATING HITCHCOCK		
		P. O. BOX ARTESIA	1630 NM. 88210		
		Fax To:	NONE		
Received:	10/05/2020			Sampling Date:	10/02/2020
Reported:	10/06/2020			Sampling Type:	Soil
Project Name:	SCREECH OWL CTB			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM				

Sample ID: B - 6 (H002624-06)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	34.9	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	<10.0	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	87.4	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.0	% 42.2-15	6						

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Celey D. Keene, Lab Director/Quality Manager



		COG OPER SHELDON	RATING HITCHCOCK		
		ARTESIA N	NM, 88210		
		Fax To:	NONE		
Received:	10/05/2020			Sampling Date:	10/02/2020
Reported:	10/06/2020			Sampling Type:	Soil
Project Name:	SCREECH OWL CTB			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	EDDY CTY, NM				

Sample ID: B - 8 (H002624-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2020	ND	2.32	116	2.00	1.02	
Toluene*	<0.050	0.050	10/05/2020	ND	2.27	113	2.00	1.06	
Ethylbenzene*	<0.050	0.050	10/05/2020	ND	2.34	117	2.00	0.999	
Total Xylenes*	<0.150	0.150	10/05/2020	ND	6.83	114	6.00	1.00	
Total BTEX	<0.300	0.300	10/05/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/06/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/05/2020	ND	229	114	200	5.73	
DRO >C10-C28*	183	10.0	10/05/2020	ND	226	113	200	7.69	
EXT DRO >C28-C36	39.2	10.0	10/05/2020	ND					
Surrogate: 1-Chlorooctane	103 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	106 9	42.2-15	6						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

	Relinquished by: Date: Time:	Relinquished by: Time:	Relinquished by: Date: Time:	78-8	5 B - 5	4 8 - 4	2 B - 3	2 B-2		LAB # SAMPLE IDENTIFICATION	Hozat		Comments:	Invoice to: Sheldon Hitchcock Receiving Laboratory:	Project Location: (county, state) EJdY, NM	Project Name:	Client Name: COG-Artesia	CONCHO	malysis Request of Chain of Custody Record
ORIGINAL COPY	Received by: Date: Time:	Received by: Date: Time:	Received by: Date: Time:	1	10:00	12.04	12:02	1 12:00 1 1 1	01 X X 85,11 2101	TIME WATER SOIL HCL HNO ₃ ICE # CONTA		SAMPIING MATRIX PRESERVATIVE S		Sampler Name: Sheldon Hitchcock	Project #:		Site Manager: Sheldon Hitchcock	One Concho Center/600/Illinois Avenue/Mildland, Texas Tel (432) 683-7443	
(Circle) HAND DELIVERED FEDEX UPS Tracking #:	Special Report Limits or TRRP Report	Sample Temperature S72 #13 Rush Charges Authorized	LAB USE ONLY							TPH 80 ⁻ BTEX 80 ⁻ Chloride	15M ((21B		- DRO -	MRO)			ANALYSIS REQUEST (Circle or Specify Method No.)	Page 1	Page of of 10

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Sheldon Hitchcock

Eddy, NM

eurofins Environment Testing Xenco

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 667900

COG Operating LLC, Artesia, NM

Project Name: Screech Owl CTB

 Date Received in Lab:
 Wed 07.22.2020 12:15

 Report Date:
 07.23.2020 13:50

Project Manager: Jessica Kramer

	Lab Id:	667900-0	01	667900-0	02	667900-0	003	667900-0	004	
Analysis Requested	Field Id:	B-7		B-9		B-10		B-11		
Analysis Requested	Depth:									
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	
	Sampled:	07.22.2020	11:20	07.22.2020	11:22	07.22.2020	11:24	07.22.2020	11:25	
BTEX by EPA 8021B	Extracted:	07.22.2020	14:00	07.22.2020	14:00	07.22.2020 14:00		07.22.2020 14:00		
	Analyzed:	07.22.2020	18:10	07.22.2020	18:31	07.22.2020	18:53	07.22.2020	19:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
Toluene		< 0.00198	0.00198	<0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
Ethylbenzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
m,p-Xylenes		< 0.00396	0.00396	< 0.00395	0.00395	< 0.00401	0.00401	< 0.00402	0.00402	
o-Xylene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
Total Xylenes		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
Total BTEX		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00201	0.00201	
Inorganic Anions by EPA 300/300.1	Extracted:	07.22.2020	15:00	07.22.2020	15:00	07.22.2020	15:00	07.22.2020	15:00	
	Analyzed:	07.22.2020	17:57	07.22.2020	18:14	07.22.2020	18:19	07.22.2020	18:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		40.6	9.98	29.7	9.98	34.4	9.90	48.7	9.90	
TPH By SW8015 Mod	Extracted:	07.22.2020	14:20	07.22.2020	14:20	07.22.2020	14:20	07.22.2020	14:20	
	Analyzed:	07.22.2020	15:22	07.22.2020	15:42	07.22.2020	16:03	07.22.2020	16:23	
	Units/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	
Diesel Range Organics		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	

BRL - Below Reporting Limit

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

Jession Vramer

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Environment Testing Xenco

Analytical Report 667900

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Screech Owl CTB

07.23.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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

07.23.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 667900 Screech Owl CTB Project Address: Eddy, NM

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667900. 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. 667900 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,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

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

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eurofins Environment Testing Xenco

Sample Cross Reference 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id	Matrix	Date Collected S	Sample Depth	Lab Sample Id
B-7	S	07.22.2020 11:20		667900-001
B-9	S	07.22.2020 11:22		667900-002
B-10	S	07.22.2020 11:24		667900-003
B-11	S	07.22.2020 11:25		667900-004

eurofins Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating LLC Project Name: Screech Owl CTB

Project ID: Work Order Number(s): 667900 Report Date: 07.23.2020 Date Received: 07.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Xenco

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id: B-7			Matrix: Soil			Date Received:07.22.2020 12:15			
Lab Sample Io	d: 667900-001		Date Coll	lected: 07.22	.2020 11:20				
Analytical Me	ethod: Inorganic Ani	ons by EPA 300/300.1					Prep Method: E3	600P	
Tech:	MAB						% Moisture:		
Analyst:	MAB		Date Prep	p: 07.22	.2020 15:00		Basis: We	et Weight	
Seq Number:	3132391								
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	40.6	9.98		mg/kg	07.22.2020 17:57		1
Analystcar Me Tech: Analyst: Seq Number:	DTH DTH 3132405	015 Mod	Date Prep	o: 07.22	.2020 14:20		% Moisture: Basis: We	et Weight	
Parameter									
Gasolina Panga		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasonne Range	Hydrocarbons	Cas Number PHC610	Result <50.0	RL 50.0		Units mg/kg	Analysis Date	Flag U	Dil
Diesel Range Or	Hydrocarbons ganics	Cas Number PHC610 C10C28DRO	Result <50.0 <50.0	RL 50.0 50.0		Units mg/kg mg/kg	Analysis Date 07.22.2020 15:22 07.22.2020 15:22	Flag U U	Dil 1 1
Diesel Range Or Motor Oil Range H	Hydrocarbons ganics Iydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835	Result <50.0 <50.0 <50.0	RL 50.0 50.0 50.0		Units mg/kg mg/kg mg/kg	Analysis Date 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22	Flag U U U	Dil 1 1 1
Diesel Range Or Motor Oil Range H Total TPH	Hydrocarbons ganics Iydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result <50.0 <50.0 <50.0 <50.0 <50.0	RL 50.0 50.0 50.0 50.0 50.0		Units mg/kg mg/kg mg/kg	Analysis Date 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22	Flag U U U U	Dil 1 1 1 1 1 1 1
Diesel Range Or Motor Oil Range H Total TPH Surrogate	Hydrocarbons ganics Iydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635 Cas	Result <50.0	RL 50.0 50.0 50.0 50.0 6 Recovery	Units	Units mg/kg mg/kg mg/kg Limits	Analysis Date 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 Analysis Date	Flag U U U U e Flag	Dil 1 1 1
Diesel Range Or Motor Oil Range H Total TPH Surrogate 1-Chlorood	Hydrocarbons ganics Iydrocarbons (MRO) ctane	Cas Number PHC610 C10C28DRO PHCG2835 PHC635 Cas 111-	Result <50.0	RL 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 103	Units %	Units mg/kg mg/kg mg/kg Limits 70-135	Analysis Date 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 07.22.2020 15:22 Analysis Date 07.22.2020 15:22	Flag U U U U e Flag 22	Dil 1 1 1

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	B-7	Matrix:	Soil	Date Receive	d:07.22.2020 12:15
Lab Sample Io	d: 667900-001	Date Collected	1:07.22.2020 11:20		
Analytical Me	ethod: BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.22.2020 14:00	Basis:	Wet Weight
Seq Number:	3132403				
D (

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	07.22.2020 18:10	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	07.22.2020 18:10	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	07.22.2020 18:10		
1,4-Difluorobenzene		540-36-3	102	%	70-130	07.22.2020 18:10		

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Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id: B-9			Matrix:	Matrix: Soil			Date Received:07.22.2020 12:15		
Lab Sample I	d: 667900-002		Date Co	ollected: 07.22	2.2020 11:22				
Analytical Me	ethod: Inorganic Ani	ions by EPA 300/300.	1				Prep Method: E30	0P	
Tech:	MAB						% Moisture:		
Analyst:	MAB		Date Pr	ep: 07.22	2.2020 15:00		Basis: Wet	Weight	
Seq Number:	3132391								
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	29.7	9.98		mg/kg	07.22.2020 18:14		1
Analytical Me Tech: Analyst: Seq Number:	ethod: TPH By SW8 DTH DTH 3132405	015 Mod	Date Pr	ep: 07.22	2.2020 14:20		Prep Method: SW3 % Moisture: Basis: Wet	8015P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range	Hydrocarbons	PHC610	<50.0	50.0		mg/kg	07.22.2020 15:42	U	1
Diesel Range Or	ganics	C10C28DRO	< 50.0	50.0		mg/kg	07.22.2020 15:42	U	1
Motor Oil Range H	Hydrocarbons (MRO)	PHCG2835	<50.0	50.0		mg/kg	07.22.2020 15:42	U	1
Total TPH		PHC635	<50.0	50.0		mg/kg	07.22.2020 15:42	U	1
Surrogate		Cas	Number	% Recovery	Units	Limits	Analysis Date	Flag	
		- Cu		/ Recovery	Onto	Limits	1111113010 2000	8	
1-Chlorood	ctane	111	-85-3	105	%	70-135	07.22.2020 15:42	8	

Xenco

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	Sample Id: B-9			Soil	Date Receive	d:07.22.2020 12:	15
Lab Sample I	d: 667900-002		Date Collected	1:07.22.2020 11:22			
Analytical Me	ethod: BTEX by EPA 802	21B			Prep Method:	: SW5035A	
Tech:	MAB				% Moisture:		
Analyst:	MAB		Date Prep:	07.22.2020 14:00	Basis:	Wet Weight	
Seq Number:	3132403						
Paramotor		Cas Number	Recult DI	T.	ita Analysia F	ata Elag	Di

Parameter	Cas Numbe	r Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
m,p-Xylenes	179601-23-1	< 0.00395	0.00395		mg/kg	07.22.2020 18:31	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	07.22.2020 18:31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	07.22.2020 18:31		
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.22.2020 18:31		

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Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	B-10	Matrix:	Matrix: Soil Date Received:07.22.2020 1						
Lab Sample I	d: 667900-003		Date C	ollected: 07.2	2.2020 11:24				
Analytical Me	ethod: Inorganic Ani	ions by EPA 300/300.	1				Prep Method: E30)0P	
Tech:	MAB						% Moisture:		
Analyst:	MAB		Date Pr	rep: 07.2	2.2020 15:00		Basis: We	t Weight	
Seq Number:	3132391								
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	34.4	9.90		mg/kg	07.22.2020 18:19		1
Analytical Me Tech: Analyst: Seq Number:	ethod: TPH By SW8 DTH DTH 3132405	015 Mod	Date Pr	rep: 07.2	2.2020 14:20		Prep Method: SW % Moisture: Basis: We	8015P t Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range	Hydrocarbons	PHC610	<49.9	49.9		mg/kg	07.22.2020 16:03	U	1
Diesel Range Or	ganics	C10C28DRO	<49.9	49.9		mg/kg	07.22.2020 16:03	U	1
Motor Oil Range H	Iydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	07.22.2020 16:03	U	1
Total TPH		PHC635	<49.9	49.9		mg/kg	07.22.2020 16:03	U	1
Surrogate		Cas	Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chloroo									
1 Childred	ctane	111	-85-3	102	%	70-135	07.22.2020 16:03	3	

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	B-10	Matrix:	Soil	Date Received	d:07.22.2020 12:15			
Lab Sample Id:	: 667900-003	Date Collected	1:07.22.2020 11:24					
Analytical Met	hod: BTEX by EPA 8021B			Prep Method:	SW5035A			
Tech:	MAB			% Moisture:				
Analyst:	MAB	Date Prep:	07.22.2020 14:00	Basis:	Wet Weight			
Seq Number:	3132403							
		_						

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	07.22.2020 18:53	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	07.22.2020 18:53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	07.22.2020 18:53		
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.22.2020 18:53		

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	B-11		Matrix:	Soil			Date Received:07.22.2020 12:15				
Lab Sample Io	d: 667900-004		Date Co	ollected: 07.2	2.2020 11:25						
Analytical Me	ethod: Inorganic Ani	ons by EPA 300/300.	1				Prep Method: E300)P			
Tech:	MAB			07.0	2 2020 15 00		% Moisture:	W 7 * 17			
Analyst:	MAB		Date Pr	ep: 07.2	2.2020 15:00		Basis: Wet	Weight			
Seq Number:	3132391										
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil		
Chloride		16887-00-6	48.7	9.90		mg/kg	07.22.2020 18:25		1		
Analytical Me Tech: Analyst: Seq Number:	ethod: TPH By SW8 DTH DTH 3132405	015 Mod	Date Pr	ep: 07.2	2.2020 14:20		Prep Method: SW8 % Moisture: Basis: Wet	015P Weight			
Parameter		Cas Number	Result	RL		Units	Analysis Date	Flag	Dil		
Gasoline Range	Hydrocarbons	PHC610	<50.0	50.0		mg/kg	07.22.2020 16:23	U	1		
Diesel Range Or	ganics	C10C28DRO	<50.0	50.0		mg/kg	07.22.2020 16:23	U	1		
Motor Oil Range H	lydrocarbons (MRO)	PHCG2835	<50.0	50.0		mg/kg	07.22.2020 16:23	U	1		
Total TPH		PHC635	<50.0	50.0		mg/kg	07.22.2020 16:23	U	1		
Surrogate		Cas	s Number	% Recovery	Units	Limits	Analysis Date	Flag			
1-Chlorooc	ctane	111	-85-3	101	%	70-135	07.22.2020 16:23				
o-Terpheny	yl	84-	15-1	101	%	70-135	07.22.2020 16:23				

Certificate of Analytical Results 667900

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id:	B-11	Matrix:	Soil	Date Receive	d:07.22.2020 12:15
Lab Sample Id	: 667900-004	Date Collected			
Analytical Met	hod: BTEX by EPA 8021B			Prep Method:	SW5035A
Analyst:	MAB	Date Prep:	07.22.2020 14:00	Basis:	Wet Weight
Seq Number:	3132403				
_		-			

Parameter	Cas Numbe	er Kesult	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	07.22.2020 19:14	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	07.22.2020 19:14	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	07.22.2020 19:14		
4-Bromofluorobenzene		460-00-4	106	%	70-130	07.22.2020 19:14		

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 Det	ection Limit	LOD Limit of Detection	
PQL	Practical Quantitation Limit	MQL Method Qua	antitation Limit	LOQ Limit of Quantitation	n
DL	Method Detection Limit				
NC	Non-Calculable				
SMP	Client Sample		BLK	Method Blank	
BKS/I	LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	catory Control Sample Duplicate
MD/S	D Method Duplicate/Samp	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NE	ELAC 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 667900

COG Operating LLC

Screech Owl CTB

Analytical Method: Seq Number:	Inorganic <i>A</i> 3132391	Anions by	y EPA 300/	/300.1	Matrix:	Solid			Prep Method: E300P Date Prep: 07.22.2020				
MB Sample Id:	7707891-1-	BLK		LCS Sar	nple Id:	7707891-1	I-BKS		LCS	D Sample	Id: 770	7891-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride		<10.0	250	261	104	269	108	90-110	3	20	mg/kg	07.22.2020 17:46	
Analytical Method:	Inorganic A	Anions by	y EPA 300/	/300.1	.	G .1			Pı	ep Metho	d: E30	0P	
Seq Number:	3132391 667000 001			MS Sat	matrix:	5011 667000 00)1 S		MS	Date Pre	p: 07.2	22.2020 000.001.SD	
Parameter	00/900-001	Parent	Spike	MS Sal MS Bogult	MS	MSD	MSD	Limits	%RPD	RPD	Units	Analysis	Flag
Chloride		40.6	200	244	% Rec 102	Result 244	% Rec 102	90-110	0	20	mg/kg	07.22.2020 18:03	
Analytical Method:	Inorganic A	Anions by	y EPA 300/	/300.1					Pı	ep Metho	d: E30	00P	
Seq Number:	3132391				Matrix:	Soil				Date Pre	p: 07.2	22.2020	
Parent Sample Id:	667902-007	,		MS Sar	nple Id:	667902-00)7 S		MS	D Sample	Id: 667	902-007 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride		636	200	838	101	838	101	90-110	0	20	mg/kg	07.22.2020 19:21	
Analytical Method: Seq Number:	TPH By SV 3132405	V8015 M	od		Matrix:	latrix: Solid				ep Metho Date Pre	d: SW p: 07.2	8015P 22.2020	
MB Sample Id:	7707899-1-	BLK		LCS Sar	nple Id:	7707899-1	I-BKS		LCS	D Sample	Id: 770	7899-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroca Diesel Range Organics	arbons	<50.0 <50.0	1000 1000	935 1040	94 104	1010 1120	101 112	70-135 70-135	8 7	35 35	mg/kg mg/kg	07.22.2020 10:11 07.22.2020 10:11	
Surrogate		MB %Rec	MB Flag	L %	CS Rec	LCS Flag	LCSI %Re) LCSI c Flag	D Li g	mits	Units	Analysis Date	
1-Chlorooctane o-Terphenyl		108 109		1	22 10		126 118		70 70	-135 -135	% %	07.22.2020 10:11 07.22.2020 10:11	
Analytical Method:	: TPH By SW8015 Mod								Pı	ep Metho	d: SW	8015P	
Seq Number:	3132405			MB Sar	Matrix: nple Id:	Solid 7707899-1	I-BLK			Date Pre	p: 07.2	22.2020	
Parameter				MB Result							Units	Analysis Date	Flag
Motor Oil Range Hydrocart	oons (MRO)			<50.0							mg/kg	07.22.2020 09:50	

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference $LCS = Laboratory \ Control \ Sample \\ A = Parent \ Result \\ C = MS/LCS \ Result \\ E = MSD/LCSD \ Result$

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

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Final 1.000
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QC Summary 667900

COG Operating LLC

Screech Owl CTB

Environment Testing

Analytical Method:						Pı	ep Method	: SW	8015P				
Seq Number:	3132405			Matrix: Soil						Date Prep	: 07.2	22.2020	
Parent Sample Id: 667902-007				MS Sample Id: 667902-007 S				MS	D Sample	d: 667	902-007 SD		
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroca	arbons	< 50.0	1000	863	86	878	88	70-135	2	35	mg/kg	07.22.2020 14:42	
Diesel Range Organics		<50.0	1000	978	98	959	96	70-135	2	35	mg/kg	07.22.2020 14:42	
Surrogate				M %1	IS Rec	MS Flag	MSD %Ree	MSD c Flag) Li	mits	Units	Analysis Date	
1-Chlorooctane				1	15		117		70	-135	%	07.22.2020 14:42	
o-Terphenyl				1	10		105		70	-135	%	07.22.2020 14:42	

Analytical Method:	BTEX by EPA 8021	B					Prep Method: SW5035A						
Seq Number:	3132403			Matrix:	Solid	lid Date Prep:					07.22.2020		
MB Sample Id:	7707875-1-BLK		LCS Sample Id: 7707875-1-BKS			LCS	D Sampl	e Id: 770)7875-1-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	0.115	115	0.122	122	70-130	6	35	mg/kg	07.22.2020 15:28		
Toluene	< 0.00200	0.100	0.110	110	0.116	116	70-130	5	35	mg/kg	07.22.2020 15:28		
Ethylbenzene	< 0.00200	0.100	0.102	102	0.108	108	71-129	6	35	mg/kg	07.22.2020 15:28		
m,p-Xylenes	< 0.00400	0.200	0.206	103	0.218	109	70-135	6	35	mg/kg	07.22.2020 15:28		
o-Xylene	< 0.00200	0.100	0.102	102	0.108	108	71-133	6	35	mg/kg	07.22.2020 15:28		
Surrogate	MB %Rec	MB Flag	L4 %]	CS Rec	LCS Flag	LCSI %Re) LCSI c Flag	DL ;	imits	Units	Analysis Date		
1,4-Difluorobenzene	101		1	00		100)	70	-130	%	07.22.2020 15:28		
4-Bromofluorobenzene	103		1	02		102		70	-130	%	07.22.2020 15:28		

Analytical Method: Sea Number:	BTEX by EPA 8021 3132403		Matrix	Soil			Prep Method: SW5035A Date Prep: 07.22.2020						
Parent Sample Id:	667902-007		MS Sample Id:		667902-007 S			MS	D Sampl	e Id: 667	902-007 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	0.125	126	0.113	113	70-130	10	35	mg/kg	07.22.2020 16:32		
Toluene	< 0.00199	0.0996	0.117	117	0.106	106	70-130	10	35	mg/kg	07.22.2020 16:32		
Ethylbenzene	< 0.00199	0.0996	0.110	110	0.0989	99	71-129	11	35	mg/kg	07.22.2020 16:32		
m,p-Xylenes	< 0.00398	0.199	0.224	113	0.200	101	70-135	11	35	mg/kg	07.22.2020 16:32		
o-Xylene	< 0.00199	0.0996	0.110	110	0.0985	99	71-133	11	35	mg/kg	07.22.2020 16:32		
Surrogate			N %]	1S Rec	MS Flag	MSD %Re) MSI c Flag	D Li g	imits	Units	Analysis Date		
1,4-Difluorobenzene			ç	99		98		70	-130	%	07.22.2020 16:32		

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

4-Bromofluorobenzene

[D] = 100*(C-A) / B $\begin{array}{l} \text{[D]} & = 100 \ (\text{C-E}) \ (\text{C-E}) \ | \\ \text{[D]} & = 100 \ (\text{C}) \ (\text{B}) \\ \text{Log Diff.} & = \text{Log(Sample Duplicate)} \ - \text{Log(Original Sample)} \end{array}$ LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result

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

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07.22.2020 16:32

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70-130

%

	nquished by:	inquished by:	inquished by:		e	C	2)e.	LAB #			Comments:	Receiving Laborator	state)	Project Location:	Project Name	Client Name	uge
	Date: Time:	Date: Time:	Date: Time:			-10	- 4	5-1	SAMPLE IDENTIFICATION			Xenco	Sheldon Hitchcock	XXX, NM	SUPERIN OUL CTR	COG-Artesia	ONCHO	
ORIGINAL COPY	Received by: Date: Time:	Received by Date: Time:	Received by:		· 11.25 × × 11.1	1 11:24 × × 11	1 1 × × 22;11 1	7/22 11:20 X X 1 0	UATE TIME WATER SOIL HCL HNO ₃ ICE # CONTAINE	SAMPLING MATRIX PRESERVATIVE SAMPLING MATRIX		Sampler Name: Sheldon Hitchcock		Project #:		Site Manager: Sheldon Hitchcock	One Concho Center/600/Illinois AvenueMidland, Texas Tel (432) 683-7443	
(Circle) HAND DELIVERED FEDEX UPS Tracking #:	Sample Temperature A^{RUSPI} : Same Day 24 hr de hr / 2 hr $\exists c \mathcal{D} / \exists v 0$ Rush Charges Authorized Special Report Limits or TRRP Report	LAB USE ONLY							TPH 8015M BTEX 8021B Chloride	(GRO -	DRO - M	MRO)			Circle or Specify Method No.)	ANALYSIS REQUEST		Page / of

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC	Acceptable Temperature Range: 0 - 6 degC							
Date/ Time Received: 07.22.2020 12.15.00 PM	Air and Metal samples Acceptable Range: Ambient Temperature Measuring device used : T-NM-007							
Work Order #: 667900								
Sample Rece	eipt Checklist	Comments						
#1 *Temperature of cooler(s)?	3							
#2 *Shipping container in good condition?	Yes							
#3 *Samples received on ice?	Yes							
#4 *Custody Seals intact on shipping container/ cooler?	Yes							
#5 Custody Seals intact on sample bottles?	Yes							
#6*Custody Seals Signed and dated?	Yes							
#7 *Chain of Custody present?	Yes							
#8 Any missing/extra samples?	No							
#9 Chain of Custody signed when relinquished/ received?	Yes							
#10 Chain of Custody agrees with sample labels/matrix?	Yes							
#11 Container label(s) legible and intact?	Yes							
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers,						
#13 Samples properly preserved?	Yes							
#14 Sample container(s) intact?	Yes							
#15 Sufficient sample amount for indicated test(s)?	Yes							
#16 All samples received within hold time?	Yes							
#17 Subcontract of sample(s)?	No							
#18 Water VOC samples have zero headspace?	N/A							

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

Analyst:

PH Device/Lot#:

Checklist completed by: Date: 07.22.2020 Elizabeth McClellan

Checklist reviewed by: Jessica VRAMER Jessica Kramer

Date: 07.22.2020

Project Id:

Project Location:

Contact:

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eurofins Environment Testing Xenco

Sheldon Hitchcock

Certificate of Analysis Summary 674983

COG Operating LLC, Artesia, NM

Project Name: Screech Owl CTB

 Date Received in Lab:
 Tue 10.13.2020 11:50

 Report Date:
 10.13.2020 18:21

Project Manager: Jessica Kramer

	Lab Id:	674983-001			
Analysis Requested	Field Id:	B-8			
	Depth:				
	Matrix:	SOIL			
	Sampled:	10.13.2020 10:20			
BTEX by EPA 8021B	Extracted:	10.13.2020 13:51			
	Analyzed:	10.13.2020 15:52			
	Units/RL:	mg/kg RL			
Benzene		<0.00198 0.00198			
Toluene		<0.00198 0.00198			
Ethylbenzene		<0.00198 0.00198			
m,p-Xylenes		<0.00397 0.00397			
o-Xylene		<0.00198 0.00198			
Total Xylenes		<0.00198 0.00198			
Total BTEX		<0.00198 0.00198			
Chloride by EPA 300	Extracted:	10.13.2020 13:40			
	Analyzed:	10.13.2020 15:48			
	Units/RL:	mg/kg RL			
Chloride		19.7 9.98			
TPH By SW8015 Mod	Extracted:	10.13.2020 14:00			
	Analyzed:	10.13.2020 16:56			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons		<50.0 50.0			
Diesel Range Organics		<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0			
Total TPH		<50.0 50.0			

BRL - Below Reporting Limit

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

Jession Vramer

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Environment Testing Xenco

Analytical Report 674983

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Screech Owl CTB

10.13.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

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

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

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

eurofins Environment Testing

10.13.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 674983 Screech Owl CTB Project Address:

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674983. 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. 674983 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,

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Jessica Kramer Project Manager

A Small Business and Minority Company

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

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Environment Testin Xenco

Sample Cross Reference 674983

Screech Owl CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
B-8	S	10.13.2020 10:20		674983-001

eurofins Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating LLC Project Name: Screech Owl CTB

Project ID: Work Order Number(s): 674983 Report Date: 10.13.2020 Date Received: 10.13.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Xenco

Certificate of Analytical Results 674983

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id: B-8		Matrix	: Soil			Date Received:10.13.2020 11:50				
Lab Sample Id: 674983-001		Date C	ollected: 10.1	10.13.2020 10:20						
Analytical Met	thod: Chloride by El	PA 300					Prep Method:	E300P		
Tech:	MAB									
Analyst:	MAB		Date P	rep: 10.1	3.2020 13:40		% Moisture:	*** * ***	• • .	
Seq Number:	3139590						Basis:	wet we	ight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ite F	lag	Dil
Chloride		16887-00-6	19.7	9.98		mg/kg	10.13.2020 15	:48		1
Analytical Met Tech: Analyst: Seq Number:	thod: TPH By SW80 DTH DTH 3139598	015 Mod	Date P	rep: 10.1	3.2020 14:00		Prep Method: % Moisture: Basis:	SW8015 Wet We	5P ight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ite F	lag	Dil
Gasoline Range H	Iydrocarbons	PHC610	<50.0	50.0		mg/kg	10.13.2020 16	:56	U	1
Diesel Range Org	ganics	C10C28DRO	<50.0	50.0		mg/kg	10.13.2020 16	:56	U	1
Motor Oil Range Hy	drocarbons (MRO)	DUCC2925	<50.0	50.0		mg/kg	10.13.2020 16	:56	U	1
Total TPH		PHCG2855				00				1
		PHC62855 PHC635	<50.0	50.0		mg/kg	10.13.2020 16	:56	U	1 1
Surrogate		РНС62855 РНС635	<50.0 Cas Number	50.0 % Recovery	Units	mg/kg	10.13.2020 16 Analysis I	:56 Date	U Flag	1 1 1
Surrogate 1-Chlorooct	tane	РНС635	<50.0 C as Number 111-85-3	50.0 % Recovery 89	Units %	mg/kg Limits 70-135	10.13.2020 16 Analysis I 10.13.2020	556 Date 16:56	U Flag	1 1

Certificate of Analytical Results 674983

COG Operating LLC, Artesia, NM

Screech Owl CTB

Sample Id: B-8		Matrix:	Soil	Date Received:10.13.2020 11:50
Lab Sample Id: 674983-001	Date Collected	1: 10.13.2020 10:20		
Analytical Method: BTEX by EPA 8	021B			Prep Method: SW5035A
Tech: MAB				
Analyst: MAB		Date Prep:	10.13.2020 13:51	% Moisture: Basis: Wat Waight
Seq Number: 3139593				Dasis. Wet weight
Demonstern	Coo Normhan	Dogult DI		

1 al allietel	Cas Mulliot	i Ktsuit	KL		Units	Analysis Date	riag	DII
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	10.13.2020 15:52	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.13.2020 15:52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	70-130	10.13.2020 15:52		
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.13.2020 15:52		
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 Det	ection Limit	LOD Limit of Detection	
PQL	Practical Quantitation Limit	MQL Method Qua	antitation Limit	LOQ Limit of Quantitation	n
DL	Method Detection Limit				
NC	Non-Calculable				
SMP	Client Sample		BLK	Method Blank	
BKS/I	LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	ratory Control Sample Duplicate
MD/S	D Method Duplicate/Samp	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NE	LAC certification not offered	for this compound.			

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Environment Testing

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QC Summary 674983

COG Operating LLC

Screech Owl CTB

Analytical Method: Seq Number: MB Sample Id:	Chloride 3139590 7713162-	• by EPA 3(-1-BLK	00	LCS Sar	Matrix: nple Id:	Solid 7713162-1	I-BKS		P LCS	rep Metho Date Pre D Sample	d: E30 p: 10. Id: 771	00P 13.2020 3162-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Bosult	LCSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride		<10.0	250	265	106	265	106 I	90-110	0	20	mg/kg	10.13.2020 13:53	
Analytical Method: Seq Number:	Chloride 3139590	by EPA 30	0	MS Sat	Matrix:	Soil 674930-00	2 9(P	rep Metho Date Pre	d: E30 p: 10. Id: 674	00P 13.2020 1930-009 SD	
Paramatan	074950 0	Parent	Spike	MS	MS	MSD	MSD	Limits	%RPD	RPD	Units	Analysis	Flag
Chloride		Result 261	Amount 199	Result 467	%Rec 104	Result 459	%Rec 99	90-110	2	Limit 20	mg/kg	Date 10.13.2020 14:10	Ting
Analytical Method: Seq Number: MB Sample Id:	TPH By 3139598 7713178-	SW8015 M 1-BLK	od	LCS Sar	Matrix: nple Id:	Solid 7713178-	I-BKS		P LCS	rep Metho Date Pre D Sample	d: SW p: 10. Id: 771	78015P 13.2020 13178-1-BSD	
Parameter		MB Posult	Spike	LCS Result		LCSD Bogelt		Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydroca Diesel Range Organics	arbons	<50.0 <50.0	1000 1000	834 968	7 5 Rec 83 97	881 1030	88 103	70-135 70-135	5 6	35 35	mg/kg mg/kg	10.13.2020 15:16 10.13.2020 15:16	
Surrogate		MB %Rec	MB Flag	L %	CS Rec	LCS Flag	LCSI %Re) LCS c Flag	D L g	imits	Units	Analysis Date	
1-Chlorooctane o-Terphenyl		95 91		1	04 96		112 101		70 70)-135)-135	% %	10.13.2020 15:16 10.13.2020 15:16	
Analytical Method: Seq Number:	TPH By 3139598	SW8015 M	od	MB Sar	Matrix:	Solid 7713178-:	I-BLK		Р	rep Metho Date Pre	d: SW p: 10.	78015P 13.2020	
Parameter				MB	-						Units	Analysis	Flag
Motor Oil Range Hydrocart	oons (MRO)			Result <50.0							mg/kg	Date 10.13.2020 14:55	
Analytical Method: Seq Number: Parent Sample Id:	TPH By 3139598 674930-0	SW8015 M	od	MS Sar	Matrix: nple Id:	Soil 674930-00	01 S		P MS	rep Metho Date Pre D Sample	d: SW p: 10. Id: 674	78015P 13.2020 4930-001 SD	
Parameter		Parent	Spike	MS	MS	MSD	MSD	Limits	%RPD	RPD Limit	Units	Analysis	Flag
Gasoline Range Hydroca Diesel Range Organics	arbons	<49.8 58.8	996 996	883 1110	% Kec 89 106	869 1090	% Rec 87 103	70-135 70-135	2 2	35 35	mg/kg mg/kg	10.13.2020 16:16 10.13.2020 16:16	
Surrogate				N %	1S Rec	MS Flag	MSD %Re	o MSI c Flag	D L g	imits	Units	Analysis Date	
1-Chlorooctane o-Terphenyl				1 1	12 09		111 108		7(7()-135)-135	% %	10.13.2020 16:16 10.13.2020 16:16	
MS/MSD Percent Recover Relative Percent Differenc LCS/LCSD Recovery Log Difference	y e	[D] = 100*(C RPD = 200* [D] = 100 * (C Log Diff. = Lo	-A) / B (C-E) / (C+E) C) / [B] og(Sample Du	 plicate) - Log	(Original S	Sample)	Lu A C E	CS = Labora = Parent R = MS/LCS = MSD/LC	atory Contr esult S Result CSD Result	rol Sample t	MS = B = S D = M	Matrix Spike pike Added ISD/LCSD % Rec	

. Released to Imaging: 4/5/2021 2:29:57 PM

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Received by OCD: 11/5/2020 7:29:42 AM

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Environment Testing

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QC Summary 674983

COG Operating LLC

Screech Owl CTB

Analytical Method:	BTEX by EPA 8021	B						Pi	rep Metho	od: SW	5035A	
Seq Number:	3139593		I	Matrix:	Solid				Date Pr	ep: 10.1	3.2020	
MB Sample Id:	7713165-1-BLK		LCS San	ple Id:	7713165-	I-BKS		LCS	D Sample	e Id: 771	3165-1-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	0.108	108	0.104	104	70-130	4	35	mg/kg	10.13.2020 12:42	
Toluene	< 0.00200	0.100	0.103	103	0.100	100	70-130	3	35	mg/kg	10.13.2020 12:42	
Ethylbenzene	< 0.00200	0.100	0.0939	94	0.0908	91	71-129	3	35	mg/kg	10.13.2020 12:42	
m,p-Xylenes	< 0.00400	0.200	0.188	94	0.182	91	70-135	3	35	mg/kg	10.13.2020 12:42	
o-Xylene	< 0.00200	0.100	0.0937	94	0.0909	91	71-133	3	35	mg/kg	10.13.2020 12:42	
Surrogate	MB %Rec	MB Flag	L0 %]	CS Rec	LCS Flag	LCSI %Ree) LCSI c Flag	D Li g	imits	Units	Analysis Date	
1,4-Difluorobenzene	98		9	8		97		70	-130	%	10.13.2020 12:42	
4-Bromofluorobenzene	84		8	3		84		70	-130	%	10.13.2020 12:42	

Analytical Method: Seq Number: Parent Sample Id:	I MS San	Matrix: nple Id:	Soil 674950-00		Prep Method: SW5035A Date Prep: 10.13.2020 MSD Sample Id: 674950-001 SD							
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0996	100	0.109	109	70-130	9	35	mg/kg	10.13.2020 14:12	
Toluene	< 0.00200	0.0998	0.0969	97	0.107	107	70-130	10	35	mg/kg	10.13.2020 14:12	
Ethylbenzene	< 0.00200	0.0998	0.0897	90	0.0987	99	71-129	10	35	mg/kg	10.13.2020 14:12	
m,p-Xylenes	< 0.00399	0.200	0.182	91	0.201	100	70-135	10	35	mg/kg	10.13.2020 14:12	
o-Xylene	< 0.00200	0.0998	0.0891	89	0.0985	99	71-133	10	35	mg/kg	10.13.2020 14:12	
Surrogate			M %1	IS Rec	MS Flag	MSD %Ree	MSD c Flag		imits	Units	Analysis Date	
1,4-Difluorobenzene		96			98		70-130		%	10.13.2020 14:12		
4-Bromofluorobenzene			8	3		86		70	-130	%	10.13.2020 14:12	

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference $LCS = Laboratory \ Control \ Sample \\ A = Parent \ Result \\ C = MS/LCS \ Result \\ E = MSD/LCSD \ Result$

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

.

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Received by G	CD: Date: Time:	75/2020 7:29: elinquished by: Date: Time:		8-8	LAB # SAMPLE IDENTIFICATION	Comments:	Invoice to: Sheldon Hitchcock Receiving Laboratory:	Project Location: (county, state)	Client Name: COG-Artesia	CONCHO	age Analysis Request of Chain of Custody Record	6 of 82
ORIGINAL COPY	Received by: Date: Time:	Received by: Date: Time:		1 × × × 1	DATE TIME WATER SOIL TIME WATER SOIL HCL HNO3 ICE # CONTAINERS (C)omposite/(G)ra		Sampler Name:	Project #:	Stie Manager: Sheldon Hitchcock	One Condro Center/600/Illinois Avenue/Midland, Texas Tel (432) 683-7443		
(Circle) HAND DELIVERED FEDEX UPS Tracking #:	Special Report Limits or TRRP Report	LAB USE ONLY REMARKS: Sample Temperature Image: Sample Temperature Q.4 Q.3 Image: Temperature Image: Temperature Q.4 Q.3 Image: Temperature Image: Temperature Q.4 Q.4 Image: Temperature Image: Temperature Image: Temperature Image: Temperature Image: Temperature Image: Temperature Image: Temperature Temperature Image: Tempe			TPH 8015M (GR BTEX 8021B Chloride	0 - DRO - MR(D)		ANALYSIS REQUEST (Circle or Specify Method No.)		Page 1 of 1	586htg)

APPENDIX D



COGOPERATINGLLC SCREECH OWL CTB ULK SEC.18-T26S-R27E EDDY COUNTY, NM

LAT. 32.039236 LONG. -104.231222









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Oil Conservation Division

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.

<u>Closure Report Attachment Checklist</u>: Each of the following in	tems must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	C 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 comple and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rer human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the con accordance with 19.15.29.13 NMAC including notification to the O Printed Name:	te to the best of my knowledge and understand that pursuant to OCD rules n release notifications and perform corrective actions for releases which a C-141 report by the OCD does not relieve the operator of liability nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for ations. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete.
Signature: Sheldon guitan	Date:
email:	Telephone:
ACD Ark	
Received by: Robert Hamlet	Date: 4/5/2021
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by: <u>Robert Hamlet</u>	Date: 4/5/2021
Printed Name: <u>Robert Hamlet</u>	Title: Environmental Specialist - Advanced

District I 1625 N. French Dr., Hobbs, NM 88240

District II

District IV

Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

District III 1000 Rio Brazos Rd., Aztec, NM 87410

CONDITIO	NS

Action 11082

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS OF APPROVAL

Operator:				OGRID:	Action Number:	Action Type:
COG OPERATING LLC		600 W Illinois Ave	Midland, TX79701	229137	11082	C-141
OCD Reviewer	Condition					
rhamlet	We have received your	closure report and final C-141 for	or Incident #NRM2011862082 SCREECH OWL CTB_that	ak you. This closure is approv	red	